

FUNDING THE NATION'S FREIGHT SYSTEM

(113-38)

HEARING
BEFORE THE
PANEL ON
21st-CENTURY FREIGHT TRANSPORTATION
OF THE
COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES
ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

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**Committee on Transportation and Infrastructure
U.S. House of Representatives**

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Washington, DC 20515

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October 8, 2013

SUMMARY OF SUBJECT MATTER

TO: Members, Panel on 21st Century Freight Transportation
FROM: Staff, Panel on 21st Century Freight Transportation
RE: Panel Hearing on "Funding the Nation's Freight System"

PURPOSE

The Panel on 21st Century Freight Transportation will meet on Thursday, October 10, 2013, at 1:00 p.m., in 2167 Rayburn House Office Building to receive testimony related to the ways in which freight projects can be funded. At this hearing, the Panel will receive testimony on the various proposals on ways to raise new revenue and use existing revenue more wisely in the funding of freight infrastructure projects across the Nation. The Committee will hear from the Honorable Sean T. Connaughton, Secretary of the Virginia Department of Transportation; Leif Dormsjo, Deputy Secretary of the Maryland Department of Transportation; Robert D. Atkinson, President of the Information Technology and Innovation Foundation; Jack L. Schenendorf, Of Counsel for Covington and Burling, LLP; and David Seltzer, Principal for Mercator Advisors.

BACKGROUND

A safe, efficient, and reliable intermodal freight transportation network is critical to the Nation's long-term economic health and competitiveness. Unfortunately, the Congressionally-established National Surface Transportation Policy and Revenue Commission found that over the last several decades, investment in the Nation's freight network has not kept pace with the needs of the increasingly global economy. These investments are generated through a combination of public and private sources.

Highways

The landmark Federal-Aid Highway Act of 1956 (P.L. 84-627) authorized a 41,000-mile National System of Interstate and Defense Highways and established the Highway Trust Fund. The revenues capitalizing the Highway Trust Fund are collected primarily from users of the highway system through federal taxes on fuels and various taxes on trucks.

Since the enactment of this legislation, funding from the Highway Trust Fund (HTF) has been provided to states via formula for the planning and construction of key highway projects that enable the movement of freight. Most highway-related freight projects, as well as some freight rail and freight intermodal projects, are currently eligible to receive funding under one or more existing Federal surface transportation programs. Many large freight projects, however, are multimodal in scope, and some aspects of these projects may be ineligible for funding from the HTF. This puts project sponsors in the position of having to cobble together funding for large multimodal freight projects from a variety of different sources.

The HTF is also facing a significant revenue shortfall, raising questions about the ability of the HTF to be able to sustain current investment levels. In recent years, outlays from the HTF have been significantly greater than the amount of revenues collected in highway user fee revenues. As a result, between fiscal year 2008 and fiscal year 2014, Congress has transferred approximately \$54 billion from the General Fund to maintain the solvency of the HTF. This HTF solvency issue is expected to continue, with CBO projecting that the HTF will face a cash deficit of \$126 billion over fiscal year 2012 to fiscal year 2023.

Harbor Maintenance Trust Fund

The Harbor Maintenance Trust Fund (HMTF) is also a source of funding for freight projects. This trust fund is capitalized by revenues raised by the Harbor Maintenance Tax (HMT). The HMT, an ad valorem tax, is collected on maritime imports and is assessed at a rate of 0.125 percent of cargo value (\$1.25 per \$1,000 in cargo value). The tax revenues are deposited into the HMTF from which Congress appropriates funds for dredging harbor channels. In recent years, HMTF annual expenditures appropriated for harbor maintenance have remained relatively flat.

Transportation Investment Generating Economic Recovery (TIGER)

The Transportation Investment Generating Economic Recovery (TIGER) discretionary grant program is funded through the General Fund of the Treasury and administered by the Department of Transportation (DOT). The TIGER program was originally created as part of the American Recovery and Reinvestment Act of 2009 (P.L. 111-5) and is a competitive grant program whereby DOT distributes appropriated funds for transportation infrastructure projects around the Nation. The TIGER program has been funded every year since its inception in 2009.

Under DOT's TIGER grants, many freight projects have successfully received funding. However, due to the demand and structural limitations of the TIGER program as well as the large expense of many key freight transportation facilities, the dollar amount of each grant under TIGER is generally insufficient to fund individual freight projects in significant measure. As such, the TIGER program is helpful in bringing freight projects online, but without additional resources is insufficient as a means of funding for such facilities, in and of itself.

Similar in many ways to the TIGER program is the Projects of National and Regional Significance (PNRS) program authorized by Congress in the Moving Ahead for Progress in the 21st Century Act (MAP-21). This program provides competitive grant funding for high-cost

surface transportation projects that provide significant national and regional economic benefits and increase global competitiveness. MAP-21 authorized \$500 million for the PNRs program from the General Fund for fiscal year 2013. As such, the PNRs program is subject to annual appropriations and has not yet received funding.

Transportation Infrastructure Finance and Innovation Act (TIFIA) program

Another tool that project sponsors have in funding large-scale infrastructure projects is the Transportation Infrastructure Finance and Innovation Act (TIFIA) program, which is capitalized at \$1 billion in fiscal year 2014. The TIFIA program provides federal credit assistance to project sponsors through low interest-rate loans. Through participation in the TIFIA program, federal funds can be leveraged to provide greater purchasing power for large transportation facilities.

Surface Transportation Commissions

In 2005, Congress passed the Safe, Accountable, Flexible, and Efficient Transportation Equity Act—A Legacy for Users (SAFETEA-LU; P.L. 109-59). Recognizing the importance of reliable funding for public infrastructure, Congress included provisions in SAFETEA-LU to create two commissions to study the issue of transportation infrastructure financing and revenue generation.

These two commissions—the National Surface Transportation Infrastructure Financing Commission and the National Surface Transportation Policy and Revenue Study Commission—made numerous findings, including policies that apply specifically to freight transportation projects. Both called for significant increases in transportation infrastructure investment from both the public and private sectors, and explored a variety of means to generate this additional revenue. Some of the new revenue ideas studied by these commissions, and others, had freight specific elements, including a transportation surcharge to existing customs duties, a freight waybill tax, a vehicle-miles-traveled tax that includes weight and load considerations, a container fee, increases to the Harbor Maintenance Tax, increases to the fuel tax, a national trade gateway corridor fee, and a maritime goods movement user fee.

State Transportation Funding Packages

Many states are also faced with inadequate funding to address their transportation needs. As a result, some states have recently passed measures to increase state revenue for transportation projects.

One such state was Virginia. In May 2013, Virginia Governor Bob McDonnell signed a statewide transportation funding plan that he had worked with the state legislature to develop. The proposal, HB 2313, “Virginia’s Road to the Future,” raises revenue through a variety of sources including: eliminating the excise taxes on gasoline and diesel and replacing them with sales taxes on gasoline and diesel; increasing the state sales tax; and imposing a fee on

alternative fuel vehicles. The plan is expected to provide approximately \$6 billion in additional transportation funding (more than \$3.4 billion in additional statewide transportation funding, more than \$1.5 billion in additional funding for Northern Virginia, and more than \$1 billion in additional funding for Hampton Roads) over the next five years.

Public Private Partnerships

In addition to the public grant funding, individual states have begun using public-private partnerships (PPPs) to stretch governmental contributions to large freight transportation projects. A recent PPP at the Port of Baltimore provides a prime example of a freight transportation facility that was brought online as a result of cooperative planning and development between private industry and governmental entities.

In January 2010, the Maryland Port Administration and a private port operator entered a 50-year lease and concession agreement for the Seagirt Marine Terminal at the Port of Baltimore. Under the agreement, the port operator is responsible for daily operations and the construction of a new 50-foot berth, including four ship-to-shore cranes. The port operator will also make hundreds of millions of dollars of capital improvements to the terminal. After making an annual payment to the Maryland Port Authority, the port operator will receive the net revenues from the business developed by the expanded terminal facility.

WITNESS LIST

The Honorable Sean T. Connaughton
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Virginia Department of Transportation

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Deputy Secretary
Maryland Department of Transportation

Robert D. Atkinson
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FUNDING THE NATION'S FREIGHT SYSTEM

THURSDAY, OCTOBER 10, 2013

HOUSE OF REPRESENTATIVES,
PANEL ON 21ST-CENTURY FREIGHT TRANSPORTATION,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The panel met, pursuant to call, at 1:00 p.m., in Room 2167, Rayburn House Office Building, Hon. John J. Duncan, Jr. (Chairman of the panel) presiding.

Mr. DUNCAN. I want to go ahead and call this hearing to order because we may have some votes here in just a few minutes.

And, first of all, I want to welcome everyone to this hearing of the Transportation and Infrastructure Committee's Panel on 21st-Century Freight Transportation.

And, as I mentioned, it looks like we may have votes anywhere from 1:40 to 2:10 this afternoon. So, with that, I want to recognize Ranking Member Nadler for a unanimous-consent request.

Mr. NADLER. Thank you, Mr. Chairman.

Mr. Chairman, I request unanimous consent that the chairman be permitted to declare a recess during today's hearing.

Mr. DUNCAN. All right. Hearing there are no objections, that will be so ordered.

This special panel was created by Chairman Shuster and Ranking Member Rahall of the Transportation and Infrastructure Committee to examine the current state of freight transportation in the United States and how to improve that transportation so we can strengthen our economy.

Under the House and committee rules, this panel exists for 6 months. We held our first hearing on April 24th, so we have less than 2 weeks left before we must conclude our activities.

In the 6 months that we have been together, the panel has held six hearings, participated in three roundtable discussions, and traveled to southern California, the Memphis region, and the New York City region. We have met with numerous members of the freight community and discussed many different aspects of the Nation's freight transportation network and how it impacts each of us in our everyday lives.

The panel is working on drafting a report that will provide recommendations to the committee on ways to modernize the freight network and make the United States competitive in the 21st century. We have been working very hard toward this goal, and we plan to issue our report to the committee in the next couple of weeks.

Our discussion this afternoon is the last public hearing the panel will have, and we have saved a very important topic for our final hearing. Today, the panel will receive testimony on ways to raise new revenue and how to use existing revenue more wisely in the funding of freight infrastructure projects.

There are many sources of funding for freight projects. Federal trust funds, State and local revenue, and private investment combine to deliver projects that facilitate the movement of freight around the United States.

A safe, efficient, and reliable intermodal freight transportation network is critical to the Nation's long-term economic health and competitiveness. Unfortunately, a congressionally established commission found that, over the last several decades, investment in the Nation's freight network has not kept pace with the needs of our economy.

Our purpose today is to hear from our expert panel of witnesses on this topic so that we can make better decisions in the future regarding how to invest in freight transportation infrastructure. There are many different proposals, and all of them have strengths and weaknesses. We will hear from our witnesses and carefully weigh what they have to tell us.

We have an excellent panel of witnesses before us today. And it is a good timing for them to be here right at this key point in the activities of this panel. I am confident that they will be able to help us understand the different proposals regarding new sources of funding for freight projects as well as ways to better use the funds already available to us.

We have the Honorable Sean Connaughton, who is secretary of the Virginia Department of Transportation; Mr. Leif Dormsjo, who is the deputy secretary for the Maryland Department of Transportation; Mr. Robert Atkinson, who is president of the Information Technology and Innovation Foundation; an old veteran of this committee, our friend, Jack Schenendorf, former staff director of this committee, who is of counsel for Covington & Burling; and Mr. David Seltzer, who is the principal for Mercator Advisors.

Thank you very much for being here.

And I now will yield and recognize the ranking member, Mr. Nadler.

Mr. NADLER. Thank you, Mr. Chairman. And thank you for holding this important hearing.

As I said at the panel's initial hearing, we believe that the overarching and most important question facing this panel is how best to fund and finance the freight transportation system over the long run. Throughout our hearings, we have consistently heard testimony that, despite the significant growth in use of our infrastructure, we are not making the investments necessary to bring these systems up to date, much less making the investments necessary to accommodate future growth.

If we fail to address this underlying question of how to pay for the Nation's intermodal transportation network, all we will have are lofty visions, stacks of plans, and piles of freight network maps. That will not address the Nation's goods-moving needs or strengthen our economic competitiveness.

SAFETEA-LU established two commissions to frame the choices confronting Congress in developing a 21st-century surface transportation system and to recommend how best to pay for it. In terms of investment levels, both commissions reached very similar conclusions: One, we are significantly underinvesting in all modes of surface transportation; and, two, significant increases in investment from all levels of Government and from the private sector are necessary to meet the future needs of the Nation's surface transportation network.

The policy commission called for an annual investment of between \$225 billion and \$340 billion every year by all levels of Government in the private sector over the next 50 years. The current annual capital investment from all sources in all modes of transportation is \$85 billion—in other words, between a third and a quarter of what is necessary. Unfortunately, Congress ignored these findings and recommendations and authorized 2 years of relatively flat investment levels in MAP-21.

While Congress has avoided making difficult choices to fund transportation investment, many States have not. A number of States have enacted ambitious legislative solutions—lucrative to their infrastructure—to generate additional revenue to meet their transportation infrastructure investment needs. We are pleased to have two of those States, Maryland and Virginia, with us today.

The message we should take from the passage of State transportation revenue packages should not be that the States can take care of the funding gap we face on their own. Yes, the States are doing more, but so must, emphatically, the Federal Government.

Ensuring that the transportation needs of interstate commerce are met is a fundamental role of the Federal Government. The safe and efficient movement of freight through the United States impacts the day-to-day lives of every American and is critical to the long-term economic health and competitiveness of the Nation.

And I would add that, with the possible exception of the current day, all the major political parties in the United States since Albert Gallatin was Secretary of Treasury, since Henry Clay presented his American System, since the Whigs supported the American System, the transcontinental railroad, right up to today, all major American political parties have supported the Federal Government's role in infrastructure. And that must continue.

Mr. Chairman, this panel has the opportunity and the responsibility to provide the Federal leadership necessary to ensure that funding is available to attain a freight transportation network that works for the 21st-century economy. The Transportation Committee has traditionally been the lead advocate in Congress for increased investments in our Nation's infrastructure. If we do not step up to the plate and demand that the necessary investments are made, we will continue to limp along in current funding levels, and the purchasing power of those dollars will continue to decline.

This panel and its forthcoming report provide an ideal opportunity to show that the Transportation and Infrastructure Committee is serious about addressing the needs of the Nation's intermodal transportation network and reducing the growing infrastructure investment deficit. It is my hope that the work of this panel will provide a framework for the committee to use in developing

legislation that include the tools and the resources to meet the future needs of all modes of transportation and develop a 21st-century intermodal transportation network.

Again, Mr. Chairman, thank you for holding this important hearing. I look forward to hearing from the testimony of our witnesses on this matter.

I thank you. I yield back.

Mr. DUNCAN. Thank you very much. Mr. Miller.

Mr. MILLER. I am really interested in hearing the witnesses. You know, freight movement is extremely important in my district. Its critical, competitive nature we need out there. Financing is an issue everybody is dealing with. Especially with the shutdown today, financing is becoming critical.

I am going to be very brief. I have some questions for the panel, but I would like to hear the presentations. I yield back.

Mr. DUNCAN. Thank you very much. Ms. Brown.

Ms. BROWN. I would like to hear the witnesses also, so I yield back on questions.

Mr. DUNCAN. All right. Mr. Hanna.

Mr. HANNA. Nothing, sir.

Mr. DUNCAN. All right. Mr. Sires.

Mr. SIRES. I would like to hear the witnesses.

Mr. DUNCAN. All right.

Mr. NADLER. Only Mr. Hanna didn't say he wanted to hear the witnesses.

Mr. DUNCAN. Mr. Webster.

Mr. WEBSTER. No, thanks.

Mr. DUNCAN. All right. Ms. Hahn.

Ms. HAHN. I would like to hear the witnesses, but I am giving my statement first.

Mr. DUNCAN. Go ahead.

Ms. HAHN. There are 10 microphones, and I have one of them.

Mr. DUNCAN. Yeah.

Ms. HAHN. Chairman Shuster and Ranking Member Rahall both said that when it comes down to finding ways to finance our Nation's transportation system, all options need to be considered. I think this hearing is going to provide a perfect forum to discuss all those options.

In a couple of weeks, our committee is expected to issue a set of recommendations to the full committee on freight policy. One of the most important recommendations we will need is an answer to how we are going to come up with a long-term solution to funding our Nation's transportation system. In fact, it is questionable how effective any other recommendation will be without addressing this issue.

Nowhere is that more evident than the problem in Los Angeles. According to a recent report, nearly 64 percent of our roads in Los Angeles County are listed in poor condition and costing our drivers \$832 a year, well over the national average of \$377. This is frankly appalling, and I believe it is a reason we need to be looking at any and all options to address the continuing funding shortfalls in the Highway Trust Fund.

And as a driver of an electric vehicle who has not been to the gas station in 2 years, I am very interested in exploring another

way so that people like me can pay our fair share by vehicle miles traveled. So I hope we can hear some good information on that proposal.

Thank you very much.

Mr. DUNCAN. Thank you. Mr. Mullin.

Mr. MULLIN. Well, with, you know, respect to my colleague's comment about the electric vehicle, her and I have discussed this, my diesel truck more than pays her way. So I am ready to just hear what the witnesses have to say.

Mr. DUNCAN. All right. Mr. Lipinski, do you have any statement?

Mr. LIPINSKI. Thank you for holding this hearing.

Obviously, everyone knows, we have gone through all these hearings all over the country, and the bottom line is how are we going to pay for this. So I look forward to hearing from the witnesses.

Mr. DUNCAN. All right. Well, thank you very much.

And since this is our final hearing, I will say this: that almost everybody on this committee wanted to serve on this panel, but we wanted to keep this to a smaller size and get people who would be more active in it. And it shows you how active all the Members are when 10 of the 11 members of this panel are here today to hear your testimony. So let's begin.

Our first witness is the secretary of the Virginia Department of Transportation, the Honorable Sean Connaughton.

TESTIMONY OF HON. SEAN T. CONNAUGHTON, SECRETARY OF TRANSPORTATION, COMMONWEALTH OF VIRGINIA; LEIF DORMSJO, DEPUTY SECRETARY, MARYLAND DEPARTMENT OF TRANSPORTATION; ROBERT D. ATKINSON, PRESIDENT AND FOUNDER, INFORMATION TECHNOLOGY AND INNOVATION FOUNDATION; JACK L. SCHENENDORF, OF COUNSEL, COVINGTON & BURLING LLP; AND DAVID SELTZER, PRINCIPAL, MERCATOR ADVISORS LLC

Mr. CONNAUGHTON. Mr. Chairman, members of the committee, thank you very much for having me here today. The opportunity to talk—

Mr. NADLER. Could you use the mic?

Mr. CONNAUGHTON. Is it on? Can you hear it, sir?

Mr. DUNCAN. Maybe pull it closer to you maybe. I don't know.

Mr. CONNAUGHTON. Is it on? Can you hear me now? OK.

Mr. Chairman, members of the committee, thank you very much for having me here today. We appreciate very much the opportunity to talk about freight and freight mobility. This is something that is very important to Virginia, and we are very excited to see in MAP-21 at least the first real discussion of freight and freight planning at a national level.

In Virginia, we can look at freight as a key ingredient of our economy. Just some of the numbers for you to think about is that almost 50 percent of our State's gross domestic product is actually related to freight-related industries. Twenty-eight percent of our GSP and then 34 percent of our employment are tied to industries that use our freight system.

Because of that, Virginia has been a leader when it comes to freight. We have, actually, different funds that we use for our freight system. We actually have three different funds that are

paid for out of dedicated fees and taxes that support our freight rail system. We have one that is for the Class I railroads, another one for the Class III railroads, and another one for rail industrial access.

We also have a specific fund for our port and for supporting capital improvements in and around the Port of Virginia, which is one of the largest ports on the east coast.

And then, finally, we have a very, very vibrant freight mobility program within our State DOT. And what we do there is we have a—we actually were one of the leaders in actually coming out with a State freight plan and trying to match it up with projects in different parts of the State where we have could actually make some improvements on the highway system that also would help move our freight system forward.

One of the challenges that we are facing, like most other States and most of our entire program, is that we are essentially running out of money because we were completely dependent on the gas tax. The gas tax in Virginia had not been raised in almost 26 years. Just due to inflation, we saw almost a 54-percent reduction in the buying value due to inflation.

But then on top of it, what we also started seeing is some of the comments were made before about the introduction of alternative-fuel vehicles, the much higher CAFE standards, and the fact that we were just seeing some changes in our driving patterns in Virginia and our driving habits. What that essentially meant was that we had seen, even though we had more cars registered in the State, more vehicle miles being driven in the State, we actually saw a decrease in the amount of gas tax revenues coming in.

The State decided, through—you know, we did everything, like I say, that we were supposed to do. Been very, very innovative with the moneys we had—all types of public-private partnerships. We established our own infrastructure bank. We did everything that I think most DOTs were encouraged to do with innovation. But even after that, we could show very clearly to our legislature that we needed additional revenues.

We ended up actually putting forward a very, very, I am going to say, different proposal—and that came from our administration, from Governor McDonnell's administration—that we would do away with the gas tax and switch it over to a sales tax. And, essentially, the sales tax, when we looked at what the sales tax reflects, it is much more indicative of economic activity in Virginia and obviously in other parts of the country.

Our House of—essentially, our House of Delegates supported that and actually reported it out. Our Senate did not, and they supported, actually, an increase in the gas tax. What we ended up doing was seeing a compromise where we actually reduced the amount of gas tax, at the same time bumped up the sales tax, and ended up dedicating all of that to transportation.

We ended up having other additional fees and some general revenues that were increasingly dedicated to transportation. We put a \$64 fee on all alternative-fuel vehicles. And, essentially, what this has meant is that we are going to be generating about \$1.5 billion more a year for our transportation program in Virginia, which not only will go to highways but it will go to transit, it will go to pas-

senger rail, our intercity passenger rail. It will also go to our port fund and our rail funds, as well.

So, essentially, what we have been able to do is make our transportation funding program much deeper, much broader, and much more well-founded, to the point that, actually, we have now been put on—because we have a special fund in Virginia, when I sell bonds and go out to the market, like we are shortly, we are actually rated a little bit differently, and we actually have a positive outlook because of the changes we made this year in Virginia.

And, actually, our estimates are tracking right along with what we said they were going to do. And what is interesting about it is we saw again and continue to see a decrease in the amount of revenues coming in from the gas tax.

So, I think in Virginia we understand as a jurisdiction, as a State, that this is very, very important, freight. It is critical to our economic activities and our future. And we very much encourage, obviously, the Federal Government to take much more of a leadership role in this area, particularly because all the improvements that we make in Virginia are for naught if our neighbors to the east and west and to the south don't make the similar types of improvements, as well.

So thank you very much.

Mr. DUNCAN. All right. Thank you. Mr. Dormsjo.

Mr. DORMSJO. Chairman Duncan, Ranking Member Nadler—

Mr. NADLER. Use the mic, please.

Mr. DUNCAN. I don't know why these microphones aren't picking up, but apparently you are going to have to sit very close to the microphones.

Mr. DORMSJO. OK. I hope that helps.

I am here to talk about three issues. I wanted to discuss how the State of Maryland has used public-private partnerships to leverage private investment in infrastructure but freight more specifically. I also wanted to talk about the comprehensive transportation revenue package that the Maryland General Assembly passed earlier this year. It is of a similar scale to the Virginia measure, but we got there in a somewhat different way. Lastly, I also wanted to talk about some successful examples of our State working in partnership with the Federal Government.

First of all, with regard to freight public-private partnerships, in 2009 Governor O'Malley launched an initiative to develop a marine terminal berth in the Port of Baltimore, the Seagirt Marine Terminal, to accommodate larger vessels that will transit the Panama Canal after the expansion project is completed in 2015. To do so, we needed to attract private investment to deepen the berth at our existing terminal and to install the most modern, state-of-the-art cranes to handle the cargo coming in on those larger vessels.

We did not have the resources in our budget to execute that project at the time. We had the designs completed, but they were essentially sitting on a shelf. We were unable to execute that critical project.

We used a 12-month solicitation process to evaluate public-private partnership proposals, and when we got to the end of that process, we successfully contracted with a firm, Ports America Chesapeake, to enter into a 50-year lease and concession agree-

ment where they would be required to make \$250 million in up-front investment and then have the operations and maintenance responsibility for the facility on a go-forward basis.

In addition to shifting those costs to the private sector, the State benefited from a revenue share on the cargo that came in over time, reducing our exposure to the downside risk that the traffic would not show up.

That deal was consummated in 2010. In 2012, the whole project was completed. We had the berth developed, the dredging done, and the cranes installed much faster than the State of Maryland would have been able to do on our own through a traditional procurement.

It was a very significant project because it represented a true partnership between the public and private sectors. Not only was the private sector able to use tax-exempt private activity bonds for this transaction at investment grade, but we were able to bring along our partners in the labor unions, particularly the longshoremen and the crane mechanics represented by AFSCME. They were all stakeholders in this deal to make sure that we had not only the best technology installed at the facility, but also solid labor relations and efficient and harmonious dealings with the staff. So it was truly an example of business, Government, and labor working together.

We anticipate that the investment and the revenues generated from this project will exceed \$1.3 billion over the life of the 50-year contract.

With that success, the State of Maryland ventured into other P3 projects. In 2012, we completed a P3 project to redevelop two travel plazas along Interstate 95. Both the Chesapeake House and Maryland House happen to be two of the busiest rest areas in the entire country, and they had aged significantly in terms of their amenities and were in need of a refresh. We entered into a public-private partnership to redevelop those facilities, and we are halfway completed with that project.

Next year we will be working with the Federal Transit Administration as we go through a solicitation process for a public-private partnership to deliver a \$2.2 billion light-rail project in the suburbs of Washington, DC. That is the Purple Line project.

So we have viewed public-private partnerships as a tool. It is not a way to supplant or replace the need for steady investment from both the State and Federal Governments in transportation, but we do think that for 5 to 15 percent of our capital needs, public-private partnerships are a suitable application.

I want to turn my attention briefly to the Transportation Infrastructure Investment Act, which was passed in Maryland earlier this year.

We, too, understood that we were falling behind with regard to system preservation and transportation investment across many modes in the State of Maryland. The General Assembly acted earlier this year to raise \$4.4 billion over 6 years for the Transportation Trust Fund that we have in the State of Maryland.

We did rely on the gas tax. We did not take the more novel approach that Virginia did. We do believe that there is a linkage be-

tween gasoline consumption and the utilization of the transportation system.

There were three components of our bill. The first was a CPI adjustment to the existing gas tax. The second component was the gradual introduction of the sales tax to gasoline purchases. And the third component was tying inflation increases to our transit fare policy. And so, between those three measures, we were able to bring in \$4.4 billion of new investment.

The last thing I wanted to mention is that we have had some successful partnerships with the Federal Government through the TIGER program. If there were followup questions on that specific project, I would be happy to answer those.

Mr. DUNCAN. All right. Thank you very much. Mr. Atkinson.

Mr. ATKINSON. Thank you, Chairman Duncan and Ranking Member Nadler and other members of the committee. It is a pleasure to be here today.

I am president of ITIF, a think tank, but I served as the chair of the National Surface Transportation Infrastructure Finance Commission, one of the two commissions that was created under SAFETEA-LU. We focused principally on surface transportation, so that is what my comments today will be on. And I will stress that they are my comments, not necessarily the Commission's comments.

I think one of the key factors to recognize is, because truck freight shares so much of the same network with passenger vehicles, that improving freight transportation on the roads essentially means improving the entire system, not just the truck system. And, currently, the performance and conditions of highway system in the U.S. are certainly substandard.

There are certainly specific improvements that could be made that would target truck travel. These could include the establishment of truck-only toll lanes, a stronger focus on expanding last-mile investments around ports, and relieving freight bottlenecks. I would add that if we want to move toward a truck toll lane system, which the Commission supported, that is going to require Congress to alleviate some of the restrictions on tolling the existing interstate system.

When it comes to raising revenues—I think that is the key; if we don't raise enough revenues, we are not going to be able to make the investments we need—the Commission really focused on two areas.

One is in raising existing revenues. And with regard to trucks, one of the key recommendations we made was to increase the heavy vehicles use tax. This is a tax that has not been increased since 1983 and essentially now, in inflation-adjusted dollars, is half of what it was 30 years ago. Doubling this would restore the purchasing power to 1983 levels and would raise an additional approximately \$1 billion a year. In addition, we recommended indexing the HVUT and the tire tax, excise tax on tires, to inflation.

In the moderate term, what the Commission strongly recommended was that the country transition to a vehicle miles travelled tax system, not just because of the issue that the Congresswoman raised about nongasoline vehicles, but because having a

VMT system allows a much more efficient system of pricing that is related to costs imposed.

That is a complex endeavor, to be sure, but one of the recommendations that I would make is that for a VMT system, that we start with trucks. Trucks are much easier to do. There are fewer of them than passenger vehicles. The costs per truck, as a share of total costs, is significantly less. And the advantages of doing a truck VMT system would be significant because trucks impose higher costs on the overall system that a VMT system could charge for.

Now, one of the things that you will hear is that there are specific problems with a truck VMT system, and let me just mention what some of those objections are.

One is that a VMT system would essentially be a tax increase. It is important to stress that the VMT system is completely agnostic toward how much money one raises. You could have a VMT system that raises less money, the same amount of money, or more money; it is completely separate. So the notion that this would be used to raise more money from trucks, I think, is not a valid objection.

A second objection that we hear is that this would be double taxation. Trucks already pay money; why would we ask them to pay more? And, again, if we did this the way the Oregon pilot program did, you would rebate existing taxes. So trucks who are in a VMT system would not pay the heavy vehicle use tax, the tire tax, other truck taxes, nor would they pay the diesel tax. You can design systems that easily make it so they don't have to pay double taxes.

A third concern we hear about is privacy. It is a complicated question but, frankly, I think, in some ways quite simple. You can design a VMT system that is 100 percent private, where nobody knows what roads the truck went on, the time of day, any of that. Only the truck knows that, if you will. Just as when you drive in your own car with a Garmin or a TomTom or other type of device, Garmin doesn't know where you are, you know where you are. The satellite just gives you information. So I think it is important to recognize the privacy issue is really a political issue. It is not a real issue, in the sense of you can design systems that are completely anonymous.

Lastly, cost. There have been some claims that such a system would cost a lot of money. There is a study done for the State of New York moving to a truck-only system, and it found that it would cost a little bit more than the gas tax in terms of administrative costs but not significantly more.

Finally, I would say the Commission agreed and argued that we need to have a better and more up-to-date cost-allocation study on how much trucks actually do pay. The last allocation study was more than 12 years old, but what it found was that certain trucks—but, overall, heavy trucks only pay between 85 and 90 percent of the costs they impose on the system, suggesting that the actual payments by trucks should go up. Now, again, the Commission recommended that Congress charge DOT with updating that study and find out if that misallocation is still the case today.

Thank you very much.

Mr. DUNCAN. Thank you very much. Mr. Schenendorf.

Mr. SCHENENDORF. Thank you, Chairman Duncan, Ranking Member Nadler, and other members of the panel, for giving me this opportunity to appear before you today.

This panel has the difficult task of developing recommendations on ways to modernize the national freight system. In today's political climate, this task must seem almost impossible. But I am, nevertheless, optimistic—

Mr. DUNCAN. We are going to have to have you get—I am sorry, I don't know what is happening. But we are going to have to get you a lot closer to the microphone.

Mr. SCHENENDORF. Is that any better?

First, the—but I am optimistic for four reasons.

First, the need for increased investment in our national multimodal freight network is irrefutable. It has been thoroughly documented by commission after commission, study after study, and report after report. And as you saw in your September 24th hearing, the users of the national freight network, the ones who pay the freight bills, are pleading for increased investment.

Second, there has been a long tradition of bipartisan support for promoting the safe and efficient transportation of goods in interstate and international commerce. Since the first days of the Republic, our national leaders from all parties have made Federal investment in our waterways and ports, our railroads, our highways, and our airports a priority. I think the vast majority of Republicans and Democrats in Congress today are looking for something they can agree on, something they can accomplish together. This could be that thing.

Third, the users of the system are not only willing to pay for this increased investing, they are asking to pay more. This is extraordinary in today's political climate. All they ask is that the fees be fair and that the revenues be invested wisely to increase the speed, capacity, and reliability of our multimodal freight network so that they can compete in the global marketplace.

Fourth, increased investment and paying for it through user fees so as to not increase the deficit or debt is critical to any pro-growth economic agenda. Without systemic improvements to the national transportation network, freight transportation will become less efficient and reliable, hampering the ability of American businesses to create private-sector jobs and compete in the global marketplace.

For these reasons, I believe that the vast majority of Members of Congress understand the need to act. This provides a great opportunity for Republicans and Democrats to once again come together and show the American people the two parties can solve problems together.

I would now like to turn to the options for funding and financing the improvements to the national network. My written testimony, including the appendices, discusses a number of options. Suffice it to say that an all-of-the-above approach is needed. Federal, State, and local governments and the private sector need a full toolbox of funding and financing options if we are to close the freight investment gap.

I would urge you to also think outside the box and consider new ideas. One such idea is the proposal set forth in Appendix C, which is a paper written by Elizabeth Bell, an associate at Covington, and

myself. This proposal would employ two targeted user fees—a Federal interstate user fee and a Federal motor carrier user fee—to supplement, not replace, existing Federal transportation revenue sources.

All vehicles using the Interstate Highway System would pay the Federal interstate user fee, which would be collected through an E-ZPass type of system that would be entirely electronic with no toll-booths. Fees would be established on a corridor basis, with the fees on less congested rural portions of the interstate less than the fees on highly congested portions, thereby reflecting the different costs associated with repair and modernization. The fees would be set at the level necessary to pay for the improvements—no higher, no lower.

It would be a pay-as-you-go system—no debt service, no diversion, no demand management fees. All of the revenues generated by the fee would be deposited in a special account in the Highway Trust Fund and would be used exclusively to modernize the Interstate Highway System, the backbone of the national freight network.

The Federal motor carrier user fee would be imposed on commercial trucks' usage of all roads and would be collected through a GPS-type system currently being used by many trucking companies. Importantly, trucks would not be double-charged for miles traveled on the interstate. Rather, those files would be recorded through the Federal interstate user program. All of the revenues generated by this fee would be deposited in another special account in the trust fund and would be used exclusively for freight-related improvements, including intermodal facilities.

The entire national highway network would benefit by this approach. Together, these two user fees would take pressure off the Highway Trust Fund and allow its existing revenues to be used to upgrade the noninterstate highways on the national network.

In conclusion, Mr. Chairman, the national surface transportation network is a crucial and dangerously neglected driver of our economy. As a country, we cannot avoid making the choice to address this problem, and inaction is the wrong choice. We must act now.

Mr. DUNCAN. Thank you very much, Mr. Schenendorf. Mr. Seltzer.

Mr. SELTZER. Thank you, Mr. Chairman. And I'd like to thank the panel for inviting me to testify this afternoon.

You have heard expert testimony today from several of the witnesses concerning Federal policy toward funding issues. I would like to briefly survey Federal policy regarding financing tools, both those currently available and several potential initiatives for the panel's consideration.

Federal policymakers have four broad policy tools to stimulate infrastructure investment: grants, regulatory streamlining, credit assistance, and Tax Code incentives.

Grant funding, as we are all acutely aware, is severely constrained by fiscal limitations. Regulatory reforms have little, if any, fiscal impact but may not provide a deep enough subsidy to advance major projects.

The last two Federal policy categories, credit assistance and Tax Code incentives, appear more promising today because they, (A) en-

courage project sponsors to identify new revenue streams to support financing; (B) bring the market discipline of private co-investment, which can improve project selection; and, (C) avoid the high-scored budgetary cost associated with traditional grants.

There are four existing Federal financing tools applicable to freight projects.

First, private activity bonds, or PABs. To date, a total of \$8.2 billion of the \$15 billion national volume cap for highway and intermodal freight PABs have been issued or allocated. Of the 17 projects selected by USDOT, 4 are specifically for intermodal freight projects, all part of CenterPoint Intermodal's Midwest real estate portfolio.

Second, TIFIA. Since inception, USDOT has made a total of \$11.8 billion in loans for 36 projects. Two of the loans, totalling \$390 million, 3 percent of the total, are for freight-only or predominantly freight projects—Reno Transportation Rail Access Corridor and Port of Miami Tunnel.

Third, the RRIF program. As of September 30th, FRA reports making 33 direct loans, totalling \$1.7 billion. Approximately half of the dollar volume was for 27 different freight rail projects, the balance for passenger rail.

Finally, State infrastructure banks, or SIBs. These, as you know, are loan-revolving funds seeded with Federal grants and State matching funds. Most of the loans have been for highway projects. To date, only Colorado and Pennsylvania have set up Federal loan accounts for freight rail, with relatively small loan activity.

Now, looking toward the future, while TIFIA and RRIF have played a useful role, many observers believe that Federal credit assistance could be provided more effectively if there were a stronger institutional platform, such as an independent Government corporation. It could have an independent board of directors and an expert staff drawn from industry, whose sole mission would be to provide and monitor credit assistance to projects of national and regional significance. This national entity could also make loans to SIBs, which, in turn, could re-lend the funds to local freight and other projects.

In addition, the Federal Tax Code could play an expanded role. Unlike Federal credit, tax incentives do not require the Government to assume default risk on loans. And if policymakers wish to provide long-term financing at rates below the Treasury rate—the typical TIFIA and RRIF lending rate, which today is about 3.75 percent—the budgetary cost of doing so should be cheaper using the Tax Code than Federal credit.

Now, the administration earlier this year proposed expanding the PAB volume cap for highway and intermodal projects from \$15 billion to \$19 billion. While that is a step in the right direction, in today's market there is only a minimal savings, about a quarter of 1 percent, between PAB and taxable borrowing rates.

The administration has also proposed an optional taxable bond program with a 28-percent interest subsidy. If that proposal were broadened to also include freight facilities conferring public benefits, this would be more cost-effective than PABs, further reducing borrowing costs for freight projects by a quarter to a half a percent.

An even more effective tool would be establishing a new class of qualified tax credit bonds for surface transportation. These are taxable-rate State and local debt obligations where investors receive an annual tax credit in lieu of cash interest from the borrower. A Federal subsidy of the interest on these long-term bonds is tantamount to a 60- to 70-percent outright grant in terms of the financial benefit to the project.

Two companion bills with bipartisan sponsorship were introduced in June to establish a \$50 billion transportation tax credit bond program, H.R. 2534 and S. 1250, the Transportation and Regional Infrastructure Project, or TRIP, Bonds Act. Either of these bills could serve as a basis for legislation assisting freight.

In conclusion, in an era of constrained Federal resources, a combination of credit and tax incentives can play an important role in advancing major freight investments with a relatively small Federal budgetary impact.

Thank you for the opportunity to appear before you.

Mr. DUNCAN. Well, thank you very much.

As usual, I am going to save my questions until the end and yield to my Members at this time, starting with Mr. Miller.

Mr. MILLER. Thank you, Mr. Chairman.

Mr. Seltzer, I enjoyed your testimony. I am used to hearing a lot about fee increases and taxes and such, and you are being a little more innovative out there. I serve on Financial Services and we hear a lot of that, and we talk about Government involvement in HUD and Export-Import Bank. The difference is Export-Import Bank lends to a diverse sector out there, so there is no risk associated with one sector crash versus another, so they are pretty diverse.

And in your testimony, I would like to focus on the large freight infrastructure projects, independent Government platform you talked about. And if you create and amass capital to finance these projects, who would underwrite these platforms?

Mr. SELTZER. In my testimony, I suggested a Government corporation that could take a portion of the responsibility currently being managed by Department of Transportation under the TIFIA and RRIF programs. So it would basically be the same suite of credit products but through a separate organization whose sole focus would be extending credit assistance.

Mr. MILLER. Now, I recognize the benefit we provide through HUD and we provide through Export-Import Bank. You know, we are concerned about taxpayer risk. But just a question: Why can't the private sector finance these projects now?

I am not opposing what you are saying. I am throwing some questions out that you will be asked.

Mr. SELTZER. Well, in the transportation sector, it is a very small segment of projects of any mode that are fully self-supporting from user charges. Most of them, even the recent toll roads and express lanes, have had some segment of governmental-contributed capital or assistance, whether it is State, local, or Federal dollars, in order to provide the service at a cost-effective charge to the public.

Mr. MILLER. There is always going to be a concern about politics getting involved, that financial decisions might be made in ques-

tionable ways. How would you monitor the progress of this if it did occur?

Mr. SELTZER. That is an excellent question. I think sunlight is the best disinfectant, and if you had a bipartisan board of people from the transportation and finance and construction sectors whose deliberations would be open to public purview, I think that would reduce the likelihood of politically motivated decisions being made.

Mr. MILLER. I introduced a bill to replace Freddie and Fannie. And the biggest concern there and I have here is: How do you establish the necessary capital reserves to protect the taxpayers from losses?

Mr. SELTZER. Another valid point. So Freddie Mac and Fannie Mae were GSEs, Government-sponsored enterprises, that had private shareholders. And part of the——

Mr. MILLER. Which never worked. They made the profits, and the Government and taxpayers took the risk.

Mr. SELTZER. Right. So the concept here would be a Government corporation, like the Export-Import Bank or Overseas Private Investment Corp., that I think most observers feel have been operated prudently, but there is no private shareholder——

Mr. MILLER. So you are going to have internal underwriting done by the facility agency, whatever you want to call it, so you are keeping Government and other entities out. You are underwriting these projects based on the merit of the project. Is that how it is to be done?

Mr. SELTZER. Yes, sir.

Mr. MILLER. OK.

You also state in your testimony the regulatory reforms. And I did the first one in 2005 that said, if you meet NEPA standards, you don't have to go through your, you know, State twice and do both. There are adverse financial impacts if you don't do that, if you don't streamline it, and that can be very helpful to streamlining projects if you do it improperly.

Then you go on to mention the usefulness of streamlining to permit an environmental review process. Beyond permit an environmental review process, are there additional ways we can reduce regulatory burdens?

Mr. SELTZER. I am sure there are. And I would like to invite my colleagues, particularly the two State DOT——

Mr. MILLER. Well, that is my question. How can Congress help you?

Mr. SELTZER. Well, I think on the environmental side, we have seen the benefit of that with the expedited treatment in terms of the NEPA process.

In my own view, that is a necessary but not sufficient condition to bring projects to financial feasibility. They still, in many cases, need some other form of governmental assistance.

Mr. MILLER. OK. The question we need to ask, if you are looking for that, is, what obstacles do you foresee in attempting to achieve regulatory reform in regards to freight?

Mr. SELTZER. As a consultant, I think I would answer with the standard phrase: Clearly, that is a subject worthy of further study.

Mr. MILLER. God bless you. Thank you.

I yield back.

Mr. DUNCAN. Thank you.

Mr. Nadler?

Mr. NADLER. Thank you.

Mr. CONNAUGHTON and Mr. Dormsjo, can you address your States' freight investment needs under the current highway formula program, even with the higher share, or will you still have unmet needs?

Mr. CONNAUGHTON. Mr. Nadler, in Virginia, we receive around \$900 million per year from our highway allocations and our transit allocations. That is becoming a smaller and smaller portion of our overall program. Just a few years ago, it might have been one-fifth. In the next 5 years, it will be down to one-seventh of the amount of money we get for transportation.

Mr. NADLER. So you still have unmet needs.

Mr. CONNAUGHTON. Yes, sir. In fact, and we are—and we took, obviously, these steps this year. However, when you look at—Virginia is—and I am going to say a positive thing—we are continuing to grow, the economy is still strong, population growth—

Mr. NADLER. You are still going to need it.

Mr. CONNAUGHTON [continuing]. But we still have needs.

Mr. NADLER. Thank you.

Mr. Dormsjo, same answer?

Mr. DORMSJO. Essentially, yes. I don't think the proportions that Secretary Connaughton mentioned match up exactly with Maryland, but—

Mr. NADLER. OK.

Mr. DORMSJO [continuing]. The answer is yes.

Mr. NADLER. Given the significant backlog of maintenance and reconstruction needs facing States, given what you just said, it is clear we need additional resources.

We also need a different way to fund these projects, because freight investments, particularly large-scale, multijurisdictional projects do not fare well in a flat-funded, State-based formula plan.

Mr. Connaughton, do you agree with this assessment? And do you agree that there is a need for a strong Federal role and dedicated revenue stream to advance intermodal freight projects, particularly multi-State?

Mr. CONNAUGHTON. Yes, sir, very much so.

In fact, just to give you an example for us is the I-81 corridor that runs through Virginia. We are the largest portion of I-81. It is almost 325 miles. And it is the highest percentage of trucks in any road in Virginia. The challenge we have is it is very expensive. We are taking bits and pieces and expanding it. But if you think about it, we get to Maryland and West Virginia, which only have between, I think, the two of them, only about 25 miles' worth of that road.

So we can spend all this money; yet, however, if our sister States don't end up spending as much money, we are very low priority for them. I mean, this is the challenge, and this is really where we need Federal leadership, when looking at what happens in other States. When you make these investments in specific States, what happens in the next State down?

Mr. NADLER. Mr. Dormsjo, same question.

Mr. DORMSJO. Yes. I would say that one of the most compelling arguments that we articulated during the legislative session in Annapolis when we were talking about the need for increased investment and infrastructure was the ability to make sure that we had adequate matching dollars for Federal funds across many modes. That really captured the attention of our legislature. The prospect that we would not have adequate local dollars to match against the Federal programs was something that had great resonance.

Mr. NADLER. Thank you.

Mr. Schenendorf and Mr. Atkinson, both commissions on which you served called for increasing and indexing the gas tax and existing truck-related user fees as part of their recommendations for addressing the near-term investment gap. We have heard criticisms of this recommendation since many believe the gas tax is antiquated and inefficient.

Can you explain the Commissions' rationale for continuing to rely on the gas tax in the near term? And how long do you feel the gas tax will remain a viable revenue source to finance surface transportation investments?

Let me give it all to you at the same time.

And can you discuss some of the other revenue options available to Congress to generate revenue for freight-related transportation projects? And did your commissions evaluate the importance of maintaining or strengthening the user linkage to the revenue source?

So, what is the rationale for continuing to rely on the gas tax in the near term? How long will the gas tax remain viable? What other revenue options do we have available?

Mr. ATKINSON. I could start.

The reason we, the Commission—first of all, I should add, by the way, our commission was really—was a wonderful experience, in many ways, because it was a very diverse group of individuals, diverse from political affiliation, diverse from across the country.

And when we started the Commission, as a broad generalization, we had a, shall we say, a concern among Republican members of the Commission with increasing gas taxes and a concern among Democratic members among moving to PPPs and tolling and public-private partnerships. By the end of our deliberations over 18 months, we all agreed that we needed more revenue from the gas tax and we needed more tolling, we needed more PPPs. So we were able to come to a consensus.

The reason we argued for the gas tax so strongly in the short and medium term is we believe that the system is best funded by user fees. Using other kinds of fees to fund the system lead to inefficient behavior. That is the principal reason.

Mr. DUNCAN. Let me apologize to all the witnesses. We have had votes going on for about 8 or 9 minutes now, so we are going to have to stop and take a couple of votes. And then we will start the questioning at the conclusion of those votes. I apologize, but we will be in recess.

Thank you.

[Recess.]

Mr. DUNCAN. All right. We are going to come back into session now, and I am going to have Mr. Nadler repeat his question to some extent, and, Mr. Atkinson, you can answer.

Mr. NADLER. Thank you. I was asking Mr. Schenendorf and Mr. Atkinson can you explain the Commission's, referring to the Commission that you all served on, rationale for continuing to rely on the gas tax in the near term, how long do you feel the gas tax will remain a viable revenue source for surface transportation, and can you discuss some of the revenue options available to Congress for freight-related transportation projects? For Mr. Atkinson and Mr. Schenendorf, or Mr. Schenendorf and Mr. Atkinson, whichever way you want.

Mr. ATKINSON. Well, thank you.

I think I talked a little bit about the tax gas. One of the key reasons we endorsed the gas tax, or other types of programs like a VMT, is we believe that users should pay the full cost of their—the costs they impose on the system, and cross-subsidies through other means just leads to inefficiency. If users have to pay what they are imposing, they will use the system most efficiently.

In terms of your question how long will the gas tax last as a viable source, it will last a long, long time. It is just really a question of what the rate is. We are a long way away from moving to a fleet that is not powered by gasoline, at a minimum, I would argue, 20 years away. That is not to say we shouldn't plan now and move to a VMT. I think we should move to a VMT immediately on trucks because of all the benefits. But the gas tax is a long-term sustainable revenue source.

We did review a lot of other revenue sources in our report, which I would encourage you to look at if you haven't. As I mentioned, there are vehicle fees for trucks, there are custom fees, there are container fees. There are a whole range of fees that we can look at. Our whole focus was on aligning those fees as closely as possible to what the users should pay.

Mr. SCHENENDORF. Mr. Nadler, we came to very, very similar conclusions actually as the other commission. We started off by projecting out economic growth and population growth out for a number of years from the time we started the study, and basically what that showed is that you needed to make a very, very significant investment in the overall national system in order to, one, preserve what we have and rebuild the interstate system, which is 50 or 60 years old now, and also to provide the additional capacity that is needed. And of all the revenue options that we looked at, the only ones that generated in the short term the revenue that was needed if you applied the user fee principle, which we strongly believed in, was the gas tax. That was the only way to generate the money.

Mr. NADLER. And not the VMT tax?

Mr. SCHENENDORF. The VMT tax would generate it, but in order to have the VMT tax—and we endorsed the VMT, a shift to the VMT tax, but that is going to take a period of time in order to implement that. I think Rob is right that you could do it more quickly on the trucking side of it. But to actually implement that as a replacement for the gas tax is at least, in my judgment, 10 to 15 years from now before you would be ready for that, if then. And

therefore in this interim period, you have to find some alternative, and the gas tax is actually a very, very good surrogate for a user fee during that period.

Now, I was asked a question. The paper that we read was basically if you couldn't raise the gas tax, and you couldn't get to the VMT quickly enough, what could you do in the interim, and that is where using the E-ZPass-type system, which the public accepts on the interstate to generate the funds for the interstate, combined with the truck user tax, which could be implemented more quickly, is something that could be put in place fairly quickly. Not a year or two; it would probably take 3 or 4 years to get that completely up and running, but that could be done in order to generate the additional revenues that you need.

Again, I would encourage you, we looked at a number of options, too, and we had a color chart, which is in appendix B of my testimony, which basically lays out those options and then kind of analyzes them across a number of criteria.

Mr. NADLER. Thank you. My time is way expired. I yield back.

Mr. DUNCAN. Thank you very much.

Mr. Webster.

Mr. WEBSTER. Thank you, Mr. Chairman. I can't remember exactly who said this, but I think it was one of the two DOT Secretaries. Who raised \$1.5 billion?

Mr. CONNAUGHTON. Virginia, sir.

Mr. WEBSTER. Virginia. OK. Is that a 1-year immediate raise in \$1.5 billion, or is it over a period of time?

Mr. CONNAUGHTON. That is per year.

Mr. WEBSTER. Per year. And you did a tax swap?

Mr. CONNAUGHTON. What we essentially did was we originally proposed to do away with the gas tax and switch over completely to a sales tax, essentially make it revenue neutral the first year, but because the sales tax grows, it would bring much more money in. The compromise at the end of the day was a diversion of some general revenues over a swap out, lowering the gas tax by almost 7 cents a gallon and then upping the statewide sales tax by 0.3 percent.

Mr. WEBSTER. Was that part revenue neutral?

Mr. CONNAUGHTON. No, sir. But by the time—quite honestly, it was started that way, but—

Mr. WEBSTER. So initially it was revenue neutral, and then it grows.

Mr. CONNAUGHTON. That is right. But because of the way it has now been set up, this year it will generate close to \$1 billion more, and then it moves up within 2 or 3 years, when all of it is phased in, \$1.5 billion a year.

Mr. WEBSTER. Do either of you have an infrastructure trust fund or kind of an infrastructure bank of some sort?

Mr. CONNAUGHTON. We do, sir. We have a Federal one, but we have a pure State one with only State money that we use to fund projects.

Mr. DORMSJO. Maryland does not.

Mr. WEBSTER. How do you fund the SIB?

Mr. CONNAUGHTON. We have moved—we are entitled to a certain percentage of the State's revenue surplus every year, and we have

been running surpluses, so we have transferred about \$400 million into our bank, and we have used it for various projects where we have lent money to a bridge project, we lent money to a road project, another road project. We have something for our port. We lend at very low interest rates just so it becomes a foundation loan to help the overall project move forward.

Mr. WEBSTER. So all of the projects that would qualify would be revenue-producing?

Mr. CONNAUGHTON. Yes, or the sponsor, such as a locality, or in one case it is actually a development that actually is in a key location that they are going to have to build this road anyway, and they proffered to do it, but we were able to move it up faster and actually provide transportation relief now. They are paying these proffers, the development proffers, back as essentially for the debt service on the loan.

Mr. WEBSTER. OK. Then when you did the tax swap, you were only trading gas tax and sales tax, but I think you said you added in some general revenue?

Mr. CONNAUGHTON. Yes, sir. We actually took a small—there was a fight. Our senate and our house, one wanted new revenue, one wanted diversion from existing revenues. They ended up doing a little bit of additional revenues and a little bit of additional general fund revenues being dedicated, as well as an alternative fuel vehicle tax, as well as an increase, a slight increase, in our motor vehicle sales tax, which is a separate tax from the sales tax.

Mr. WEBSTER. And in Maryland you raised money also, additional revenue. Didn't you say you did that?

Mr. DORMSJO. Yes. The gross majority of the revenue was from new taxes, but there was some additional bonding capacity that came from our general operations. That was a small part of it.

Mr. WEBSTER. Was it sales tax, or was it a gas tax?

Mr. DORMSJO. It was a combination of an incremental increase on the existing gas tax, the volume-based tax, and then the gradual application of the sales tax to gasoline, not a broad sales tax increase.

Mr. WEBSTER. I had one other question about the tolling of the interstate with an E-ZPass. Was that based on level of service, or is it based on just a per-axle cost? So in some cases where you do revenue, you know, based on the flow of traffic, so you are paying for a service, or was that for axle, just a per-axle charge?

Mr. SCHENENDORF. First of all, it could be designed in different ways. I believe that we concluded that it would probably be a different charge for trucks than it would be for automobiles. But it was basically the service level. In other words, corridors that were—didn't have a great deal of traffic, didn't go through urban areas, didn't have big congestion problems, those corridors would pay a lower fee than the I-95-type corridors, which have very heavy congestion, those segments wearing out, that the cost to modernize that corridor would be much greater, and so people traveling in that corridor should pay a little higher fee. So we thought of it mostly in terms of service for the corridors.

Mr. WEBSTER. Thank you very much.

Mr. DUNCAN. Thank you very much.

Ms. Hahn.

Ms. HAHN. Thank you, Mr. Chairman.

So as I said in my opening statement, one of the options I am interested in exploring is the VMT. Mr. Atkinson, you talked the most about it, but I don't know some of the other members of the panel had any comment. I know Oregon has been vetting this for, I think, 10 years, and they are going to roll it out in a pilot program in 2015.

Have you looked at what they have studied, what they have learned? And what are the—I know you were talking about it only in terms of trucks, but I am interested, of course, and as we said, we are encouraging more people to drive alternative-fuel vehicles, electric vehicles, vehicles that get a lot more mileage per mile.

So what are the downsides; what are the upsides; is this something we ought to look at at a Federal level?

Mr. Atkinson, you can answer, but if some of the others have any comment on what you think the VMT—what are the upsides, what are the problems that you think we would encounter?

Mr. SCHENENDORF. Well, just as a comment to what Rob had said, our commission came to the same conclusion, that we definitely in the long term need to find a replacement for the gas tax; that VMT types of proposals seem to make the most sense, but it is going to take time to get there. There are a number of obstacles that have to be overcome, and some of them political, some of them technical, some of them just getting the entire fleet to be ready to shift to that kind of approach that was going to take time.

You know, I still think that you are talking 10, 15 years from now before you could really, on a nationwide basis, move to that kind of an approach. We recommended that basically you do it as quickly as possible; that you do the research, you do the pilot studies, like Oregon, and you do whatever else you need to do to be able—

Ms. HAHN. Do we have to do it again, or can we look at what Oregon is doing and learn from them?

Mr. SCHENENDORF. Oh, we will learn from what Oregon is doing, but I think is going to take more and different kinds of approaches to eventually get us to the point where something is ready for nationwide implementation.

Mr. ATKINSON. Just quickly, there is a study that DOT funded, I think at the University of Iowa, that looked more in depth, and I would encourage you to look at what the results of that study have been.

I actually think we can get to a VMT in a certain number of years, but each year we wait is another year we won't get to it. So it is just really a question of beginning that process. That is one of the reasons why going to a truck VMT first is a good approach, because the system you will build for that will be a system that can scale up and then be used for the passenger VMT system.

Part of what has to happen ultimately is that original equipment manufacturers of cars and trucks will need to be installing essentially these on-board units as part of the original equipment, and that takes a while for the fleet to be able to do that.

Ms. HAHN. Why can't we just use the odometer?

Mr. ATKINSON. You certainly could. But what our commission argued is that the biggest benefit from the VMT is actually not rais-

ing the money, it is being able to price roads more accurately. So, for example, lots and lots of places would like to move to congestion pricing as a way to manage congestion in peak hours. It is very, very hard to do that without a VMT. If you had a VMT, you can just easily do congestion pricing by just pricing the lookup table that says between 7 a.m. and 9 a.m., you have to pay this for the road.

The second thing about that is for trucks you can easily install axle weight sensors so that each truck has a weight sensor, and then you price according to the road you are on, can it handle heavy weights. You price according to the weight of the truck.

In Germany they found after implementing their heavy vehicle toll system, VMT system, that they reduced empty truck travel by about 10 percent because trucks were now being more efficient. So I think that is the main reason is you can just get much more efficiency.

Ms. HAHN. Thank you.

So, Mr. Dormsjo, how do I—I have heard everybody say it, and I wasn't sure how to pronounce it.

Mr. DORMSJO. Dormsjo.

Ms. HAHN. OK. We were close.

So I was very interested in the Port of Baltimore and the project, the public-private partnership project that you—I couldn't see in the testimony exactly how much that one terminal initially cost.

Mr. DORMSJO. It was about \$110 million, and then there were \$140 million of related highway improvements.

Ms. HAHN. Were you able to use any of your Harbor Maintenance Tax dollars for that project?

Mr. DORMSJO. No.

Ms. HAHN. Yeah. That was all I was thinking about, listening to you was I love public-private partnerships. I think that is great. I was curious of the \$15-per-container fee that you added on, it sounded like, to help pay for this project and wondering how the shippers are feeling about getting doubly taxed.

I think the Port of Baltimore gets about \$40 million—or collects \$40 million annually in the Harbor Maintenance Tax, and yet it comes back to Washington, DC, and sits in a fund that we now have about a \$9 billion surplus. So I have been advocating that we use the Harbor Maintenance Tax to fund our infrastructures at our ports so that all of our ports can be dredged and ready to accept the big ships that come in, or just to keep their main channels open and running. Many ports suffer from a constant need for dredging.

So it is one thing to talk about new taxes and new fees. It is another thing to talk about how we should use the tax that we are already collecting for the purpose for which it was collected. So I would like hear from some of you, I know my time is out, on how important you think it is that we actually use the money that you are collecting for the purpose at your ports for which it was collected. That was a loaded question.

Mr. DORMSJO. Sure. Let me just try to unpack that a little bit. I totally agree that the needs in the harbor dredging space are being unmet, and that there is a deficit in terms of what we need to do across the country to keep the channels open. I do think that once those needs are met, there is a logic to making sure that there

is flexibility for sponsors and port authorities to make land-side investments. I think that that is a good idea.

With this particular case, there was no public investment in the project, it was completely privately funded and financed, so we didn't put in State dollars or Federal dollars or local dollars. It was an investment from the private sector because there was a revenue-generation component.

The \$15 per container is not a fee. It is actually a revenue share back from the private equity firm to the State of Maryland. There will be no additional costs on the shipping side of things. We thought that the benefit of that \$15 revenue share was that over the long term, that would keep the private sector and the public sector aligned, focused on trying to grow volume, and that \$15 per container revenue share is only triggered if we get to a certain level. So that was an incentive for us to stay working closely with the private sector at the terminal itself.

Ms. HAHN. But you would be in favor of getting more of your Harbor Maintenance Tax dollars back.

Mr. DORMSJO. Oh, yes.

Mr. DUNCAN. Thank you very much.

Mr. Mullin.

Mr. MULLIN. I was just glad she was done. Sorry.

Ms. Hahn, you know we get along great.

I tell you, thank you for being here today. Obviously we want to continue our economic growth, and the only way we do that is being able to move our products from A to B. And we have an infrastructure that we have abused, and we have to find a revenue source for it.

One thing we can all agree on this panel, regardless of what letter is in front of our name, we know the need of this country and the responsibilities of this country falls upon the Transportation and Infrastructure Committee, and we have to find revenue for it. And even though it is uncomfortable sometimes to talk about in a situation like this, in order to move forward on any business, you have to invest in it. In this country we have to invest, and not just abuse. And I appreciate the States that have took the initiative to do it.

In Oklahoma we are doing the same, but we still have a larger network of waterways, of rail, and of roads that it takes for the States to be able to get the products there.

I think, Mr. Atkinson, did you bring up the sales tax—tax on diesel?

Mr. ATKINSON. Yes, sir.

Mr. MULLIN. I have a question about that. I drive a diesel. I also have a farm that we use a lot of diesel on. At the same time I also have diesel trucks, semis on the road. And I understand the idea of maybe adding 10 cents for diesel tax, but ultimately when I am hauling a product from A to B, I get actually to pass that cost on. But there is a whole other area of individuals that drive diesels, like myself, that there is no way for us to add that cost on.

Is there any way to separate those two, or would everybody that drives a diesel vehicle just have to be paying that price?

Mr. ATKINSON. So we looked at that on the Commission. I am going to forget—

Mr. MULLIN. Pull that mic to you, I am sorry.

Mr. ATKINSON. We looked at this on our commission, and Jack may know the answers, but there is a provision, I believe, in the current system where farmers, for example, who are buying diesel—

Mr. MULLIN. No, the farmers are different. I had that, red diesel and green diesel.

Mr. ATKINSON. They don't have to pay.

Mr. MULLIN. There is two separate. But when I pull up to a diesel pump, which I do literally just about every other day, I am pulling up to the same pumps the semis are filling up at.

Mr. ATKINSON. Got it.

So as I said in my written testimony, if we are going to raise taxes on trucks, heavy trucks, and we don't dedicate all of it to truck projects, then we should also increase taxes at a commensurate level for passenger vehicles, whether they are light-duty trucks like you might drive or just a regular gas-using passenger vehicle.

So I agree with your point. If we were to raise the diesel tax, I would argue we should also raise the gasoline tax so that it is equal.

Mr. MULLIN. But at the same time it doesn't—Ms. Hahn, what she said in her opening statement about her driving an electric vehicle or the natural gas vehicles. So what I am afraid of is we just put a diesel tax out there, we are just putting a Band-Aid on a larger issue, and what this panel needs to do, and that is what we are discussing, is an idea of how to fix it, not just patch it.

Go ahead, sir.

Mr. CONNAUGHTON. Yes, sir. We in Virginia, when we changed our gas tax, we actually for the first time split out gas and diesel. So we lowered the gas tax, but we actually went to a percentage, 6 percent on the diesel, which is about 21, 22 cents per gallon. So it went up. The thing is that for those passengers, people who are driving diesel vehicles, like yourself, all you have to do is actually declare it on your income tax returns, and we will pay you back as if you were paying—

Mr. MULLIN. Did you see a drop in your State of sales of diesel vehicles? I mean, I would imagine there are a lot of manufacturers out there—let us just talk about fuel efficiency. Diesel, small diesel motors, your little four cylinders, they have done so much with these that they can actually get better gas mileage than you have in gas vehicles.

So over in Europe there is a lot of diesel vehicles, and in a lot of other countries there are a lot of diesel vehicles, but are we going to shoot ourselves in the foot, because if the idea is to get efficiency levels up, which this administration is trying to do, if we add so much tax to just the diesel, the manufacturers will be—there won't be a big incentive to buy those.

Mr. CONNAUGHTON. We worked with some of the manufacturers about this issue. Because this mechanism already exists in our State revenue collections—you mentioned before about the different types of diesel and the farm use, nonfarm use. We already had a mechanism in place if a farmer purchased nonfarm diesel out in

the street, they could go in and actually get a tax return. They would get paid back.

We are using that same mechanism for passenger vehicles. The manufacturers seem to be OK with that. So we right now have not seen a change in diesel purchases out there, because there is a mechanism. For every year, they can actually just come in, put it on their tax return, show the receipts, and we will pay them back.

Mr. MULLIN. Right. And I won't ask the question, I just want to lay it out there for Mr. Schenendorf. This toll that we are talking about, I would be curious to know the infrastructure, how much cost that we are going to have to invest in a toll system for each State for the interstates, and who is going to pick up that tab, where it is going to come, and then how long it is going to take to get the funding back for our investment. I know that is a big question that you probably don't have the answer to, but if you could, if you have it, could you get it to my office?

Mr. SCHENENDORF. Surely. I will do that.

Mr. MULLIN. Thank you.

I yield back.

Mr. DUNCAN. Thank you very much.

Mr. Sires.

Mr. SIRES. Thank you, Mr. Chairman. I represent—I am from New Jersey, which is one big transportation hub, and the pressure on the infrastructure is constant. I mean, whether it is getting merchandise from the port—you know, the merchandise that comes through the ports goes through about 80 percent of the region. Only 20 percent goes to the interior of the country. So you can see the constant pressure.

Toll is out of the question, raising the New Jersey Turnpike tolls. It is just too high now. Going to the city now is about \$15.

Raising the sales tax, we are already, I think, at 7 percent. I don't know what it is in Virginia. Much lower. I figured that. We don't want to get to be as high as New York. That is the problem with New Jersey. Sorry, Jerry.

But, you know, we certainly have to come up with something. I don't know exactly what. We have some good ideas, and some of the ideas, you know, raising the gas tax and some of the other things. But what do you think happens to our economy if we can't find a solution to this? And I am not talking about the next 6 months or a year, because I know the pressure on the roads in New Jersey is just constant. I know they are investing a lot of money currently in the turnpike, and that was because the tunnel that was going to New York was canceled, and they are using some of that money. The transportation trust in New Jersey is just about bankrupt. There is no appetite to raise the gas tax.

So, you know, where do we go from here if we don't have this appetite to do some of the difficult things that need to be done in order to keep our infrastructure going?

Mr. SCHENENDORF. I can take a crack at that based on the Commission's work. Again, we projected out population growth and economic growth, and basically our national infrastructure is going to come to gridlock. In the past we have been living off of the fact that the Greatest Generation provided a new interstate system. We really haven't had to pay on the interstate the costs of rehabilita-

tion and reconstruction that are coming due. In addition, the interstate had excess capacity in it, so our economy and population grew, and it was able to absorb that.

Well, we have reached the point where that is no longer the case. And so as we move forward, and we hopefully grow our economy, and we are definitely going to have more population, the road system and the rail systems aren't going to be able to handle it without a significant increase in investment to keep what we have in good shape and to provide the take additional capacity where it is needed. And it is going to cost money. People are going to have to pay for that.

But people are going to have to see the vision that this is what they need, because otherwise they are sitting in traffic, it is getting more and more expensive and less and less reliable for businesses to move things. And that is why the shippers are up here asking you to increase these fees, because we have reached that point where they can see what is right down—it is not a long tunnel, it is right there. And that is why they are coming forward. And they are the ones that have to pay the bills, and they are saying, this is a justified investment. We are prepared to pay more to get this investment.

Mr. SIRES. Anybody else want to take a—

Mr. CONNAUGHTON. Most of our gas tax actually went into our maintenance fund, and over the last 10 years, because we are a maintenance-first State by law, we have had to take over \$3 billion from our construction account and move it over to maintenance. Actually this year we were going to go up to \$500 million. So we can actually put a price tag on some of this inactivity, particularly on the gas tax.

But the thing is that our legislature, it took them 12 years of fighting about this issue and everything, and finally we had done everything that we have been asked to do looking for P3s, infrastructure banks. We laid off 1,000 people. We did all the things, squeezed everything out the system we could squeeze, and we still showed them at the end of the day we had to act, and that was the only way that we finally got everyone to agree on the changes we brought in Virginia this year.

Mr. SIRES. Fortunately New Jersey has, I think, one of the lowest State taxes on gasoline, but yet there is no will to even put a nickel or a dime on the gas tax to deal with the Transportation Trust Fund.

Mr. CONNAUGHTON. Sir, one thing we were able to show was a real shock was the new CAFE Standards at 54 miles per gallon coming in, and we could show them that just to catch up for inflation, we would have to move our current—what was the 17.5 cent gas tax up to 36 cents, and then to catch up due to the new standards coming in, we would have to then move the gas tax up to about \$1.80 or so. And that is when people finally started understanding what was—some of the troubles with the gas tax and what we are facing out in the future.

Mr. SIRES. You know, I know people talk about the private sector, and I have been involved with combinations of the private-public sector, but one of the things that I find is that the private sec-

tor, they don't really have the time to wait 25 years to get their money back.

I mean, if you are a municipality, you built a parking garage, and somehow you work with the private sector, they want their money pretty soon. But if you built it with a municipality, it will take 20, 25 years, but it is all right, you get the money back in 20, 25 years.

But the private sector seems to be wanting almost instant gratification or instant profit, and I am concerned that in some of the areas where you are going to be able to work with the private sector, it is fine. New Jersey, I mean, it is very congested, but some of the other areas in the country where you don't have the kind of congestion, I don't think you are going to get too many people involved in a public-private sector venture. I mean, am I wrong?

Mr. SCHENENDORF. No. I think what we found is that the innovative financing is an important part of the solution, but it is a niche part of the solution. The overall investment that is needed in the overall network on a systemwide basis involves finding funding sources far beyond the public-private partnerships and other kinds of innovative financing techniques.

There is no question they shouldn't be thrown out. There are certain projects that they work for, and that is part of the solution. But that isn't the solution to investing in the national infrastructure.

Mr. SIRES. That is not a total solution.

Mr. CONNAUGHTON. Sir, I should point out, in Virginia last year we closed more P3 deals than anyplace in the country. In fact, we were number two in the world, right after the United Kingdom. The concession out here on the Beltway and 95 are 75 years. The tunnel deal we have down in Hampton Roads is actually a 58-year deal. But there is only—as you mentioned, there is only certain places that you can actually do these types of deals where there is investors interested in taking that sort of long view and building and actually running the concession for a long time.

Mr. SIRES. It seems it is something good for the East and maybe some parts of the West, but I think some of the places in between it may not make a lot of sense for some of these private ventures.

Mr. ATKINSON. Our commission probably was a little more optimistic than Jack's. If we had the same level of tolling as Florida and Texas do, which is not a lot—they have a fair amount, but not certainly a lot—we could be raising an additional \$25 to \$30 billion a year nationally.

The way we looked at it on our commission was that the needs are so dramatic that we have to put everything on the table. I think if we had a national tolling system, we could raise a lot of money, and we could raise a lot of money in the middle-of-the-country States. But certainly we have to raise the gas tax.

Americans pay half to travel on a mile of road today than they paid 20 years ago in inflation-adjusted dollars. So we have had a national policy of saying every year we are going to cut the cost you pay, and it should be no surprise what the result is.

Mr. SIRES. You are talking about a national toll system which will be added on to the State system. Is that what are talking about?

Mr. ATKINSON. I think two things. I do think we need to toll the interstate to pay for it. But ultimately, as I said before, I think we have to move to a VMT system.

One of the advantages, by the way, of a VMT system is it puts private-sector projects on a much more competitive basis. The reason—for example, there is a road out here in Virginia, the Dulles Greenway. I think that is a 100-percent privately funded road. It is very hard to do those because you are competing with free. I can drive out to Leesburg on Route 7 and not pay anything other than my gas tax, or I can drive on the greenway.

One of the advantages of doing a VMT system is that basically every road you have to pay for, and you enable a much more robust set of projects to be developed. So, again, I think this is such a serious problem, we have to put everything on the table.

Mr. SIRES. Thank you very much for being here today. It is not easy.

Mr. DUNCAN. All right. Thank you very much.

Secretary Connaughton, did I remember this correctly that you said you are receiving approximately \$900 million from Federal sources a year; is that correct?

Mr. CONNAUGHTON. Yes, sir, \$930 million or so.

Mr. DUNCAN. And that that now is about one-fifth of your total budget.

Mr. CONNAUGHTON. Yes, sir.

Mr. DUNCAN. So your budget is \$4.5 billion, roughly.

Mr. CONNAUGHTON. \$4.5 to \$5 billion.

Mr. DUNCAN. And then the \$1.5 billion that the new taxes add on, that will move your budget up to roughly \$6 billion a year for transportation?

Mr. CONNAUGHTON. Yes, sir.

Mr. DUNCAN. But you said that the Federal sources, you estimate in a short time, but you didn't really say an exact time, are going to go down to maybe one-seventh.

Mr. CONNAUGHTON. Yes, sir. When we start looking at the Highway Trust Fund, right now if you just looked at purely revenues coming into the Highway Trust Fund, we should be, I guess, receiving about \$650 million. We start running out those numbers on the Highway Trust Fund and how much we are receiving, and at some point when you deal with this issue, either you increase revenues, or we are going to see a decrease in our expenditures or the money coming to the State.

And then we also see with the increased revenues coming into the State system that we will be up—in about 6 or 7 years, we will be up to almost \$7 billion in our program.

Mr. DUNCAN. Knowing that it is not possible to satisfy any Government agency's wish for money, what kind of job are you able to do with the budget that you have? Now, I am not saying in a dream world you wish you had five times, three times as much money as you have now. But are you meeting the needs of the State of Virginia at that level, or are you just doing half of what you need to be doing, or what can you say about that?

Mr. CONNAUGHTON. We are catching up. Mr. Chairman, I think there is never enough money for transportation. It is one of these things. And I think in some ways we are our own worst enemies

when we talk about this from our side of the table in that we always throw up these trillions and trillions of dollars of needs. The thing is that if you look at the revenues coming in, you figure out ways to make it stretch. We are now doing design builds. We are doing public-private partnerships. We are figuring out ways to, say, looking at more IT. We are investing heavily. In fact, we have privatized our traffic operations areas, centers, and trying to make it a statewide system so that we can actually get more IT, better IT to control traffic.

Out here on 66 you will see next year the new system we are putting in, which will control individually the lanes and the speeds in the lanes and will open and close lanes based on conditions.

So there is never enough money. The issue is is certainty in the system, how much money you have coming in, focusing on those projects that have a bigger effect on transportation and congestion and mobility.

Mr. DUNCAN. I have read in the Washington Post that there is NOVA and RVA.

Mr. CONNAUGHTON. Yes, sir.

Mr. DUNCAN. And I get the impression that you are having to spend a pretty big portion of your transportation budget in northern Virginia. How are you figuring that out?

Mr. CONNAUGHTON. Yes, sir. Well, first off, I have a special fund, meaning that all the taxes and fees are dedicated to transportation, and then we control where they go, the allocations, by a statewide board that I chair. We have different formulas, you know, that go to different types of systems, interstate, primary, secondary, things like that. We have transit allocations. We have our port fund. We have all these different things.

Up to recently, actually the rest of the State was actually subsidizing the growth and the activity, economic activity, up here in northern Virginia, particularly if you saw all the money we are putting into transit. But we try to equalize it out. The rest of—Virginia is one of the few States where we control the entire road system. So we have actually the third largest State-controlled road system in the country. And the rest of the system has really been seriously degrading because of all the money we have had to be putting up here in northern Virginia. But we are actually now trying to catch up and do more maintenance out there.

Mr. DUNCAN. What is the population of Virginia now?

Mr. CONNAUGHTON. It is \$8.2 million.

Mr. DUNCAN. \$8.2 million?

Mr. CONNAUGHTON. Yes, sir.

Mr. DUNCAN. And, Mr. Dormsjo, what is the population of Maryland now?

Mr. DORMSJO. It is about \$5.5 million.

Mr. DUNCAN. And what is your budget for transportation?

Mr. DORMSJO. On an annual basis it is a little bit north of \$4 billion.

Mr. DUNCAN. \$4 billion.

Secretary Connaughton, how does your infrastructure bank work? You said that you got \$400 million.

Mr. CONNAUGHTON. Yes, sir.

Mr. DUNCAN. Was that just a one-time movement of \$400 million into that? I mean, we have this rail infrastructure loan program that is not being used much at all. Are you having quite a bit of demand for loans from your infrastructure bank? Tell me a little bit about that.

Mr. CONNAUGHTON. Yes, sir. We set up a—we had a Federal infrastructure bank where you put Federal money in and potentially help loan to Federal projects. But there is lots of—I am going to say lots of strings attached to that.

We decided to set up our own infrastructure bank with purely State revenues. Most of the money has come from—we get a piece of the State surplus every year. It ranges from \$25 to \$80 million. We take it and put it into this essentially revolving account.

We make loans. We actually have a bridge project down in the Hampton Roads area that we are lending to this locality to build a bridge that will have a toll on it, and they have essentially 30 years to pay that back at a low interest rate. They were able then to use that low-interest loan to get much better rates on their bonds and improve their overall rating on the city.

I have this project out in Loudoun County where we are lending to build this road, and they are paying back on their mandated proffers that the developer is paying into. We have another one where we use the loan, some money, as a credit enhancement to make another project's bond rating stronger and more appealing.

Mr. DUNCAN. Are you making these loans to private companies, or are you making them to cities or counties, or a combination?

Mr. CONNAUGHTON. A combination. We want a local sponsor. We want a locality to sponsor a project, but actually we can also give loans to private entities as well.

Mr. DUNCAN. And what has been the reaction so far?

Mr. CONNAUGHTON. It is extremely positive. Because what we are looking for are ways for us to essentially take \$300 or \$400 million that we put into this and to actually maximize the investment in getting as many different projects going as possible, projects that would not normally get to move forward, and then we are going to take the revenues in there and actually put it back into additional projects as the money comes in.

Mr. DUNCAN. Right now do you have several projects that are on the drawing board or that have been requested, and do you have a waiting list?

Mr. CONNAUGHTON. We have quite a few projects who have asked to be considered for this, but right now we have essentially hit that \$400 million, so we are going to have to wait for the next tranche of money to come in before we can go out.

We have two more projects, smaller projects. Since we put a lot of money into this bridge project, a lot of money into this road project, quite a bit of money into this bond essentially and revenue—this bond enhancement fund. We only had a small amount of money. We have got a couple of small projects that we are going to support. One is a rail project, and another one is related to my port. And then we will wait to see where the revenues are next year, put money into that bank, and then go back out again.

Mr. DUNCAN. Mr. Dormsjo, I understand that Virginia has trust funds that are mode-specific, but Maryland is mostly mode-neutral.

Is there an advantage or disadvantage to either system, or what do you see as to the advantages or disadvantages?

Mr. DORMSJO. I will let Sean comment after I make my assessment, but I think the integrated structure is advantageous, and I think there is a tremendous benefit to the State of Maryland to have a common pool of revenues from our airport, our port, the Motor Vehicle Administration fees and charges that can be flexibly deployed as we try to deliver the most worthy capital projects.

We have periods of time in our State's history when we have had to get large highway projects done, so we have overweighted our capital program towards those critical projects in the highway space, and then there have been other times when we needed to make expansions at BWI Airport, and we have had the resources to make those investments. Now we are emphasizing transit investments more so than we have in the past. So we like the structure of a trust fund that is not broken up into different accounts.

Mr. DUNCAN. All right. Secretary Connaughton, you can comment about the question to Mr. Dormsjo if you like, but also I am curious about your inland port. How is it going?

Mr. CONNAUGHTON. It is doing excellent.

One of the things first to address this issue about these individual funds, we have this broad fund, special fund called Commonwealth Trust Fund, and then we have subaccounts with dedicated fees towards it. So I have one for aviation, one for my port, and several for my rail, and then the highway maintenance, and then the highway construction accounts.

We like it for a few things. First is it gives us the ability to plan out and work with the private sector on the use of these funds. And so like the rail accounts, we require some sort of participation. We put in some, they put in some. It gets more buy-in and more, I am going to say, focus on dealing with some—particularly in the freight issues, because it is no way. When you look from a place like Virginia where you have northern Virginia, a freight rail project is going to have to compete with a Metrorail project. And one handles 700,000 people a day; the other one handles several thousand cars. So it is railcars a day. It is very difficult for the rail projects to compete in that sort of climate.

So we have these accounts. We are putting \$40 million per year into freight rail. We are putting \$40 million a year into port infrastructure. We are putting about \$20 million a year in our air. It is not big in the context of all the other funds, but we are able to deal with our problems.

Also, when we came to this political issue of passing legislation this year, we had all the modes; we had almost 80 or 90 different groups from every mode working together to get the bill through because they all saw some benefit from it.

Our inland port is actually—some of the things we are trying to do in our freight rail, in our freight plan, in trying to cause modal shifts, we move about 35,000 to 40,000 containers a year at the inland port, and so we are intercepting trucks from off of 81 and off of 66 that would normally drive all the way down to our port and back. So if you drop it at our inland port, it is as if you drove it down to Norfolk.

We are building a similar facility at the southern end of 81 down in Montgomery County that is going to have the same arrangement, and then now we have started up the same sort of activity at the Port of Richmond, which is a small port. It is right on 95. We are building rail enhancements to it, and we are taking a barge service and we are loading containers at the port and taking them up the James River. And there we have only started service a couple years ago. We have taken about 8,000 containers, meaning about 16,000 trucks, off of 64 every year. And that is what we are trying to do is cause a modal shift. We are not trying to make money on it, we are just trying to get those trucks off the road and intercept them.

Mr. DUNCAN. I remember years ago there was a study about having a freight-rail corridor up and down I-81, from Harrisburg down through Virginia and so forth. That has been sort of a dream, I guess, for a long time.

Mr. CONNAUGHTON. We are actually supporting the Crescent Corridor project of Norfolk Southern. We obviously put State money into the Heartland Corridor to make them—I mean, the Commonwealth of Virginia put money into a project that actually made rail improvements in West Virginia and Ohio because we viewed it as helping our competitiveness. We have just committed over \$30 million for this tunnel right over here, the Virginia Avenue tunnel, to allow double-stack trains to run on the CSX line there.

So we are doing everything we can, even putting our money in States outside of, obviously, Virginia to improve our—

Mr. DUNCAN. Well, I will tell you, many, many years ago I requested the first money for the first study of that Crescent Corridor at the request of Norfolk Southern and because it made so much sense to me. In fact, I saw benefit, great benefits, even to Tennessee.

Mr. Atkinson, did I understand you to say that your study or your report showed that trucks pay 85 to 90 percent of the costs of the damage they do; is that correct?

Mr. ATKINSON. We referred to a study, a cost allocation study, that was done by the U.S. Department of Transportation in 1997 and then updated in 2000 that indicated on the whole that that was about what trucks paid relative to the costs. Some trucks—if a truck were traveling with a very light load, it would actually pay more than—it would pay less than what its overall costs were. A truck with a heavy load would actually pay a lot less than its overall costs. But on net it appeared from that study that trucks are subsidized relative to rail.

Mr. DUNCAN. I know I have gone way over.

Mr. NADLER. Could you yield just for a question on that point?

Mr. DUNCAN. Go right ahead.

Mr. NADLER. Thank you.

Just on that point, there was a study a number of years ago which you may be familiar with that said that the—I don't remember if it was a 70,000- or 80,000-pound truck did the same damage, wear and tear, and vibration damage to a highway as 9,600 automobiles. Are you familiar with that study? And if so, if that is accu-

rate, how can you reconcile it, because they don't obviously pay 9,600 times what a car pays?

Mr. ATKINSON. I am not familiar with that particular study. I am familiar with studies that suggest that very heavy trucks—passenger vehicles do very little damage to most roads. Damage is caused principally by heavy trucks, which is why I argued in my testimony that you could—the technology does exist to move to a VMT system that has axle weight sensors on them, and you could charge a truck commensurate with the actual damage they are doing on particular roads.

For example, some roads are not designed even for heavy trucks, and when a heavy truck goes on that road, they do a lot of damage. Other roads are designed for heavy trucks, and they will do less damage. But there is no incentive now for trucks to go on the right road, if you will, and there is no incentive for trucks to be more efficient in that sense. So that is why I do think charging trucks commensurate with their actual costs that they impose on the system, particularly pavement damage, is an efficient thing for our country to do.

Mr. NADLER. But agreeing on the concept and the goal of doing exactly that, it was a USDOT study from many years ago, the 9,600, because I used to quote it when I was in the State assembly, so I don't know if it has been updated, but if a very heavy truck does that kind of damage, and yet trucks overall do pay 85 to 90 percent, it would sort of lead to the implication that maybe heavier trucks ought to pay much higher taxes.

Mr. ATKINSON. Yes, it would. I agree with that.

Mr. NADLER. Thank you. I am finished.

Mr. DUNCAN. Mr. Schenendorf, you used the word “extraordinary” in referring to the fact that most of the trucking industry seems to be united, and a lot of the inland waterway users are at with paying more, and it is pretty extraordinary to have industries that are willing to pay more.

In the report you did, what has been the reaction to other parts of your report, like, for instance, from aviation and rail and so forth? And I will ask you and Mr. Atkinson both, are you satisfied with the reactions to your reports, or the action or lack of action since those reports came out?

Mr. SCHENENDORF. Well, ours, like Rob's, it all focused on surface transportation since we didn't look at aviation, and basically both studies came to very, very similar conclusions.

You know, I will be honest with you: Everybody agrees and can recognize what is happening, but nobody wants to raise money. Nobody wants to have more investment and to pay for that, even though that is what is called for.

I said it in my testimony, the studies, you know, could fill this room that have been done and come to the same conclusion, and that is we need to invest more. But then when you start talking about, well, how are we going to pay for it, nobody wants to raise taxes, nobody wants to put tolls or user charges on. And so consequently the investment hasn't been made, and because the investment hasn't been made, the system functionality is deteriorating.

That is what business sees. That is why shippers are coming to you and saying, we want to pay more if you will help fix this system. And that is why it is not just the trucking industry and the barge owners, it is the shippers, it is the people who are actually using that system. And, of course, they ultimately are going to be paying for it because it is their goods that are on these trucks or water or barges, and they are saying, we are willing to pay more because we are seeing what is happening. And they are becoming less competitive, the system is less reliable, it is becoming more costly. Inaction is becoming more costly to them than actually raising the money to do the investment that is needed to provide the capacity and the reliability.

So I am disappointed. And it is not going to change, I don't think. I don't think what needs to be done can be done by one political party. It is not going to change, in my judgment, until the two parties can come together. And I think a lot of people think maybe the grand bargain is the way to do that.

And just because of the economic growth potential, Simpson-Bowles put in a significant increase in the motor fuels taxes and spent it all, because of the linkage to the economic growth.

And so I think that, you know, maybe it will take something like that in order to allow this to happen. But it has to be a situation where the two parties come together and say, this is what is right for America. And today's—

Mr. DUNCAN. Well, traditionally, this committee has done better at coming together than almost any committee in the entire Congress.

Mr. Seltzer, you know, one of the problems on all these transportation-related projects is that they, over the past many years, have taken three or four times as long as they should have or needed to or compared to other countries. Do you think we could do more to speed things up?

I know, for instance, that you are familiar with the Tappan Zee project. I understand the NEPA process was speeded up on that project.

Mr. SELTZER. Correct, sir. But it is not just the environmental and regulatory approval. It is the actual design-build construction that expedites the completion of the projects if the funding/financing is there.

So we are seeing more and more projects, not just toll-backed projects that are generating their own revenue stream, but even projects supported by State highway funds being done through public-private partnerships—P3s—with so-called availability payments, which are general State or local government resources paid to a private team responsible for designing, building, delivering, operating, and financing the system.

So it is not just a toll-road concept; it could be applied and is being applied more generally.

Mr. DUNCAN. Of course, when we are forced to, we can move pretty fast, like on the Interstate 35 bridge in Minnesota.

Mr. SELTZER. Right you are, sir.

Mr. DUNCAN. All right.

Mr. Sires, anything else you want to ask about or add?

Mr. SIRES. No. I was just curious about the last—build, design, and operate. In my district, we did a light rail that has been very successful, you know, design-build, that moves about 50,000 people now in a very congested area. And it has worked out very, very well. There was a lot of skepticism when we first started with this project. So I have the experience where it worked and it saved a lot of money.

Mr. DUNCAN. Mr. Nadler, any—

Mr. NADLER. No.

Mr. DUNCAN. Well, we have kept you far too long, but you have been very helpful.

And I will tell you this. We are getting ready to write this report and these recommendations here in the next few days, so if you have anything you wish to add that we didn't get to here today or if you have any specifics you want to have us take a look at, get them to us right now. And we need all the help we can get.

Thank you very much. That will conclude this hearing.

[Whereupon, at 3:27 p.m., the panel was adjourned.]

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Written Testimony

Of

The Honorable Sean T. Connaughton, Secretary of Transportation

Commonwealth of Virginia

Before

The Committee on Transportation and Infrastructure

Panel on 21st Century Freight Transportation

United States House of Representatives

On

Funding the Nation's Freight System

October 10, 2013

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Of
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Mr. Chairman and distinguished members of the Panel, thank you for the opportunity to appear before you today to discuss funding the nation's freight system and what states, such as the Commonwealth of Virginia, are accomplishing in this arena.

Introduction

As home to one of the largest seaports on the East Coast, four major cargo airports, two Class I freight railroads, and some of the nation's most heavily traveled truck corridors, freight transportation plays a tremendous role in the Commonwealth of Virginia's economic prosperity. However, like all states, and the nation as a whole, the Commonwealth must continue to take the steps necessary to adequately plan for and invest in our freight infrastructure. Virginia's efforts in this area are paying dividends. The initiatives and projects implemented during the McDonnell Administration are helping ensure that Virginia's burgeoning manufacturing, distribution, and other business sectors have the infrastructure necessary to grow, create jobs, and maintain the Commonwealth's position among the most business friendly states in the nation.

Freight in Virginia

Centrally located along the East Coast of the United States, the Commonwealth of Virginia is within a one day drive of 40 percent of the U.S. population and a two day drive of 70 percent of the U.S. population. Fifty-five percent of the U.S. population resides within a 750 mile radius. This central location plays a critical role in the impact freight transportation has on the overall Virginia economy.

Each year, Virginia's multimodal freight transportation system handles around 900 million tons of freight valued at approximately \$2 trillion. Much of, but certainly not all of, this impact is generated due to Virginia's central location and the Port of Virginia. The Port of Virginia, which will be discussed in greater detail below, makes Virginia a gateway to international trade and helps support much of the economic impact generated through freight transportation.

For example, Virginia is home to over 6,000 manufacturing establishments, which exported over \$18.1 billion in goods in 2011. These manufacturing facilities ship and receive their goods into and out of the Port of Virginia through a global logistics network that supports over 68,000 jobs. Each year global logistics supports approximately 20,200 jobs in trucking, 19,300 jobs in warehouse, and 14,600 jobs in transportation support. Global logistics related activities in Virginia have a direct economic output of \$8.6 billion and support an additional \$6.6 billion in indirect output.

Looking at the broader impacts of freight on Virginia's economy, roughly 50 percent of Virginia's output, 28 percent of our gross state product, and 34 percent of our employment are generated through freight-related industries. Economic estimates forecast that this impact is projected to grow tremendously over the next 30 years with freight industry output projected to increase by 100 percent, freight industry gross state product by 70 percent, and freight industry employment by 20 percent. Further, freight tonnage is projected to grow by 113 percent, with international container trade and air cargo trade each projected to grow by more than 200 percent.

Virginia's freight industry is supported by the third largest state-owned highway network in the U.S., the third largest seaport on the East Coast, two Class I national freight railroads, nine short line railroads, and four international cargo airports. Over the past decade, Virginia has advanced several major infrastructure projects to improve our freight-related infrastructure. Several key examples include completion of the Norfolk Southern Heartland Corridor, which provides double-stacked rail access from the Port of Virginia to the Midwest; completion of Phase I of CSX Railroad's National Gateway, which was celebrated here in Washington earlier this week; widening Route 58 to four lanes between Virginia Beach and I-77 in southwest Virginia; completion of the Route 164 median rail line, which improved rail access to APM

Terminals in Portsmouth, the most technologically advanced marine cargo terminal in the United States; and expanding use of the James River Barge Service's 64 Express to transport containers to and from the Port of Virginia.

Additionally, several major projects designed to enhance our freight transportation network are also underway. Examples include the I-564 Intermodal Connector in Hampton Roads, new truck climbing lanes and safety improvements on I-81, and widening I-64 from Newport News to Williamsburg. While these projects are all tremendous steps to improving not only our freight-related infrastructure but also our transportation networks in general, Virginia, like all states and the nation as a whole, must continue to take innovative steps to better plan for and fund the future infrastructure necessary to support projected demand in freight transportation, attract new economic development opportunities and create jobs.

Virginia's Freight Plan

Recognizing the importance of freight's role in transportation planning, the Commonwealth recently completed the Virginia Statewide Multimodal Freight Study. This study, which began in the mid-2000's and culminated with a final report in 2010, serves as the foundation for freight planning in Virginia. Phase I of the study focused primarily on collecting data and inventorying conditions and needs, while Phase II focused on identifying both short and long-term projects and strategies for improving freight transportation in Virginia.

The study concluded that, while Virginia's transportation planning process has historically done a good job of accounting for future congestion, it did not connect the growth trends of trade and business to transportation demand, nor did it assign impact or value to the freight transportation industry in terms of growing congestion or planned transportation improvements. To remedy this situation, the study made findings and recommendations, aside from identifying potential freight related projects, to address these issues: to prescribe an effective freight transportation policy; to make more accurate statements to decision-makers and the freight community as to what the Statewide Transportation Plan does for freight mobility; and provide tools to Virginia's transportation planners to evaluate recommendations and make decisions based on collaborative transportation goals that impact, not only freight transportation providers, but every consumer that pays for their service.

Today, not only are many of the projects identified in the freight study underway or programmed for the near-term, but freight plays a central role in Virginia's long-term transportation planning process. The Virginia Multimodal Freight Plan, set to be complete by December 2013, develops policy recommendations for freight which reflect stakeholder input from the Virginia Freight Transportation Advisory Committee (VFTAC), the Virginia Freight Transportation Technical Committee (VFTTC), and the VTrans performance based planning process; organizes and supplements information from the 2010 Multimodal Freight Study to meet new Federal requirements for state freight plans introduced in Moving Ahead for Progress in the 21st Century (MAP-21); provides recommendations for strategies and projects types to achieve the goals of MAP-21; and identifies policy initiatives that can be translated into project recommendations at the agency level. The Virginia Multimodal Freight Plan not only serves as a key input to VTrans, Virginia's long-range transportation plan, but also fulfills new Federal requirements that states identify major freight needs within statewide freight plans in order to qualify for increased Federal funding for freight projects.

Rail Funding

Virginia has also long recognized the importance rail infrastructure plays in the Virginia economy and freight transportation network. In recognition of this importance, the Virginia General Assembly has created and funded three separate funds geared towards funding our rail infrastructure: the Rail Enhancement Fund (REF), the Rail Industrial Access Fund (RIAF), and the Rail Preservation Fund (RPF). Through the REF, the Commonwealth helps fund up to 70 percent of the costs of major rail infrastructure projects. Examples of such projects include the Heartland Corridor and the National Gateway as referenced above.

The Rail Industrial Access Program helps connect businesses to freight rail service by funding the construction or improvement of railroad tracks and facilities to serve industrial or commercial sites where freight rail service is currently needed. This grant program supports localities, businesses, or industries seeking to provide freight rail service, through Virginia's shortline railroads, between the actual site of an existing or proposed facility and common carrier railroad tracks. The RPF also provides grants to improve shortline railroad infrastructure.

Port of Virginia

The Port of Virginia is one of the Commonwealth's most important economic assets. According to an economic impact report compiled by the Mason School of Business at the College of William and Mary, the port annually supports over 343,000 direct and indirect jobs and generates \$41 billion in revenues, over \$13 billion in payroll, and \$1.2 billion in state and local taxes. In calendar year 2012, the Port handled over 2.1 million TEUs, the second highest cargo volume in its history, and it is on pace to exceed that number this year.

As the only East Coast port currently capable of docking post-Panamax class vessels, the Port of Virginia is poised to undergo tremendous growth over both the short and long-term. Today, the Port is the only port on the East Coast with the 50 feet deep channels necessary for today's larger vessels, and Virginia's facilities have both the existing and planned terminal capacity to accommodate significant growth. Additional advantages include the lack of overhead restrictions in shipping lanes, access to two Class I railroads, good labor relations, and Virginia's overall business climate.

Pursuant to state law, the Virginia Port Authority receives 4.2 percent of Virginia's Transportation Trust Fund. This funding, which amounts to approximately \$39 million per year, is dedicated to the Commonwealth Port Fund (CPF). These CPF funds are the principle dedicated source of revenues for port related capital expenses, and are typically used to fund debt service on port bonds. The VPA receives no general fund revenue, and operations are funded through terminal operating revenues. A portion of terminal operating revenues are also used to support port related capital expenditures.

The Port of Virginia is not without its challenges, both internally and externally. Over the course of the past three years, the McDonnell administration has strived to create new efficiencies and reduce the costs associated with port operations. This effort culminated in this year's reorganization of the operating structure between the Virginia Port Authority (VPA) and its operating arm, Virginia International Terminals, principally in an effort to eliminate redundancies and reduce operating costs. As the reorganization and other reforms are implemented, the cost savings for the port will help generate additional revenues that can be

utilized to fund additional on dock infrastructure improvements and to help fund off-dock highway and rail projects.

A major external challenge facing the Port of Virginia is the movement of containers into and out of its cargo facilities in Hampton Roads. Over two-thirds of the containers moving into and out of the port move via truck. Because of the port's location in Hampton Roads, truckers hauling containers to and from the port must pass through one of several major bottlenecks at the region's bridge-tunnels and fight congestion on I-64 or travel rural Route 460 to connect to other major arteries. These bottlenecks are among some of the most congested infrastructure facilities in the Commonwealth and cost shippers time and money.

To combat this congestion, the Port of Virginia has over the years initiated a number of projects to reduce truck traffic on Virginia's highways. For example, the VPA owns and operates an intermodal facility at the Virginia Inland Port in Front Royal. This facility enables truckers traveling from the Midwest and Northeast to offload their containers and put them on rail for the remainder of the trip to Hampton Roads. Additionally, the VPA leases and operates the Port of Richmond, which is served by the James River Barge Service. The 64 Express has grown from one weekly trip to two trips per week, and will soon expand to three trips per week. This service enables truckers to offload their containers in Richmond to avoid the congested I-64 corridor. Finally, the Commonwealth is working with Norfolk Southern to construct the new Elliston Intermodal facility in Montgomery County. However, despite these intermodal successes the Commonwealth and the VPA must address the bottlenecks referenced above for the port to utilize its advantages and achieve its projected growth.

Freight Projects

Addressing the port's highway related bottlenecks has been among the McDonnell Administration's top transportation priorities. Not only do these bottlenecks hurt the port's future competitiveness, but they also negatively impact the daily lives of those citizens living and working near the port. However, because the Hampton Roads region is surrounded by water, these projects cost many billions of dollars. Addressing these bottlenecks alone – both to generally improve our transportation infrastructure and help the Port of Virginia grow – will cost well over \$10 billion.

The Virginia Department of Transportation is currently undertaking two projects in the Hampton Roads region through partnerships with the private sector. These projects – the Downtown Tunnel/Midtown Tunnel/MLK Extension Project (“Midtown Tunnel”) and the Route 460 Corridor Improvement Project (“Route 460”) – are both utilizing innovative financing mechanisms to make otherwise unaffordable projects affordable, and will not only improve freight transportation, but significantly reduce congestion for commuters and truckers alike. By partnering with the private sector, not only is Virginia leveraging a limited state investment to complete billions of dollars worth of infrastructure, but these projects will be completed much sooner than if the state funded them entirely on their own.

The \$2.1 billion Midtown Tunnel Project, which is being constructed by Elizabeth River Crossings, will lead to the refurbishment of the existing Downtown Tunnel, a new two-lane tunnel next to the existing Midtown Tunnel, and an extension of the Martin Luther King Expressway to provide greater interconnectivity between the two facilities. The Downtown Tunnel is the most congested facility east of the Mississippi River, and the Midtown Tunnel provides a critical connection for truck traffic to and from the port, as it provides access to Route 58 and Route 460 for truckers connecting to Interstates 85 and 95. The additional tube at the Midtown Tunnel will provide much needed additional capacity as the port continues to grow, and the MLK extension will enable both commuters and truckers to more easily choose between the two tunnels based on incidents and other congestion.

The Route 460 Project, while not a traditional P3 project, demonstrates how innovative approaches to transportation projects not only help the freight industry, but can also improve emergency preparedness, reduce congestion, attract economic development, and create jobs. The existing Route 460 is a four-lane rural road running through several small towns and communities. It is not designed to accommodate significant truck traffic, and is frequently prone to flooding and major delays from incidents. However, because of the corridor’s proximity to the port and a CSX rail line, many of the local governments throughout the corridor are undertaking aggressive economic development campaigns to attract the manufacturing companies, distribution centers, and intermodal facilities that will support future growth at the Port of Virginia.

The Route 460 Project is a new 55 mile, four-lane, limited access tollway that will run parallel to the existing Route 460. To fund the project, VDOT has established a 63-20 corporation to issue \$216 million of tax-exempt bonds, with VDOT providing \$930 million in funding and the Virginia Port Authority providing \$250 million, pending a determination on a TIFIA loan. From a freight standpoint, the new 460 will provide faster access to Interstates 85 and 95 for those trucks that currently travel existing Route 460, while providing a more timely alternative for those truckers that currently choose to travel through the tunnels and up Interstate 64. Also, the new roadway will significantly enhance emergency preparedness by serving as a new evacuation route from Hampton Roads, and will generally serve as an additional artery for the hundreds of thousands of tourists and vacationers visiting the region each year.

Perhaps more importantly, because of its key location near the Port of Virginia, the new Route 460 will help attract thousands of jobs and countless economic development opportunities from companies looking for direct, easy access to the port and surrounding intermodal facilities. A 2012 economic impact study conducted by Chmura Economics projected that once complete, the direct and indirect benefit of the new Route 460 and related growth at the Port of Virginia could result in as many as 25,000 new jobs and nearly \$14 billion in economic impact.

These two projects are emblematic of the types of investments that must be made to enhance our nation's freight infrastructure, and they demonstrate the type of innovative partnerships that must be utilized in the face of constrained financial resources. Public-private partnerships – whether traditional partnerships for road construction, innovative new financing mechanisms like that utilized for the Route 460 partnership, or shared investments with railroads – must play a critical role in the future funding of freight infrastructure throughout the nation.

MAP-21

For the first time ever in federal transportation policy, Moving Ahead for Progress in the 21st Century (MAP-21) recognized the importance of freight transportation and the role the efficient movement of commercial goods plays to growing the United States' global competitiveness. MAP-21's freight related provisions include the designation of a National Freight Network, the development of a national freight strategic plan, prioritization of projects to improve freight movement, encouraging states to form state freight advisory committees and

establish freight plans, and the implementation of national performance measures for assessing freight movement on the interstate system.

In Virginia, we welcome recognition of the importance of freight in federal surface transportation policy. As noted above, Virginia previously created a freight advisory committee and freight plan, and we are currently in the process of updating our plan to comply with the provisions of MAP-21. Additionally, the enhanced funding opportunities for projects on the National Freight Network are a welcome addition to federal surface transportation policy.

As the Chairman of the American Association of State Highway and Transportation Officials Special Committee on Intermodal Transportation and Economic Expansion, I can also say collectively that the new importance placed on freight transportation at the federal level is a tremendous step forward. However, as with any new policy, I believe there are certain areas where we still must improve as Congress begins to look toward a reauthorization. Specifically, the National Freight Policy should recognize the importance of moving goods between population centers and rural areas, as well as the multimodal and intermodal nature of freight transportation. Additionally, Congress should provide enhanced eligibility for states to undertake multi-state planning initiatives and projects given the inter-state nature of freight transportation. A further consideration should also be expanding the National Freight Network. The initial 30,000 mile cap is too restrictive and does not adequately recognize the differences between states in designating Critical Rural Freight Corridors. Lastly, as we work in partnership with the federal government to implement the new performance measures, it is imperative that Congress not make changes so states have an opportunity to assess their effectiveness.

Conclusion

Freight transportation is a critical component of the Commonwealth of Virginia's and the nation's overall economic prosperity. Both states such as the Commonwealth and the federal government are making tremendous progress in recognizing this importance and beginning to adequately plan for future growth in freight transportation. As we continue our efforts, it is imperative that we continue to maintain the long-standing partnership between the states and the federal government on transportation policy. The federal government must continue to provide states with the flexibility and tools contained in MAP-21, while fully funding the Highway Trust

Fund, and states must continue to look for innovative new solutions to solving transportation funding at the state level.

Mr. Chairman, distinguished members of the panel, thank you again for the opportunity to be here today. I look forward to our continued partnership as we work to build the 21st Century freight networks necessary to ensure our continued economic prosperity.

Testimony of
Leif Dormsjo

Deputy Secretary, Maryland Department of Transportation
Regarding

“Funding the Nation’s Freight System”

House Panel on 21st Century Freight Transportation
October 10, 2013

Good morning. Chairman Duncan, Ranking Member Nadler, members of the Panel, my name is Leif Dormsjo, Deputy Secretary of the Maryland Department of Transportation (MDOT). Thank you for the opportunity to provide this testimony on behalf of the State of Maryland and speak about the utilization of Public Private Partnerships, or P3s, to help address Maryland's infrastructure needs.

I will outline how, combined with traditional federal and State funding sources, Maryland has successfully implemented P3s to accelerate the delivery of critically needed projects. I would like to emphasize that the benefits of P3s are not a substitute for traditional federal and State funding sources. P3s can be a valuable tool in the toolbox but must be viewed as a supplement to predictable and stable federal and State investments.

Marylanders suffer from some of the worst congestion nationwide. Combined, the highest priority transportation project in every Maryland County and Baltimore City would cost over \$12 billion to construct. These challenging economic times call for new ways to do business. We realized that we needed to find innovative ways to make more effective and efficient use of public resources. Through P3 delivery of an enhanced Seagirt Marine Terminal, we have demonstrated that P3s can create greater overall value for the State. We are now taking the lessons learned from this project and applying them to a broader statewide, programmatic approach to P3 project delivery.

Seagirt Marine Terminal

Under Governor Martin O'Malley's leadership, we were able to complete the biggest port project in the State's history. On January 12, 2010, Maryland entered into a 50-year lease agreement with Ports America Chesapeake to construct and operate the Seagirt Marine Terminal at the Port of Baltimore.

For this P3, the Maryland Port Administration leased its 200-acre Seagirt Marine Terminal to Ports America Chesapeake. In return, Ports America constructed a 50-foot berth and agreed to make needed capital investment over the life of the lease, as well as taking responsibility for the terminal's operation. We estimated that 5,700 new jobs were created with 3,000 coming from constructing the 50-foot berth and from the resulting Maryland Transportation Authority highway projects. We expect 2,700 additional jobs will result from increased container business resulting from the Panama Canal project. From a State revenue perspective, it will generate about \$15.7 million every year in additional tax revenue for Maryland.

The total investment and revenue from this agreement to the State of Maryland has the potential to reach more than \$1.3 billion over the entire 50-year term. This includes an annual revenue stream of \$3.2 million in fixed rent and an additional \$15 per container above a 500,000 container threshold.

Seagirt was completed in 2012, two years ahead of schedule. As a result, Baltimore has now become the second port on the East Coast to have unrestricted access to both a fully functioning 50-foot channel and 50-foot berth. We are now prepared and well positioned to

receive the expected increase in the number and size of ships expected to travel to East Coast ports as a result of the Panama Canal expansion.

During the Seagirt P3 process, it became clear that communication and transparency was of utmost importance. In order to ensure a smooth and well-coordinated process, it was imperative to not only structure a transaction that would provide significant economic benefit to all parties, but to also keep key decision-makers apprised of any significant developments. Other characteristics that supported the success of the Seagirt P3 included:

- Well-defined objectives and evaluation criteria issued by MDOT at the beginning of the process. Clear goals demonstrate a commitment to proceed by the government.
- Reasonable expectations by both the public sector and private operator and a willingness to work together. It is important to have a mutual appreciation of risk sharing and long-term objectives.
- Commitment by the government and the private sector to the success of the project. The complimentary resources and skills of partners provide synergistic benefits.
- The agreement must be a win-win for the public and private sectors. Such alignment of interests establishes a relationship between the public and private sectors based on partnership, not confrontation. This provides the appropriate motivation to ensure that service quality is upheld to a high standard over the lifetime of the asset.
- The process should involve a well-coordinated reviews and approval process that enables timely closing. Throughout the process, it is important to make sure the goal line is clearly visible to all key stakeholders and decision-makers.

Applying Seagirt Lessons Learned to a Programmatic P3 Approach

MDOT is now applying the lessons learned from the Seagirt P3 to enhance its overall approach to P3 projects and processes. In addition to the P3 that is currently under construction for the two Travel Plazas on I-95, Governor O'Malley and Lieutenant Governor Anthony Brown recently announced that one of our New Starts projects, the Purple Line, will be Maryland's first transit P3 project. We are also evaluating elements of the Red Line in Baltimore City that may be appropriate for the P3 process.

Under the leadership of the O'Malley-Brown Administration, the Maryland General Assembly recently passed the State's Public-Private Partnership legislation, which took effect on July 1, 2013. The legislation provides the private sector with a stronger, more predictable, and streamlined process that balances risk and protects the State's interests. It draws upon the experience with Seagirt and provides a clear framework for delivery of future P3s.

Under the new P3 law and guided by new P3 regulations, MDOT is developing a more programmatic approach to identification, screening, and advancement of potential future transportation P3s. Over time, this will result in a substantial pipeline of future P3 projects across all transportation modes. Advancing P3s through this programmatic approach will

expedite asset delivery and free up State dollars to be used for other critical projects. Over time, P3s across all of the State's infrastructure sectors could contribute between six percent and ten percent of Maryland's annual capital budget, creating as many as 4,000 jobs.

Transportation Infrastructure Investment Act of 2013

As much as we recognize the benefits of P3s, they cannot and should not be viewed as a substitute for traditional funding sources. There is a great deal of synergy between the P3 legislation and the Governor's Transportation Infrastructure Investment Act of 2013. Thanks to the leadership of the Governor, Lieutenant Governor, Maryland Senate President Miller, Maryland House Speaker Busch and members of the General Assembly, this Maryland Act is already starting to pay dividends.

This historic Transportation Investment Act will shape the future of transportation in Maryland and provides MDOT much-needed resources to seriously address the pent-up demand for transportation projects. With \$4.4 billion in new funding that will make a real difference in Maryland's quality of life, we can now move projects that have already been studied, planned, and designed into the construction phase. The \$4.4 billion in new funds will create an estimated 57,200 jobs and spark billions of dollars in economic activity.

Since the bill signing in May, Governor O'Malley and Lieutenant Governor Brown have held a series of public events to announce more than \$3 billion of the \$4.4 billion in new funding to advance priority projects throughout the State.

The additional benefit from the Transportation Investment Act is the spin-off effect it will have to support the economic engines for Maryland from Baltimore/Washington International (BWI) Thurgood Marshall Airport and the Port of Baltimore to our freight business. From improving our environment to making it easier to get to work and to move freight, the positive impacts of the new \$4.4 billion in new projects over the next six years will be felt across the State.

Focus on Freight Mobility and Intermodal Connections

Although the focus of my testimony has centered on the importance of a variety of funding and financing options to build a multi-modal transportation network, I would also like to address the broader charge of this panel to address freight transportation. MDOT is a multimodal agency with a strong history of providing investment critical to efficient goods movement in the Washington/Baltimore metropolitan region, along multistate freight corridors including I-95 and the CSX National Gateway, and throughout Maryland, the United States, and the world.

MDOT is involved in everything from the management of our State-owned short line railroad serving the vital needs of agricultural customers on the Eastern Shore, to ensuring international cargo handled at the Port of Baltimore or BWI Thurgood Marshall Airport, moves efficiently along our rails and roadways.

We are fortunate that Maryland's State funding and organizational structure provide a flexible environment to plan and fund intermodal and freight mobility improvements. MDOT has a dedicated, mode-neutral funding source; the Transportation Trust Fund (TTF) is a pooled fund, supported by motor vehicle excise taxes and vehicle fees, fuel tax revenues and a portion of the State sales and corporate income taxes. None of these revenue streams are tied directly to a stove piped program or project. Using this flexible fund, we can and do apply State funding to intermodal passenger and freight projects.

Unfortunately, being the birthplace of rail in America has one disadvantage – our first-of-its kind infrastructure is now the oldest collection of tunnels, bridges and track. Located along colonial-era distribution pathways and built to 1870's standards, these facilities have significant capacity and clearance limitations that preclude access by industry-standard double-stacked containers to the Port of Baltimore. Addressing this impediment is a high priority for Maryland and the region. We are employing innovative mechanisms and partnerships and seeking federal funding to help remove these barriers.

In recent years, Congress has made significant investments aimed at supporting intermodal and freight projects through the United States Department of Transportation (USDOT) Transportation Investment Generating Economic Recovery (TIGER) program that gives states the ability to consider large-scale, big-ticket, and multi-modal projects.

A P3 related to the CSX Transportation's National Gateway Initiative was one of the earliest beneficiaries of the TIGER program, receiving \$98 million in the first phase of the project using grant funding from the American Recovery and Reinvestment Act (ARRA). Although this grant did not extend the federal investment far enough to move freight from the Port of Baltimore or to serve domestic markets in the Baltimore-Washington region, the effort spurred public and private partners to work together in development of an intermodal facility in Baltimore.

Thanks to the support of our Congressional Delegation, Maryland was able to secure a TIGER V grant for \$10 million in federal funding for the Port of Baltimore. Earlier this month, we were very pleased to welcome Vice President Biden, Senator Mikulski, Senator Cardin, and others to the Port of Baltimore to discuss its impact. The \$29 million project will use dredged material from the Port's main access channel to create a 7.6-acre cargo staging area in a prime location near the vessel berth. Rail access will also be added at Fairfield to improve the Port's handling of autos and roll on/roll off equipment.

In addition to TIGER, the President's High-Speed and Intercity Passenger Rail (HSIPR) initiative provides indirect freight benefits by reducing highway and air congestion and through improvements to system reliability and safety. Under this program, Maryland received funding for three projects critical to the Northeast Corridor: the Baltimore and Potomac (B&P) Tunnel Preliminary Engineering and NEPA (\$60 million); BWI Station Area Improvements PE and NEPA (\$9.4 million); and the Susquehanna River Railroad Bridge Replacement PE and NEPA (\$22 million). These projects will require significant future federal funds to construct.

MDOT also participates in farther-reaching regional coalitions such as the I-95 Corridor Coalition, the I-81 Corridor Coalition, and the Coalition of Northeastern Governors to tie our State efforts to a larger context and develop ideas to advance connectivity and mobility.

One product of these cooperative efforts was the Mid-Atlantic Rail Operations Study (MAROps) of the I-95 Corridor Coalition. MAROps recommended \$12 billion in rail capacity improvement projects in a five-state region. When chokepoints are eliminated, increased rail capacity will stimulate growth and accommodate a major shift from long-haul trucking to more energy-efficient freight rail. The region could then realize an annual increase of \$1.3 billion in business output and 9,800 more jobs. The MAROps study confirms the need for national support for major rail improvement projects, especially extremely complicated, multi-billion dollar projects including Baltimore's passenger and freight rail tunnels.

These investments benefit the regional and national economies as well as the environment. Further, investments can be made in areas where additional highway and bridge capacity is too expensive or right-of-way is no longer available.

While states and private freight companies can address many smaller projects on their own or with existing federal formula and loan programs, ongoing and permanent commitment from the federal government is necessary to initiate and complete major projects. We hope to obtain federal funding to help build solutions that will allow the East Coast to handle the tremendous growth in freight anticipated over the next few decades. These investments can also have multimodal benefits. In Maryland, the benefits of passenger or freight projects are often shared among intercity passenger, commuter, and freight rail.

Maryland and many other states are developing the necessary plans and preparations for future opportunities, and we encourage continued and increased federal support to further these efforts. Intermodal and freight connectivity projects must be part of the balanced, flexible and multimodal transportation system our nation needs to compete in a 21st century global economy.

Thank you for your attention to this important subject.

Robert D. Atkinson
President and Founder
Information Technology and Innovation Foundation

Hearing on Funding the Nation's Freight System

Before the Committee on Transportation and Infrastructure
Panel on 21st Century Freight Transportation
United States House of Representatives

October 10, 2013

Chairman Duncan, Ranking Member Nadler and members of the Committee, I appreciate the opportunity to appear before you to discuss the issue of funding the nation's freight system.

I am the president and founder of the Information Technology and Innovation Foundation (ITIF). ITIF is a nonpartisan research and educational institute whose mission is to formulate and promote public policies to advance technological innovation, productivity and competitiveness. In addition, I served as the Chair of the Congressionally-mandated National Surface Transportation Infrastructure Financing Commission, one of two commissions created in the SAFETEA-LU legislation. The Commission released its final report to Congress in 2009. My comments today, however, reflect the view of ITIF and not necessary those of the Commission.

The Commission's charge was to examine financing issues related to our nation's surface transportation, in particular highways and transit. As such, I will not address issues related to air and water transportation and will concentrate on truck freight transportation. Because freight moved by trucks largely shares the same road network with passenger vehicles improving truck freight transportation largely means improving the entire highway and road system generally. However, as discussed below there are some specific improvements that can be made that would target truck travel, including the establishment of truck-only toll lanes/roads. In addition, there are specific steps that can be taken to increase funding from trucks. To do this, in the short-term I recommend that Congress should increase existing truck taxes, including the Heavy Vehicles Use Tax and diesel fuel taxes. In the medium term, I recommend that Congress should require that all heavy trucks move to a vehicle miles traveled tax system (VMT) and that all other taxes paid by trucks be eliminated. Finally, I recommended that Congress authorize a study to assess whether imbalances that have been documented in past studies between the burden that freight-carrying vehicles (especially heavy commercial vehicles) impose on the system and the funds they generate for the HTF still exist.

The Extent of the Problem

As you have heard in other hearings the U.S. surface transportation system faces major challenges. From 1980 to 2006, automobile vehicle miles traveled (VMT) increased 97 percent and truck VMT increased 106 percent, while over the same period the total number of highway lane miles grew only 4.4 percent. From 1982 to 2005, hours of delay per traveler increased 171 percent and total hours of delay increased 425 percent; over this same period, the total cost of congestion increased 383 percent and in the nation's 437 urban areas that cost is now estimated at over \$78 billion per year. As of 2006, over half of total VMT on the overall federal-aid highway system occurred on roads that were in less than good condition, many of which are in rural areas that connect these regions to each other and to urban centers. Over one-quarter of the nation's bridges are structurally deficient or functionally obsolete. From 1994 to 2006, ton-miles of freight moved by truck and rail grew by 31 percent and 52 percent, respectively. And in 2008, the top 25 truck bottlenecks in the United States (primarily at interstate interchanges) accounted for approximately 320 million total vehicle hours of delay and 37 million truck hours of delay each year.

Truck Policy Issues

There are three principal issues involved in improving freight transportation for trucking: 1) how to invest funds in ways that help truck freight movement; 2) how to raise more money for these investments; and 3) how to ensure that trucking pays for the full costs they impose on the system.

Investing in Truck Freight Projects

Because for the most part cars and trucks share a common infrastructure, any comprehensive solution to truck transportation challenges will require a comprehensive solution to our nation's roads and highways. This is because the performance and conditions of the nation's highway and road system are clearly substandard. Improving the entire system will have beneficial impacts for trucks as well as for passenger vehicles.

Having said that, in freight transportation, there is one nearly universal truth: almost every unit of freight reaches its final destination via truck. Yet alleviating freight congestion bottlenecks and addressing the "first mile" or "last mile" linking public to private freight infrastructure are frequently not part of the federal-aid highway system and may even be overlooked by state and local transportation planners. As evidenced by the limited last-mile investments around ports, the general lack of focus on alleviating freight bottlenecks, and the calls by many stakeholders for a "national freight program," many of the nation's freight investment needs do not get adequately addressed through current federal policies and funding programs.

Because any freight-related revenue mechanism becomes an operating cost for the freight industry, visible benefits are necessary to generate the industry support required to make the mechanism politically viable. Thus, dedicating a significant portion of any additional freight-generated funds for freight purposes would improve their political viability. These projects include focusing on areas of freight-oriented congestion generally on the national highway system and on intermodal or border crossing projects, including access to and from ports.

Funding to Support for Freight Projects

There are two ways to pay for increased expenditures that would help truck travel: increasing the amount freight pays or obtaining the funds from other sources. Given the chronic underfunding of surface transportation and the significant federal budget deficit, it makes little sense to obtain funding from other sources. Diverting monies from the general fund either increases the deficit or reduces needed spending on other areas. Taking money from the Highway Trust Fund means that the existing level of underinvestment would only get larger and the conditions and performance of other parts of the system would get worse at a more rapid rate. Increasing other taxes means that these tax revenues cannot be used for other purposes such as debt reduction. Moreover, one key principle the Commission believed should guide surface transportation funding is that the user should pay for the costs they impose on the system. Increasing funding for freight-oriented projects without asking the trucking industry to pay more violates this principle.

With the possible exception of a container tax that could be used to fund an intermodal/border crossing program, the best way to increase funds from freight in the short term is by increasing the fees that the trucking industry currently pays into the federal Highway Trust Fund (HTF) and in the medium term by supporting the expansion of truck-only toll lanes/roads and moving to a vehicle miles traveled (MVT) fee system for trucks.

Increase truck taxes

The trucking industry pays a variety of different taxes to support the HTF. In 2007 about \$3.8 billion was raised through a 12 percent federal sales tax on the retailer's sales price for tractors over 33,000 pounds gross vehicle weight (GVW) and trailers over 26,000 GVW. Another \$1 billion was raised through the federal Heavy Vehicle Use Tax, which requires trucks with a GVW of 55,000 pounds or more to pay an annual tax of \$100, plus \$22 for each 1,000 pounds over 55,000 pounds. This tax is justified in part because it helps to recover some of the system damage costs caused by heavier vehicles. The remaining \$500 million was raised through a federal excise tax on tires, which charges 9.45¢ for each 10 pounds of maximum rated load over 3,500 pounds. In addition, trucks pay a tax on diesel fuel, which raised \$10.1 billion.

To raise funds needed for expanded investment, Congress should double the Heavy Vehicle Use Tax (HVUT) to account for the fact that it has not been increased since 1983 (doubling would recapture lost purchasing power) and then index the HVUT and the excise tax on truck tires to inflation going forward. The fact that this tax has not been increased since 1983 means that the trucking industry pays less in real terms each year, as its revenues increase every year due to inflation. Doubling the tax would raise approximately an additional \$1 billion per year. In addition, if Congress does not want to increase fuel taxes (diesel and gas) it should at least index them to inflation. For not doing this is to have a defacto policy of cutting the taxes road users pay every year.

If Congress does increase and, where relevant, index for inflation the current fees, including the diesel tax, truck tire taxes, and the Heavy Vehicle Use Tax—and does not also increase the taxes paid by passenger vehicles, then a portion of these fees should be available only for freight-related investments, depending on the extent to which trucking does not currently pay its full share of system costs (as discussed below).

Enable truck-only toll lanes/roads

Significantly improving our nation's surface transportation infrastructure requires investment and that, by definition, is not free. Tolling can play a key role in generating the funding to pay for expanded capacity. While broad-based tolling to support new capacity expansion is required to improve mobility, especially if Congress does not increase funding for the Highway Trust Fund, there may be opportunities to develop truck-only toll lanes and/or roads. There are several steps Congress can take. First, Congress can require the federal Department of Transportation to structure the federal highway program so that it provides incentives for states to adopt tolling as a solution. Too many states do not want to support toll-funded projects because of fear of public opposition, despite the fact that toll projects are usually supported by the public after introduction. Lowering the share of federal funding for non-toll projects from its current 90 percent share, while funding the full 90 percent for toll projects would provide a stronger incentive for

states to establish more toll projects. In addition, enabling truck-only toll lanes on the Interstate system will require Congress removing the restriction on tolling the Interstate or at minimum allowing additional capacity on Interstates to be tolled.

Moving to a Truck VMT system

The policy change with the most promise is to move to a vehicle miles traveled system (VMT) for trucking. Because of the significant advantages of a VMT system, coupled with the fact that at some point in the future a significant share of vehicles are likely to be powered by electricity, it is largely only a matter of time before vehicles pay to use roads on the basis of a VMT system. As such, Congress should accelerate the transition to a VMT system by requiring that trucks adopt the system first.

The advantage of starting a national VMT program with trucks are two-fold. First, the scope of the program would be smaller (there are many fewer trucks than cars), making it easier to implement. In addition, the cost of a VMT system for a truck is a much smaller component of overall vehicle cost than for passenger vehicles, and any system could be designed around the technology already installed in the trucks. Second, the benefits from a VMT system for trucks is higher than for cars, in part because the variation of costs imposed by trucks on the system is much higher than it is for passenger vehicles.

At least one nation has adopted a truck VMT system. In 2005, Germany began charging all heavy vehicles (i.e., trucks over 12 tons) for all miles driven on roughly 7,500 miles of motorways throughout the country. Tolls are charged per kilometer based on a satellite Global Positioning System (GPS) for most vehicles, and they vary by axle number (trucks with more axles pay a higher toll since they presumably do more damage to the road)¹ and vehicle emission class (trucks that pollute more pay a higher toll). A manual online payment and on-road enforcement system is available for truckers who do not want to participate in the satellite-based system. Toll payments are in addition to existing motor fuel taxes and other fees; 50 percent of these revenues are spent on roads, 38 percent on rail, and 12 percent on waterways. In 2009, average tolls were 12.4 euro-cents per kilometer and are adjusted based on vehicle emission characteristics. Initial findings from the pricing system indicate that the shift to more direct user charges has led to increased efficiency in Germany's heavy vehicle industry and provided benefits to the German economy as a whole.²

A truck VMT system could be designed in the following way. Trucks over a certain size and weight would be required to have an on-board unit installed (in new trucks such equipment would be mandatory) that would allow the unit to identify where it is, the time of day and day of week, and the charge for the segment of roadway the truck is traveling on. In addition, trucks would have axle weight sensors installed which would measure the weight of the truck per axle. Trucks would pay based on a number of different factors: the truck weight (heavier weights would pay more); emissions per mile ("dirtier" trucks would pay more); type of road (trucks would pay more to travel on roads not designed for heavy trucks and less on roads designed for them), and overall miles. In addition, trucks could be charged on the basis of congestion, with higher prices for driving on roads that are normally congested (e.g. urban freeways at rush hour periods). The system could be set up to collect and remit both state and federal taxes.

There are a number of advantages to a VMT system over the current way trucks pay federal taxes. First, taxes would be more carefully related to costs imposed. Trucks that do more damage to roadways, add to

congestion and pollute more would pay more. This in turn would increase efficiency by reducing payment damage, encouraging trucks to drive with fuller loads, and to pollute less. In addition, a truck VMT system would make it easier to implement truck-only toll lanes/roads as the payment system would be already in existence. And anonymized data on truck travel would help to identify when and where truck bottlenecks exist and to help measure their severity.

The trucking industry, however, has testified before this Committee that it opposes a truck-only VMT system. It provides several reasons for its position which are examined here.

One objection is that a VMT would be used to increase the taxes paid by trucking. However, the key thing to understand about a VMT system is that it can be used to generate less, the same, or more revenue; just as existing tax mechanisms can by lowering, raising or keep the tax rates the same. How taxes and fees are collected is a completely separate matter from the amount that are collected.

A second concern is that a VMT system (like tolling) could cause diversion, leading trucks to travel on roads other than the most efficient for them. In fact, a truck VMT system would have the exact opposite effect. By pricing the segments of roads based on the total cost a truck imposes on it, trucks would have a stronger incentive to make the most societally efficient route choices. Moreover, a VMT system can be easily structured so as to not double-charge trucks that are driving on tolled roads or bridges. The on-board computer would be able to download a pricing data base that would tell it when the truck is driving on a toll road and the truck would be charged only the toll, and not the VMT fee on top.

A third concern is that a VMT system would lead to trucks being subject to double taxation. However, any system should be designed (as the Oregon Department of Transportation VMT pilot program was) so as to not charge a diesel tax when a VMT-enabled truck buys fuel. Likewise, the tire tax, HVUT and vehicle tax would not be charged on trucks equipped with a VMT system.

A fourth concern is that there is no need to move to a VMT system until there is significant penetration of alternative fuel (e.g., electric vehicles). But this assumes that the principal purpose of a VMT system is simply to raise revenues. In fact, the purpose of a VMT system, whether it is for passenger vehicles or truck is not just to raise money but to charge fees that match that actual costs imposed on the system. Moreover, moving first to a truck VMT system it will be easier to later transition to a passenger VMT system, which will take more time. And during this time the growth of electric vehicles will surely increase.

A fifth concern is around privacy. To be sure, there is a very real concern among policy makers and the general public that a road pricing system that charges based on when and where individuals travel inherently threatens privacy. But in fact, the privacy concerns are largely based on a misperception of how these systems actually work. Any VMT design centers on the use of an on-board unit (one in each vehicle) that would contain a GPS receiver that receives satellite signals enabling it to calculate vehicle location in real time and a computer that calculates the associated VMT charge. The key point is that the satellite signal is only a one-way signal "telling" the car receiver where it is, and therefore outside the vehicle there is no tracking of where individuals travel. In essence, this receiving function of a VMT system would function like the GPS devices that millions of Americans have already installed in their cars without worry of privacy loss.

The more critical question related to privacy is what happens to the travel information that is stored on the on-board unit. Such a system can and should be designed so that the information transmitted to the administering agency would only relate to the bulk charges due and would not include specific information about trip origins and destinations, routes, or time of travel. In other words, the administering agency would only receive information that a particular vehicle owes a particular amount each month. It should be noted that such a system would provide considerably more privacy than other information technology systems in our society, such as credit card and cell phone systems, where the relevant company knows not just how much a person owes but where the individual made purchases and what phone numbers were called (and, in fact, approximately where the person is when making a call). Moreover, information should be transferred from the vehicle to the administrative agency (or gas pump) in secure ways—for example, by encrypting the data transfer.

A sixth concern relates to pricing flexibility, with the industry asserting that it does not have the ability to absorb increased costs. As noted above any system can be structured to be revenue neutral should Congress decide to do this. But even if the overall revenues from trucking are the same, some segments of the industry or kinds of trucks could pay more (while others pay less). To ensure that charges are appropriate and encourage efficient use, prices must be established through a sound analytical process that considers the findings from cost allocation studies as well as broader policy considerations. But some representatives of the freight industry argue that they cannot always pass on added costs. While the industry may not be able to pass along all the costs of targeted tolls to customers in the short run, especially under weak economic conditions, truckers should be able to do so in the moderate and long term if the fees are stable or changed with sufficient advance notice. Indeed, a Transport Research Board report argued that these costs could be passed on to customers,³ and a study of the German heavy-vehicle toll system suggested that, overall, the trucking industry was able to do so.⁴ In other words, stable, nondiscriminatory pricing, possibly supported by national information systems that let truckers and shippers know the likely costs of tolls for any particular route, should not adversely affect the trucking industry as a whole.

Moreover, per-mile pricing would create incentives to combine shipments in ways that minimize trip mileage. For example, the German heavy-vehicle comprehensive road pricing system has led to a 10 percent drop in empty trucks on long-distance trips, a 7 percent increase in containers moved by train, and a 6 percent increase in the purchase of truck tractors that emit less pollution.⁵

A final concern expressed is over administrative costs. It is likely that any VMT system would have higher costs of administration than the current truck tax system. However, VMT system costs are not likely to be significantly higher, and more importantly, as discussed above, a VMT system would likely generate significantly greater benefits. As an analogy, the administrative costs of credit card systems are higher than that associated with cash, but most Americans use credit cards and most merchants accept them because of the significant benefits they provide.

A VMT pricing system will have three major cost components. First, there will be the capital investment costs to enable the implementing agency to administer VMT charges. These will include costs for items such as hardware, system development, and start-up. These costs will likely be large—preliminary research conducted for U.S. DOT estimated initial agency capital costs for a comprehensive (passenger

vehicle and truck VMT system) in the range of \$10 billion—but they would also likely be amortized over 20 or more years and could be lower due to declining information technology costs.⁶

Second, there is the cost associated with installing technology (e.g., GPS receivers/VMT charge calculators) in the vehicle fleet, which is currently difficult to assess. Most trucks already come equipped with GPS receivers, meaning that the costs of installing a system (VMT charge calculator) would be less. If done as standalone units that are retrofitted into existing vehicles, the cost would be relatively high. But if the necessary hardware were part of a broader vehicle technology platform that is installed in vehicles as original equipment on a large scale, the incremental cost to enable VMT pricing, on an individual vehicle basis, could be small.

The third cost component of comprehensive pricing will be the recurring cost to administer it. Preliminary U.S. DOT research estimates that administrative costs for a national system of road pricing using GPS technology would be 1.7 percent of estimated revenues (equivalent to the cost of processing credit card transactions). Although this is more than the cost of administering the current motor fuel taxes, estimated at 1.01 percent of revenues, it would still represent a comparatively inexpensive fee to administer.⁷ One study of moving to a truck VMT system for New York State estimated that the costs of the program would be higher than the gas tax but “significantly less than the costs to collect other transportation fees including registration fees and tolls, and less than the costs for the German truck toll system.”⁸ Moreover, as technology and experience with pricing improves, administrative costs are likely to fall.

The Oregon experiment provides another data point to inform this discussion. Under the pilot program, vehicles were retrofitted with on-board equipment that could identify where and when the vehicle was traveling, record the mileage by category, and communicate this information to the systems of participating gas stations when the vehicle was at the pump. These systems then made the appropriate adjustments to the driver’s bill to account for VMT taxes. The annual cost to administer a similar system, deployed on a comprehensive statewide basis, is estimated to be \$2 million, or about twice what it now costs Oregon to collect motor fuel taxes.⁹

Ensuring That Trucking Pays its Full Costs

There appears to be some evidence that truck freight is not paying its fair share, not just on an overall basis but for certain trucks and on certain routes. As the DOT found in its last cost allocation study:

As a class single [truck] units will pay less than their share of highway costs, but the lightest single units will pay more than their share of highway costs. Combination trucks as a group will pay 90 percent of their highway cost responsibility in 2000, but like single units, there is large variation depending on the weight of the vehicle. Combination trucks registered at less than 50,000 pounds will pay 60 percent more in user fees than their share of highway costs while combinations registered over 80,000 pounds will pay on average only about 60 percent of their highway cost responsibility.¹⁰

If this is still the case, it suggests that trucking enjoys a defacto government subsidy of about 10 percent of total highway cost imposed, especially when compared to the freight rail industry which largely pays for its facilities and operations through its own revenue. As such, it suggests that increases in truck fee payments, especially if structured through VMT system which can more accurately levy fees that match costs imposed, would not only increase revenues for the HTF, but would increase freight system efficiency.

This is especially important in the context of freight rail and trucking competition. If trucks are not paying their full costs, then rail is at an unfair competitive disadvantage. But rather than address the problem of subsidy with adding yet another subsidy (e.g. a tax incentive for rail investment) a better policy would be to reduce the subsidy to trucking by requiring them pay their full costs. As such, the Commission recommended that Congress authorize a study to assess whether imbalances that have been documented in past studies between the burden that freight-carrying vehicles (especially heavy commercial vehicles) impose on the system and the funds they generate for the HTF still exist.

Endnotes:

1. Ideally any vehicle miles traveled system for heavy vehicles would charge by axle weight, since this is the factor most correlated with pavement damage. Real-time axle weight sensors have been developed, but they would have to be fully tested before widespread deployment would be possible.
2. Claus Dolla and Axel Schaffe, "Economic Impact of the Introduction of the German HGV Toll System," *Transport Policy*, vol. 14, issue 1, January 2007.
3. Transportation Research Board, *Paying Our Way: Estimating Marginal Social Costs of Freight Transportation* (Washington, DC: 1996).
4. Dolla and Schaffe, *op. cit.* note 20.
5. Presentation to the National Surface Transportation Infrastructure Financing Commission by the German Federal Ministry of Transport, Building and Urban Affairs, September 2007.
6. Based on preliminary analysis provided by the U.S. DOT.
7. *Ibid.*
8. "A Practical Approach to Truck VMT Fees Including Some Financial Implications and Possible Impacts on Traffic Congestion." Delcan Corporation, Calmar Telematics, and Greater Buffalo Niagara Regional Transportation Council, April 2011.
9. Based on supplemental information provided by the Oregon Department of Transportation.
10. "Executive Summary." Federal Highway Administration, 1997. <http://www.fhwa.dot.gov/policy/hcas/final/execsum.htm>.

Testimony of Jack Schenendorf
Before the
Panel on 21st Century Freight Transportation
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Thank you, Chairman Duncan, Ranking Member Nadler, and other members of the Committee, for giving me the opportunity to appear before the Panel on 21st Century Freight Transportation to testify on “Funding the Nation’s Freight System.” I commend Chairman Shuster and Ranking Member Rahall for creating this Panel to examine the current state of freight transportation in the United States and how improving freight transportation can strengthen the United States economy.

I am Jack Schenendorf. I am Of Counsel at Covington & Burling LLP in Washington, D.C. Prior to joining Covington, I served on the staff of this Committee for 25 years. I also served as Vice Chair of the National Surface Transportation Policy and Revenue Study Commission (hereinafter referred to as the “Policy and Revenue Study Commission”) from 2005 until 2008.

The views I express here today are my own. They do not necessarily reflect the official position or views of Covington or the Policy and Revenue Study Commission.

At a time when Congress needs to renew its investment in America’s transportation infrastructure, it is a special honor to appear before this distinguished Committee. For almost 60 years ago, it was the leaders of this Committee, in cooperation with its Senate counterpart committee and President Eisenhower, who had the vision, the wisdom, and the political will to make a major investment in America’s future.

By authorizing the Interstate Highway System, by establishing the Highway Trust Fund to fund construction of it, and by almost tripling the federal motor fuels tax to pay for it, Congress took an action that was instrumental in making America strong and in developing the world’s largest economy and most mobile society.

As President Eisenhower stated:

“Our unity as a nation is sustained by free communication of thought and by easy transportation of people and goods...Together the unifying forces of our communication and transportation systems are dynamic elements in the very name we bear—United States. Without them, we would be a mere alliance of many separate parts.”

The Interstate Highway System changed travel in America. It provided greater capacity and made long-distance travel practicable. It made travel faster, safer, and less expensive

on a per mile basis. It has become one of the foundations of America's competitive success in the global marketplace. And it made America stronger and more secure. And as is often the case with major transportation initiatives, Democrats and Republicans came together to put America's interests first. There are no Republican roads or Democratic bridges. There are only American roads and American bridges.

If there was ever a time for Congress and the President, for Republicans and Democrats, to come together to take a similarly daring look at our nation transportation network, it is now. The Nation faces challenges similar to those of the Eisenhower era. Due to the global economy, however, the imperative for change is even stronger.

Our national transportation network is at a crossroads. It is aging, and it is running out of capacity. It is time for new leadership to step up with a vision for the next 50 years that will ensure U.S. prosperity and global preeminence for generations to come.

MAP-21 took an important first step by modernizing our Nation's surface transportation policies for the 21st century. The leaders of this Committee are to be commended for that effort.

But reform alone is not enough. Increased investment is critical as well. My testimony today will focus on what MAP-21 left undone—ensuring an adequate level of investment in our national surface transportation network, with a focus on the national freight system.

Investing in the Nation's Freight System

The safe and efficient movement of freight throughout the Nation is critical. Our economy depends on it. Our international competitiveness depends on it. The ability of our businesses to grow and create private sector jobs depends on it. Our way of life depends on it. Our ability to access jobs depends on it. From the clothes Americans wear to the cars they drive to the food they eat, the freight transportation system impacts all aspects of everyday life.

Freight does not move on one mode of transportation. It moves on ocean vessels, highways, railroads, air carriers, inland waterways, ports, and pipelines. Because freight movement is multi-modal in nature, it is important to consider the system as a whole. Bottlenecks arising at any point on the system can seriously impede freight mobility and drive up the cost of the goods impacted.

For this reason, improving the efficiency and safe flow of freight across all modes of transportation is critical to the health of the United States economy and the future of the Nation's global competitiveness. Financing these improvements has proven to be a challenge.

My testimony will address three topics: (1) Investing in the National Network, (2) Specific Freight Investment Options, and (3) A New National Approach.

Investing in the National Network

Part of the solution is modernizing the national transportation network. Freight transportation will be a principal beneficiary of the increased investment necessary to keep our existing national transportation network in good condition and to provide the additional capacity needed to support a growing population and economy. Appendix A discusses these options in detail.

Federal investment in a nationwide freight system is appropriate. Interstate commerce is the cornerstone defining the Federal role in transportation. The Federal interest in promoting efficient interstate and international flows of goods and services has motivated it to support waterway, port, road, canal, and railroad building since the earliest days of the Nation. Indeed, the development of the United States cannot be understood without knowledge of the Federal role in promoting and funding freight transportation infrastructure.

Without systemic improvements to the national transportation network, freight transportation will become less efficient and reliable, hampering the ability of American businesses to compete in the global marketplace. It's time to act.

Specific Freight Funding Options

Given the strong Federal interest in freight movement, Congress will also need to make available a variety of funding sources to meet specific freight investment needs. A full range of financing options will be needed.

The Policy and Revenue Study Commission recommended a number of freight funding/financing options for Congress to consider, including innovative financing mechanisms—TIFIA, infrastructure banks, public-private partnerships, and the like. These are set forth in Appendix B, along with a summary analysis of each option.

Congress should create an accountable and transparent programmatic linkage between an assessed freight fee and the selection and funding of projects that facilitate increasing volumes of freight. The payers of such a fee must realize the benefit of improved freight flows resulting from projects funded by the freight program. Such a fee should be designed to ensure that commerce is not burdened by local and state proliferation of such fees; no mode of transportation or port of entry is disadvantaged; and the ultimate consumer bears the cost.

A New National Approach

If the current political climate makes it impossible to increase existing revenue sources, then we must develop alternative mechanisms to generate the necessary revenue. Innovative financing mechanisms—TIFIA, infrastructure banks, public-private partnerships, and the like—can help, but they are not the solution. While useful on certain individual projects, they will not generate enough revenue for the system-wide, sustained investment that is needed over the long term.

One way to move forward would be to employ two *targeted user fees* to supplement, not replace, existing Federal transportation revenue sources. Congress could establish a **Federal Interstate User Fee** to modernize the Interstate Highway System and a **Federal Motor Carrier User Fee** to improve freight facilities that benefit the freight industry. This approach is derived from a paper written by Elizabeth Bell, an associate at Covington, and myself. The paper is attached as Appendix C.

Here's how they would work:

- *Federal Interstate User Fee*
 - All vehicles using the Interstate Highway System would pay a user fee. The fee would be collected through an “EZ Pass”-like system, which would be entirely electronic. There would be no tollbooths.
 - All of the revenues generated by the fee would be deposited in a special account in the Highway Trust Fund. The revenues would be used exclusively to restore the Interstate Highway System to a state of good repair and to expand and modernize it to meet the challenges of the 21st century.
 - The fee structure would be set annually, by an independent group of experts, at the level necessary to reimburse the states in accordance with policies established by Congress for the federal share of these improvements. No higher, no lower. The fees would *not* be designed to control the level of traffic or to “price out” drivers from using the Interstate.
 - This user fee would restore the Interstate Highway System to being the crown jewel of the U.S. surface transportation network and the envy of the world. This approach could also be used on other controlled access segments on the National Highway System that connect to the Interstate Highway System.

- *Federal Motor Carrier User Fee*
 - This fee would be imposed on commercial trucks' usage of all roads and would be collected through GPS-like systems currently being used by many trucking companies.
 - Importantly, trucks would *not* be double-charged for miles traveled on the Interstate; rather, those miles would be recorded through the Federal Interstate User Fee program.
 - All of the revenues generated by this fee would be deposited in a special account in the Highway Trust Fund and would be used exclusively for freight-related improvements.
 - The same independent entity discussed above would set the fee structure at the level necessary to reimburse the states in accordance with policies established by Congress for the Federal share of these freight improvements. No higher, no lower.
 - This user fee would play a critical role in improving the movement of freight, thereby helping to make U.S. businesses more competitive in today's global marketplace.

All Federal-Aid Highways would benefit by this approach. Federal-aid eligible highways—including the Interstate System—constitute about 985,000 miles of road out of a U.S. total of 4 million miles. This 25% of our roads carries 85% of all vehicle miles traveled. Existing Highway Trust Fund revenues would no longer have to be used on Interstate projects since the new Federal Interstate User Fee would fund all Interstate projects. Similarly, freight projects funded by the Federal Motor Carrier User Fee would no longer have to be funded from existing HTF revenues.

Together, these two programs would take pressure off of the HTF and allow its existing revenues to be used to upgrade the remaining Federal-aid highways, including the major non-Interstate highways on the National Highway System. To help in meeting these needs, Congress should, if possible, index the existing motor fuel taxes for inflation.

This approach would have a number of **economic and policy advantages**. For example:

No Tax Increase. The FIUF and the FMCUF are user fees. They would allow Congress to increase transportation investment without raising motor fuel or diesel fuel taxes.

Fair To Users. By dedicating all of the revenues generated by the user fees to benefit the users preserving and modernizing the Interstate System or financing freight-related projects, these mechanisms would establish a strong link between the user and purpose for which the fees are used. Moreover, the fees would be set at the *minimum* level necessary to pay for

the improvements. No debt service payments. No diversion. No demand management fees to “price out” drivers from using the Interstate. And since the FIUF and FMCUF revenues would be supporting a pay-as-you-go system, users would only pay for work and improvements as they are completed.

Differs From Tolling. This would be a pay-as-you-go mechanism. No debt service payments typically associated with tolling.

National Policy. The Interstate Highway System is a national system governed by national policies and standards. A FIUF is consistent with that by establishing a national user fee mechanism for the entire Interstate, although it is envisioned that fees would be set at different rates in different corridors to account for different costs associated with repair and modernization. This will help to ensure that the system does not become balkanized by disparate state and local pricing policies.

Designed to Gain Public Support. By linking the payment of the fee to the use of the revenues, people would know what they were getting for their money. This should increase public acceptance of the fee. In addition, it would help to depoliticize and streamline the investment and improvement process, since an independent entity would set the fee schedule in a transparent manner.

Fair to Rural Areas. Fees could be set at different rates in different geographic areas to account for different costs associated with repair and modernization. For example, the fee on less-congested portions of the Interstate might be less than the fee on highly-congested portions. The fees would **not**, however, be designed to control the level of traffic or to “price out” drivers from using the Interstate.

No Increase In The Deficit Or Debt. Revenues generated by the user fees would pay the full cost of the increased federal investment. Therefore, increased investment would *not* increase the federal deficit or the federal debt. In fact, over the long term it would help reduce the deficit and debt by promoting greater economic growth.

Modernizes Federal Financing Mechanisms. The FIUF and the FMCUF would be a much-needed step towards post-gas tax revenue strategies.

Improves The Entire Federal-Aid Highway Network. The revenue generated by the FIUF would pay for preservation and modernization of the Interstate Highway System. The FMCUF-generated revenue would be used to pay for major freight improvements. This would free up existing HTF resources to pay for improvements to the non-Interstate portion of the National Highway System and the remaining Federal-aid highways. The *entire* national network would benefit.

Improves Competitiveness and Creates Jobs. Modernizing our national transportation network will make U.S. businesses more competitive. Over

the long term, this will strengthen the U.S. economy and lead to greater private sector job growth. Another benefit would accrue in the short-term—greater economic activity and considerable job growth in the construction and construction-related industries.

Conclusion

The national surface transportation network is a crucial and dangerously neglected driver of our economy. To put it bluntly, failure to adequately invest in the preservation and modernization of this network is not an option. As a country, we cannot avoid making the choice to address this problem—and inaction is the wrong choice. We must find a way to raise additional transportation-related revenue. It's time to act.

APPENDIX A

THE NEED FOR INCREASED TRANSPORTATION INVESTMENT
AND WAYS TO PAY FOR SUCH INVESTMENT**It's Time To Act**

During the House Floor debate on the Fiscal Year 2012 budget, one member said of the 2008 financial crisis: "Let me ask you this"—

What if your President and your member of Congress saw it coming? What if they knew why it was happening, when it was going to happen, and more importantly they knew what to do to stop it and they had time to stop it but they didn't, because of politics? . . . We cannot avoid this choice. To govern is to choose. We are making a choice even if we don't act. And that's the wrong choice.

These remarks could apply equally, if not more so, to the impending transportation crisis facing the United States.

For decades, the United States has underinvested in the national transportation network. As a result, the aging, congested network is in need of repair and does not have adequate capacity to accommodate future population and economic growth.

Should this pattern of government inaction continue, our economy, which depends on the efficient and safe transportation of goods and people, will suffer as our transportation network becomes less and less efficient. U.S. businesses will become less competitive in the global marketplace. U.S. companies will have no choice but to locate plants in other countries where transportation services are adequate. U.S. private sector jobs will be lost. And the American people will suffer, in terms of lost job opportunities, longer and more stressful commutes, and a lower standard of living.

This transportation crisis is predictable. We can see it coming. We know why it is happening. We know when it is going to happen, and we have time to stop it. Most importantly, we know what to do to stop it – and, in fact, revenue-raising solutions to maintain and improve our national transportation network can be implemented almost immediately. The problem has been politics. There has not been the political will to raise the user fees that support federal transportation investment, even though study after study, and report after report, has recommended doing so.

To put it bluntly, failure to adequately fund the maintenance and expansion of our national transportation network should not be an option. As a country, we cannot avoid making the choice to address this problem—and inaction is the wrong choice. It is time to act.

Investing in America's Future

In recent decades, the United States has underinvested in the national surface transportation network. As a result, the aging, congested network is in need of repair and does not have adequate capacity to accommodate future population and economic growth.

According to estimates of the Policy and Revenue Study Commission, we need to invest at least \$225 billion annually from all sources (federal, state, local, and private sector) for the next 50 years to upgrade our existing system to a state of good repair and create a more advanced surface transportation system to sustain and ensure our international competitiveness and strong economic growth for our families. We are spending less than 40 percent of this amount today.

Even if the Commission's estimates were off by 25 percent, we would nevertheless still need a substantial increase in investment from all sources, including the federal government.

These findings should not come as a surprise. Commission after Commission, study after study, and report after report have identified serious deficiencies in the Nation's surface transportation network—aging and deteriorating infrastructure and reduced operational efficiency of key assets.

Action, Inaction, and Economic Growth

The increased investment required to maintain and improve our highways is not only needed for the convenience and the safety of individual drivers—although these are important concerns. A deteriorating public highway system also powerfully impacts the well being of the U.S. economy.

Our national highway network is a critical driver of our national economy. It is a rare example of a physical government infrastructure that reaches *every* American – if not individual drivers, then individuals who consume goods and services that could only be provided thanks to state-to-state transportation. It increases productivity and lowers transaction costs. It has been instrumental in enhancing mobility, and thus providing access to jobs, education, and other opportunities that have increased the quality of life in the United States. If no action is taken—that is, if no investments are made to maintain and improve the highway system to accommodate greater demand for access to goods and services—access to these benefits will be limited.

A recent report by the McKinsey Global Institute shows just how far behind the U.S. has fallen in terms of building a 21st-century infrastructure. Compared to the 139 countries examined by the World Economic Forum's *Global Competitiveness Report 2010-2011*, the U.S. ranks 23rd on overall quality of infrastructure, behind countries such as France, Germany, Canada, and Japan. This represents a precipitous drop over the past decade: in 2000, the U.S. ranked 7th.

Worse still, our inadequate infrastructure imposes unnecessary additional costs on the U.S. economy and American taxpayers. The McKinsey report goes on to estimate that increasing road congestion in the United States already costs more \$85 billion year. On a per traveler basis, this cost ranges from \$1,084 in very large urban areas to \$384 in suburban and rural locations.

At a time of increasing global competition and uncertain economic growth, the United States can't afford to undermine the benefits that a well-functioning transportation system provides or allow inaction to impose additional costs on U.S. travelers. U.S. jobs, the U.S. economy, and this country's position as a global economic leader are at stake.

To put it bluntly, failure to adequately fund the maintenance and expansion of this system should not be an option. As a country, we can't avoid making the choice to address this problem—and inaction is the wrong choice.

Highway Trust Fund Solvency

In 1956, the Congress established the Highway Trust Fund (“HTF”) to help build the Interstate Highway System while continuing to invest in the national surface transportation network. Created by the Highway Revenue Act of 1956, the HTF is a financing mechanism that accounts for tax receipts dedicated for expenditure on highways and transit needs. Currently, the HTF houses two accounts: one for the highway program, and one for public transit.

Since its inception, the HTF has been funded by taxes on motor fuels and vehicles. By linking transportation-related taxes with transportation-related funding, the HTF ensures that the costs of the federal highway system are primarily borne by its users. Through the ample revenue they provided to the HTF, the Eisenhower generation helped build not only a state-of-the-art highway system, but also one that included extra capacity for generations of drivers to come.

How did we get from having one of the world's preeminent transportation systems to an overburdened system that is steadily falling into a state of disrepair? The heart of the problem is this: while we have been benefiting from the expenditures of the generation that helped to build the Interstate Highway System, we have failed to make adequate federal investments of our own.

Though national surface transportation expenditures have increased over time, they have not kept pace with national growth. Expenditures on highway maintenance and improvements are shared by local, state, and federal governments. When growth in vehicle miles traveled is taken into account, real highway spending across all these levels of government has fallen by nearly 50 percent since the creation of the HTF. The federal contribution to highway spending, in particular, has remained fairly constant, falling behind rather than responding to additional infrastructure demand.

Currently, about 90 percent of HTF revenue is derived from excise taxes on motor fuels. These taxes are set at 18.4 cents per gallon of gasoline and 24.4 cents per gallon of diesel, but are not indexed for inflation and have not been raised for almost two decades. The tax has lost about 33 percent of its purchase power since it was last raised.

Moreover, as a result of the economic downturn, declining real receipts, and more efficient vehicles, the HTF is in a solvency crisis. Since, by law, the HTF cannot incur a negative balance, Congress has been forced to authorize emergency funding infusions totaling about \$54 billion since 2008. Yet short-term and long-term shortfalls still loom – and investment needs continue to grow.

What the HTF truly needs is a significant and immediate increase in revenues. The current level of funding is not adequate to maintain the operational performance and physical condition of the highway system.

According to CBO, the HTF needs additional annual revenues equivalent to a 10-cent gas tax increase just to maintain current, inadequate levels of investment.

The Policy and Revenue Study Commission concluded that the HTF needs additional annual revenues equivalent to a 25- to 40-cent gas tax increase (5 to 8 cent increase annually for 5 years) to start meeting the future needs of our national surface transportation network.

The question is: what is the best and fairest way to raise the additional revenues needed?

Evaluating Appropriate Solutions

Public policy groups and government commissions have proposed dozens of solutions with respect to raising HTF revenue. In evaluating these solutions, three principles should be considered. All three of these principles are important for creating revenue-raising mechanisms that are efficient, viable, and best reflect the scope of the federal highway system and its role in the U.S. economy.

First, proposed solutions should approximate a true user fee as closely as possible. The HTF's major revenue stream – motor fuel taxes – are an example of a revenue-raising solution that attempts to place the responsibility for maintaining and improving the highway system on its actual users. Revenue options that hew as closely as possible to user fees are fairer and more economically efficient, causing the individuals who impose costs on the system (for example, by increasing the need for repairs through a high level of use) to pay those costs, rather than obligating non-users to shoulder the burden.

Second, the solutions should be relatively easy to implement. The problem of federal highway funding requires an urgent response. Moreover, ease of implementation usually—though not always—translates into less costly and more politically viable programs.

The third and most important principle is the need for a truly national investment policy. Highway Account funding can be used on the federal-aid eligible highways that make up about 25 percent of the nation's 4 million miles of roads but carry more than 85 percent of the vehicle miles traveled annually.

Most of the Highway Account funding is focused on the 233,000-mile National Highway System (which includes the Interstate Highway System). It makes up just 5.7 percent of the Nation's road mileage but carries 55 percent of the of the vehicle miles traveled annually. Significant investment in the National Highway System (NHS) is needed to:

- Restore the Interstate Highway System, which is reaching 40 to 50 years of age, to a state of good repair through an aggressive program of preservation, including projects to—
 - Substantially rehabilitate, or in some cases replace, many of its 55,000 bridges; and
 - Reconstruct major portions of its 210,000 lane miles.
- Improve system performance by applying the full range of intelligent transportation systems (e.g., navigation systems, traffic signal control systems, real-time parking guidance and notification systems, and vehicle detection and notification systems) and aggressive systems of operation and management strategies.
- Replace aging interchanges that have become major bottlenecks with interchanges that have wider lanes and geometric designs to allow higher volumes of cars and trucks to exit and merge more safely at higher speeds.
- Reduce congestion by adding additional lane miles to urban and rural Interstates, where appropriate.
- Expand the Interstate Highway System, where appropriate, to provide connections to new and emerging centers of population and commerce.
- Preserve and modernize the non-Interstate National Highway System, including important corridors such as the Avenue of the Saints, Transamerica Corridor, Hoosier Heartland Industrial Corridor, Great Lakes/Mid-Atlantic Corridor, Heartland Expressway, U.S. 395 (CA, NV, OR, WA), CANAMEX, Ports-to-Plains, Wisconsin Development Corridor, Capital Gateway Corridor, East-West Corridor, SPIRIT Corridor, Theodore Roosevelt Expressway, and Camino Real Corridor, among others.
- Address urban congestion through operational improvements and, where necessary, increased NHS capacity.
- Improve rural NHS highways to keep U.S. agriculture competitive, especially lower-classification Federal-aid roads that link farm and local roads with the National Highway System.
- Upgrade narrow, two-lane, rural NHS roads that cannot safely carry the kind of trucks now moving across the United States to support the renewable fuels industry, wind farm energy production, and the development of other energy resources.
- Improve rural NHS highways to handle the growth in international and domestic trade moving through the heartland of America.
- Preserve and upgrade, where necessary, the Strategic Highway Network (STRAHNET), a network of highways that are important to the United States' strategic defense policy and

that provide defense access, continuity, and emergency capabilities for defense purposes. STRAHNET Connectors—highways that provide access between major military installations and ports—would also be maintained and upgraded where appropriate.

- Provide NHS connectivity between urban and rural America, and address seasonal congestion and bottlenecks associated with interstate tourism, especially at national parks.
- Provide adequate NHS access to new and emerging cities and towns so that our highway system will be the unifying network that President Eisenhower envisioned.

Modernizing federal-aid eligible highways, especially the major highways that make up the National Highway System, will require significant, sustained investment over a considerable period of time. The HTF is uniquely suited for this type of investment.

Previous reports on the issue of highway funding often raise solutions such as credit enhancement programs, bonding, state-level tolling, national or state infrastructure banks, and private-public partnerships. These options, while worthwhile and clearly part of the overall solution, are not the complete solution. Such programs will not generate enough revenue for the system-wide, sustained investment that is needed over the long term. Moreover, they tend to reside at the local- and even project-level. State and local governments are subject to different and more narrowly-focused political pressures than the federal government. If funding fixes were aimed only at changes on the state- and local-level, there is a danger that the transportation system would become balkanized—to the detriment of the national network.

The focus in creating the federal-aid highway system was the concept of a country unified by a nationwide infrastructure. In today's highly competitive global economy, this vision is more important than ever. Only a strong federal role will help realize this unity, allowing for systemic improvements in both high-traffic and low-traffic states. There is also the issue of fairness. A very costly project in State A may be needed because of traffic destined for other distant states. It is not fair to ask the citizens of State A to pay the whole tab for a project that benefits millions of people across the network. The costs of modernizing the national network should be borne by all of the users of the network.

This approach is consistent with federal role in transportation throughout our nation's history. From President Washington's support for federal construction, maintenance and repair of existing and future lighthouses, buoys and public piers for rendering navigation "easy and safe"; to Henry Clay's support for capital improvements; to President Lincoln's support for the transcontinental railroad; to President Theodore Roosevelt's support of the Panama Canal; to President Franklin Roosevelt's support for a cross-country high level road system; to President Eisenhower's support of the Interstate Highway System and the Highway Trust Fund; and to President Reagan's support for increased motor fuel user fees to preserve and modernize the federal-aid highway network, the federal government has been instrumental in the development of our Nation's strong surface transportation network.

Thus, the solutions discussed below focus on increasing the receipts of the HTF for countrywide distribution.

Possible Solutions

Before discussing a number of possible solutions, I want to bring to your attention the options that the Policy and Revenue Study Commission evaluated and the results of the Commission's analysis. These are set forth in Appendix B. The color chart can be particularly helpful in providing an overview of the merits of each option.

In my testimony, I want to focus on the following options:

Future Replacement for Current Motor Fuel Taxes

It is imperative to find a long-term replacement for motor fuel taxes as soon as possible. There is a growing recognition that supplies of conventional petroleum-based fuels will get tighter in the future, leading to the possibility of higher fuel prices, greater disparities in vehicle fuel economy, increasing use of alternative fuels, and greater concern about energy security. However, many technical and institutional questions remain to be answered about replacement fees, especially with respect to mileage-based fees like VMT. The replacement for the motor fuel tax will not likely be available in the near to medium term, so it cannot be relied on to serve as a source of HTF revenues for in the near future. It is important, however, to aggressively conduct research in this area. Pilot projects should be encouraged. We must make transitioning to a replacement fee a priority.

Increased Motor Fuel and Diesel Fuel Taxes

One obvious solution that meets the three criteria outlined in the previous section is an increase in the motor fuel and diesel fuel excise taxes and indexing them to inflation.

As mentioned above, motor fuel taxes on diesel and gas constitute about 90 percent of HTF receipts. These taxes are charged at a flat rate per gallon that is set by Congress. The current tax rates on motor fuels are 18.4 cents per gallon for gasoline and 24.4 cents per gallon for diesel fuel. An increase in these rates is long overdue; Congress has not changed the rates since 1993, and because they are not indexed for inflation, their efficacy as a revenue-raising tool has diminished substantially over the past 18 years. Had the federal gas tax rate of 18.4 cents per gallon been indexed using the Consumer Price Index for all Urban Consumers beginning in 1993, the tax rate in 2008—the year of the HTF's first emergency infusion—would be 27.5 cents per gallon.

Because the motor fuel tax is already in place as the primary funder of the HTF, implementation of a tax increase or an indexing solution is straightforward and could be easily accomplished, at least technically. Moreover, the motor fuel tax approximately places the cost of maintaining and improving the highway system on users of that system. Although the tax is collected at the fuel terminal level, it is passed on to drivers at the pump.

If Congress does not increase the current motor and diesel fuel taxes, it should, nevertheless, consider indexing them to inflation. This would at least preserve the current purchasing power of those taxes and be a part of the solution to the transportation investment crisis.

It should be noted that the Policy and Revenue Study Commission recommended a 5- to 8-cent per gallon increase in motor fuel and diesel fuel taxes annually for a five-year period. It also recommended indexing. This would result in a total increase of 25- to 40-cents per gallon, plus indexing.

It should also be noted that the Simpson-Bowles Commission recommended a 15-cent increase in the motor fuel and diesel fuel taxes, along with indexing.

Targeted Federal User Fees

Another possible solution is based on federal user fees and is derived from a paper written by Beth Bell, an associate at Covington, and myself. The paper is attached as Appendix C.

The paper proposes the following user fees:

- (1) a Federal Interstate User Fee for all vehicles using the Interstate Highway System, with its revenues dedicated to modernizing the Interstate to meet the demands of the 21st century; and
- (2) a Federal Motor Carrier User Fee, with its revenues dedicated to freight-related transportation improvements benefiting the trucking industry.

These targeted user fees have three characteristics in common: they appropriately place the costs of maintaining and improving the federal-aid highway system on its users, they can be implemented relatively easily, and most importantly, they tackle the problem of highway funding on a comprehensive, national level.

Registration Fee Increase

All states impose an annual vehicle registration fee, and at least half the states raise more than a quarter of their dedicated transportation revenues through this mechanism. One possible way to raise additional HTF revenues would be to impose a flat federal registration fee in addition to any state charges. The fee would be set by the Congress and would flow to the HTF. Because the fee would be collected through states' existing systems, this option could be implemented with little additional cost. Unless fees become particularly high, however, the revenue potential of this solution may be limited. And although vehicle-related, the registration fee is not as user-based as some of the other possible solutions being discussed.

Oil-related solutions

Various oil-related taxes and tariffs could be imposed on producers and importers in order to raise funds for the HTF. For example, a straightforward tariff on oil, charged as either a fixed amount per barrel or as a percentage of the value of imported oil, could be imposed.

A more complex system, but one which would more directly affect oil consumption, would involve imposing a tax on oil consumption plus a tariff on imports of refined petroleum. The oil tax would be constructed as a percentage tax on each barrel of oil consumed in the United States. The rate of the tax would be adjusted on an annual or semi-annual basis (primarily to ensure that consumers are not penalized during periods when oil prices spike). The tax would be collected at the refinery level. To prevent international refiners from obtaining an undue advantage, imports of refined petroleum products would incur a tax equivalent to the oil tax. Similarly, exporters would receive a tax credit or rebate equivalent on the oil used to produce exported products.

As other studies have noted, an oil tax or tariff could be set so as to internalize various external costs associated with the consumption of petroleum products—including environmental and national security costs. An oil tariff alone could also promote U.S. energy independence. While these may be desirable policy outcomes, one drawback to a broad oil tax is that it is not user-based; the tax on barrels of oil that are not eventually used as fuels (or as asphalt) would nonetheless flow to the HTF. While it may be possible to apportion the revenue raised by the oil tax according to use, such a system may be administratively difficult and lead to delays in implementation. Additionally, because a tax on oil would necessarily place a greater burden on certain households (for example, because of regional weather differences) and businesses that consume more oil, political opposition to an oil tax may be heavy or insurmountable.

Use of royalties flowing from existing or new oil production is also a possibility.

Existing Revenue Streams

A portion of international customs fees could be dedicated to the HTF to cover the costs of improvements related to the movement of goods into and out of ports of entry. It would also be possible to dedicate a portion of corporate taxes from industries reliant on truck transportation. Increasing these fees and taxes is also an option.

General Treasury option

A final option that would offer little by way of user-targeting, but would be fairly simple to implement, involves using General Treasury funds to supplement the HTF's existing revenue streams. Again, however, a General Treasury option would move away from user-based taxation, and would potentially be an unstable source of funding.

APPENDIX B
FUNDING OPTIONS IDENTIFIED BY THE
NATIONAL SURFACE TRANSPORTATION POLICY AND REVENUE STUDY
COMMISSION

APPENDIX B

NATIONAL SURFACE TRANSPORTATION POLICY AND REVENUE STUDY COMMISSION

Exhibit 5-20. Evaluation of potential transportation revenue sources against generally accepted evaluation criteria

	Revenue Adequacy	Stability Predictability	Responsiveness to Inflation	Flexibility	Appropriateness of Dedication	Compliance Costs	Administrative Costs	Equity by Vehicle Class	Equity by Income Group	Equity by Geography	Relationship to Economic Efficiency	Point of Taxation and Incidence	Evasion Potential	Ease of Implementation	Average
Fuel Tax	Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Indexed Fuel Tax	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Motor Fuel Sales Tax	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Value Added Tax	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Registration Fee	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Personal Property Tax	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Vehicle Sales Tax	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Traditional Tolls	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Tolling New Lanes	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Tolling Existing Lanes	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
VMT Fees	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Indexed VMT Fees	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Congestion Pricing	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Local Option Sales Tax	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Impact Fees	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Innovative Finance*	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Public-Private Partnerships*	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Container Fees	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Customs Duties	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good

* Assumes repayment from tolls

Legend: ● Excellent ● Very Good ● Good ● Not Good ● Poor ● Very Poor

This chart provides a subjective evaluation of a series of alternative revenue sources against a set of criteria.

Source: Commission Staff analysis.

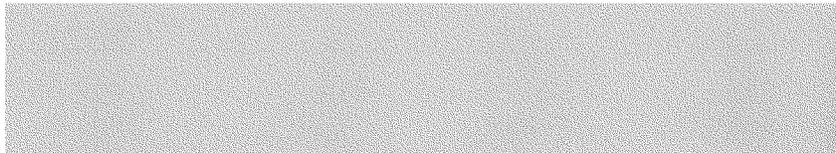


Exhibit 5-21. Advantages and disadvantages of alternative revenue sources	
Motor Fuel Taxes, Excise Tax (per Gallon)	
Source and History	<p>Motor fuel taxes have been the most important revenue mechanism for highway programs at the Federal and state levels.</p> <p>Most states have traditional "cents per gallon" excise taxes on the highway use of motor fuel. Some also have variable rates based on an inflation adjustment or a fuel price. Several alternative fuels currently are taxed on an energy equivalent basis to gasoline or diesel.</p> <p>Fuel taxes also support transit programs at the Federal level and in some states.</p>
Yield, Adequacy and Stability	<p>Historically motor fuel taxes have been attractive because of their high yield (currently about \$1.9 billion per penny of tax at the Federal level), their adequacy to support highway construction programs, and their stability. In recent years the adequacy of the fuel tax has come into question because it does not increase with inflation and because voters at all levels of government have been less willing to approve fuel tax increases.</p>
Cost-Efficiency and Equity	<p>Motor fuel taxes are inexpensive to administer and have low compliance costs. Evasion has been a major issue, especially for diesel fuel, but states and the FHWA have reduced evasion levels.</p> <p>Motor fuel taxes at rates sufficient to fund all needs would not add enough to fuel prices to significantly impact travel volumes.</p> <p>Fuel taxes vary with highway use, but this relationship will become less direct as we move toward more fuel efficient vehicles and greater use of alternative fuels.</p> <p>Raising fuel taxes without at the same time raising truck taxes reduces the equity of the overall highway user fee structure because trucks would pay a lower share of their overall highway cost responsibility.</p>
Economic Efficiency	<p>Motor fuel taxes are not economically efficient because they do not vary as the cost of travel increases. They do vary with vehicle fuel efficiency, but the decline in fuel efficiency when vehicles operate in congested traffic does not reflect the full costs of travel in congested conditions.</p>
Potential Applicability at Program or Project Level and by Different Levels of Government	<p>Motor fuel taxes are applicable to financing programs of improvements, but not individual projects. All levels of government can and do impose motor fuel taxes.</p> <p>Recent studies suggest the fuel tax will be a viable revenue source for highway and transit programs for at least 15 to 20 years, but after that moves to alternative fuels and more fuel efficient vehicles will increasingly erode the ability of the fuel tax to serve its current role as the major revenue source for Federal and State highway programs.</p>
Potential Acceptability	<p>About 20 States have increased their fuel taxes since 2000, but the general aversion to tax increases has made it difficult to increase fuel taxes. The Federal tax has not been increased since 1993. High fuel prices make it even more difficult to raise fuel taxes, even though the tax represents a smaller share of the total price of fuel when prices are high.</p>
Implementation Issues and Potential Strategies to Overcome Barriers	<p>Based on history, adjustments through legislation to the motor fuel excise tax have been the method of choice in most states for major new funding resources to fill funding gaps for state highways.</p> <p>Fat rate fees per gallon have not been adjusted fast enough to keep pace with needs.</p> <p>Motor fuel taxes may be higher per gallon in some States than in neighboring states. Opponents of fuel taxes generally raise the issue of diversion of purchases to neighboring states with lower tax rates.</p>

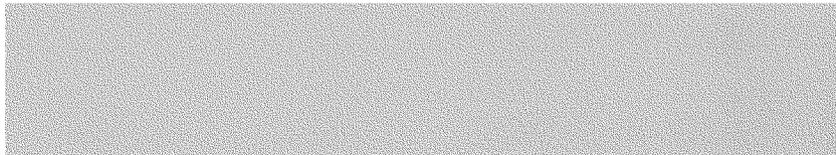


Exhibit 5-21. Advantages and disadvantages of alternative revenue sources, continued	
Motor Fuel Taxes - Indexing of Fuel Taxes	
Source and History	About 5 States currently index their fuel tax to some measure of inflation.
Yield, Adequacy and Stability	The yield and adequacy of motor fuel taxes could be enhanced by indexing to inflation or, in some cases to fuel prices. They could also be indexed to needs estimates or to construction prices, making it responsive to anticipated program costs.
Cost-Efficiency and Equity	Motor fuel taxes by themselves are not equitable among vehicle classes, since the largest vehicles pay less in fuel taxes relative to the costs imposed on highways
Economic Efficiency	Indexing the fuel tax does not make the tax more economically efficient.
Potential Applicability at Program or Project Level and by Different Levels of Government	Indexing the fuel tax does not affect its applicability.
Potential Acceptability	Many argue that simply indexing the fuel tax to some measure of inflation does not constitute a tax increase and thus is more acceptable than a tax increase. Others disagree and say that changes due to indexing are tax increases.
Implementation Issues and Potential Strategies to Overcome Barriers	A ceiling and floor on the change in the indexed rate may be desirable to prevent large changes in tax rates. Many see indexing as just a backdoor way of increasing the fuel tax.
Motor Fuel Taxes - Sales Tax on Fuel	
Source and History	Several States impose a tax on the sales price of fuel.
Yield, Adequacy and Stability	A sales tax on fuel is likely to be more volatile, but could be subject to limits in terms of the maximum or minimum or the rate of change each year.
Cost-Efficiency and Equity	Motor fuel taxes are mildly regressive among income groups. Basing the rate on the sales price of fuel would make them more regressive.
Economic Efficiency	Basing the fuel tax on the price of fuel rather than on a gallonage basis would not improve the efficiency of the tax.
Potential Applicability at Program or Project Level and by Different Levels of Government	Basing the fuel tax on the price of fuel rather than on a gallonage basis would not affect its applicability.
Potential Acceptability	The volatility of fuel prices would adversely affect the public acceptability, especially when fuel prices are rising.
Implementation Issues and Potential Strategies to Overcome Barriers	Sales taxes on fuel have recently been of greater interest due to the increase in fuel prices

Exhibit 5-21. Advantages and disadvantages of alternative revenue sources, continued	
Other Types of Petroleum Taxes	
Source and History	
Yield, Adequacy and Stability	Other types of motor fuel taxes could be utilized.
Cost-Efficiency and Equity	
Economic Efficiency	Other types of petroleum taxes would be no more efficient than the current tax.
Potential Applicability at Program or Project Level and by Different Levels of Government	Fuel taxes by their nature are applicable only at the program level.
Potential Acceptability	Pennsylvania has an oil company franchise tax to collect fees on petroleum fuels.
Implementation Issues and Potential Strategies to Overcome Barriers	Some believe that petroleum taxes have more voter appeal because of a perception that they are imposed on petroleum companies rather than on individual drivers; however, such taxes are normally passed through to drivers the same as other types of motor fuel taxes.
Value Added Tax	
Source and History	The U.S. is one of the few countries that does not have a value added tax. The tax is similar to a sales tax, but is levied at every stage in the production process, not just on final consumption as the traditional sales tax.
Yield, Adequacy and Stability	The yield could be high and would be fairly stable, fluctuating with changes in the national economy.
Cost-Efficiency and Equity	Administrative costs would be higher than for the fuel tax since there are many taxpayers and considerable documentation involved. This potentially could also make it subject to evasion.
Economic Efficiency	The economic efficiency would not be as great as the fuel tax since a VAT would not directly reflect transportation requirements or use.
Potential Applicability at Program or Project Level and by Different Levels of Government	The VAT could be applicable to general transportation purposes. It would be applicable to financing programs of transportation improvements, but not individual projects. It almost certainly would be limited to the national level.
Potential Acceptability	Like any new tax it would face opposition from taxpayers and from businesses.
Implementation Issues and Potential Strategies to Overcome Barriers	A general VAT has been discussed for many years, but rejected. Estimating just the value added by transportation could be difficult.
Registration and Other Vehicle Fees	
Source and History	All states have traditional types of registration fees for light vehicles and somewhat higher and graduated fees for heavy vehicles. At the Federal level the Heavy Vehicle Use Tax is similar to a registration fee but it applies only to the heaviest trucks.

Exhibit 5-21. Advantages and disadvantages of alternative revenue sources, continued	
Registration and Other Vehicle Fees, continued	
Yield, Adequacy and Stability	Registration fees provide major revenue sources for states and local governments (through state allocations) and must be adjusted through legislation. In addition to adjusting rates, other options include revising the type of registration fee.
Cost-Efficiency and Equity	Registration fees are relatively inexpensive to administer in relation to potential yield, but not as inexpensive as fuel taxes. The fact that registration fees do not vary by miles traveled is a major source of inequity and inefficiency. Registration fees allow for collections from vehicles using alternative fuels without establishing new mechanisms for collection.
Economic Efficiency	Registration fees can be varied by vehicle size and can be set in rough relation to highway cost responsibility, except for the impacts of different mileage by similar sized vehicles. Thus for trucks they may be somewhat more efficient than fuel taxes, but for passenger vehicles they likely are less efficient because they do not vary by mileage and they do not capture costs of congestion.
Potential Applicability at Program or Project Level and by Different Levels of Government	Like fuel taxes registration fees are applicable at the program level, but not the project level. The federal Heavy Vehicle Use Tax is similar to a registration fee and all States have registration fees.
Potential Acceptability	Registration fee adjustments are promising as both a short- and long-term option for funding highways.
Implementation Issues and Potential Strategies to Overcome Barriers	Equity among vehicle classes would indicate that parallel adjustments in registration fees should be made applicable to all vehicles.
Registration Fees Based on Value - Personal Property Taxes	
Source and History	A registration fee based on value can be structured as a personal property tax and be deductible from Federal income.
Yield, Adequacy and Stability	A fee on the value of a vehicle could raise substantial revenue, and could be structured to be deductible for Federal income tax purposes, thus increasing the state's revenue yield without an equal increase in net total tax payments.
Cost-Efficiency and Equity	Registration fees for light vehicles, if collected on a flat basis, are somewhat regressive by income class. Registration fees for light vehicles on the basis of value are progressive.
Economic Efficiency	Basing registration fees on value could improve their efficiency somewhat since newer vehicles tend to be driven more than older vehicles.
Potential Applicability at Program or Project Level and by Different Levels of Government	Levying fee on the basis of a vehicle's value would not change the overall applicability of registration fees.
Potential Acceptability	Registration fees (in actuality, personal property taxes on vehicles) based on value have the best revenue generating potential and are less costly to taxpayers in the state.
Implementation Issues and Potential Strategies to Overcome Barriers	Some states have recently eliminated or reduced such fees despite their advantages in comparison to collecting other state taxes that are not deductible for federal income tax purposes.



Exhibit 5-21. Advantages and disadvantages of alternative revenue sources, continued	
Sales Taxes on Vehicles	
Source and History	The Federal Government and many States have sales taxes on vehicles. The Federal tax applies only to heavy trucks, but formerly had been applied to all vehicle sales.
Yield, Adequacy and Stability	Sales taxes on vehicles can be useful revenue sources. They can bring in relatively large amounts of money but their stability is threatened by trends toward the purchase of smaller, more fuel efficient vehicles that cost less than large cars and SUVs.
Cost-Efficiency and Equity	Sales taxes on vehicles will be fairly progressive. Administrative costs are relatively low, but especially with trucks there are issues concerning what specialized equipment should be exempt from taxation.
Economic Efficiency	Sales taxes do not vary with the amount of travel or other factors that affect the costs of travel and thus have poor efficiency.
Potential Applicability at Program or Project Level and by Different Levels of Government	Sales taxes are much more applicable to the program level than the project level. They are particularly applicable at the local level, but could be used at the State level as well.
Potential Acceptability	Sales taxes on vehicles have substantial revenue raising potential.
Implementation Issues and Potential Strategies to Overcome Barriers	All sales taxes already may be deposited into general revenue accounts.
Traditional Tolls	
Source and History	Selected highways and selected bridges have historically been toll facilities.
Yield, Adequacy and Stability	Existing toll facilities have been proven to be reliable and stable generators of revenue. The bonds of toll agencies are highly marketable.
Cost-Efficiency and Equity	Administration and compliance costs for tolling are greater than for motor fuel taxes, although these costs are reduced greatly through electronic toll collection.
Economic Efficiency	Traditional tolls vary by miles traveled and the size of trucks so are more efficient than fuel taxes, but traditional tolls do not vary with congestion levels.
Potential Applicability at Program or Project Level and by Different Levels of Government	Traditionally tolls have been used to finance individual projects. Several States allow tolls from one project to be used to provide front-end financing for other toll roads and thus tolls can be applicable to systems of toll roads or to transit facilities as well. Tolls are applicable at the State and local level, but have not been used at the Federal level.
Potential Acceptability	Tolls may be considered to be highly promising options for application to new highway capacity in the longer term with perhaps some limited short-term opportunities.
Implementation Issues and Potential Strategies to Overcome Barriers	A few existing toll facilities have been leased to international companies, substituting short-term revenue gains by public agencies for lesser longer-term revenues.

Exhibit 5-21. Advantages and disadvantages of alternative revenue sources, continued	
Tolling New Lanes	
Source and History	In the past 10 years, 30-40 percent of new limited access highway mileage has been financed at least in part through tolls.
Yield, Adequacy and Stability	Legislation may be necessary to enable new types of tolls or pricing initiatives. Electronic pricing could significantly expand future opportunities. Toll revenues have been relatively stable at from 5-7 percent of total revenues for highways. If tolls are indexed to inflation revenues could increase substantially. Variable pricing would also increase toll revenues.
Cost-Efficiency and Equity	Tolls collected at traditional toll booths are expensive to administer, but electronic tolling is much less costly. Tolls can be set to achieve equity among vehicle classes. Concerns about the impacts of tolling on equity among income groups continue, but HOT lanes have been supported by all income groups.
Economic Efficiency	Variable tolls are much more economically efficient than fuel taxes.
Potential Applicability at Program or Project Level and by Different Levels of Government	Tolls are predominantly facility-based revenue sources used to finance individual projects. Tolls are applicable at the State and local level, but have not been used at the Federal level.
Potential Acceptability	Major positive opportunities exist to toll new future capacity. Sometimes this could be accomplished with tolls covering only a portion of needed revenues, which provides more total revenue and capacity than no tolling new facilities. Special types of toll facilities such as for truck lanes or HOT lanes could be promising.
Implementation Issues and Potential Strategies to Overcome Barriers	Acts allowing Regional Mobility Authorities (RMA) and a PPP act could expand future possibilities for tolling. Some states do not yet have a PPP act parallel to that of other states, which would enable private parties to initiate proposals to develop new facilities or to add toll lanes to existing facilities.
Tolling Existing Lanes	
Source and History	There currently are restrictions on tolling existing Interstate Highways but that can be done under several pilot programs for either pricing purposes or reconstruction of existing Interstate Highways.
Yield, Adequacy and Stability	Tolling existing lanes could provide very substantial additional revenues.
Cost-Efficiency and Equity	Tolling existing lanes could provide for greater equity than other sources of new revenues, but is widely perceived as inequitable ("paying twice"). This perception is false, however, since funds are needed for the continued maintenance and operation of the facilities.
Economic Efficiency	Variable tolls are much more economically efficient than fuel taxes.
Potential Applicability at Program or Project Level and by Different Levels of Government	Tolls are predominantly facility-based revenue sources used to finance individual projects. Tolls are applicable at the State and local level, but have not been used at the Federal level.

Exhibit 5-21. Advantages and disadvantages of alternative revenue sources, continued

Tolling Existing Lanes, continued	
Potential Acceptability	Opposition to tolling existing lanes is greater than to tolling new lanes. The greatest opportunity for tolling existing lanes may come with tolling Interstate facilities when they must be reconstructed.
Implementation Issues and Potential Strategies to Overcome Barriers	Sentiment is against tolling any currently free highway lanes. Likewise, little opportunity exists for tolling existing free bridges.
VMT Fees	
Source and History	Fees on VMT could be longer-term options that could supply revenues without being directly tied to fuel consumption. VMT fees could be weighted by fuel economy, weight, emissions, or other factors to support other policy goals.
Yield, Adequacy and Stability	VMT fees could be set to yield any level of desired revenues, but unless indexed to inflation their purchasing power would erode over time as does the fuel tax currently. VMT fees do not conflict with the need to reduce energy costs, reduce the balance of payments, or reduce fossil fuel consumption.
Cost-Efficiency and Equity	VMT fees would be more costly to collect and administer than fuel taxes, but long term costs are uncertain.
Economic Efficiency	VMT fees are more directly related to vehicle use than fuel taxes or registration fees. VMT fees, especially if applied as congestion pricing fees or weight-distance taxes can send strong pricing signals to users.
Potential Applicability at Program or Project Level and by Different Levels of Government	VMT fees are primarily for program financing rather than project financing – the counterpart at the project level is the toll. VMT fees could be used at the Federal, State, or local levels.
Potential Acceptability	A 2005 study of highway and transit revenue options for the U.S. Chamber of Commerce's National Chamber Foundation identified VMT fees and congestion pricing fees as promising options in the long term (15 years or more). VMT fees do not reward use of fuel efficient vehicles as does the fuel tax, but incentives for fuel efficient vehicles could come through registration fees.
Implementation Issues and Potential Strategies to Overcome Barriers	VMT fees or congestion pricing fees require the technology to collect those fees reliably and also the political will to implement a new approach. There are privacy concerns associated with VMT fees but concerns are not substantiated. Transitioning away from fuel tax and to a VMT tax will require substantial coordination and consensus building.
Congestion Pricing	
Source and History	Could be applied as a special kind of VMT fee, with fees varying based on the level of congestion on the road. Pricing can also be implemented on an area-wide basis or a cordon basis. While the primary goal of congestion pricing is demand management rather than revenue generation, pricing can generate substantial revenues as well. Pricing can be either facility-based or area-wide. Oregon is demonstrating the technologies for collecting VMT fees at the fuel pump.
Yield, Adequacy and Stability	To maintain purchasing power congestion-related fees would have to be indexed to respond to inflation, but such indexing might not result in the level of congestion tolls desirable to efficiently manage demand. The yield and adequacy of congestion pricing revenues depend on where and how they are implemented. In some cases facility-based charges may cover facility construction and operations costs, but in other cases they may not.

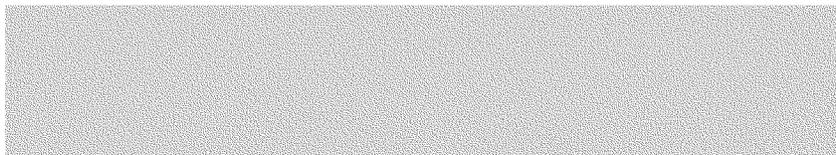


Exhibit 5-21: Advantages and disadvantages of alternative revenue sources, continued	
Congestion Pricing, continued	
Cost-Efficiency and Equity	Congestion pricing is more expensive to administer and enforce than motor fuel taxes. Concerns have been raised about the equity of congestion pricing. Equity is strongly influenced by the availability of good alternatives to driving on the priced highways. Rebate programs have been suggested as one way to reduce adverse impacts on lower income groups.
Economic Efficiency	Congestion pricing is more economically efficient than fuel taxes or most other revenue sources because users directly pay all or part of the costs their driving imposes on others. Congestion pricing could be combined with a weight-distance tax to capture the costs associated with operations of heavy trucks.
Potential Applicability at Program or Project Level and by Different Levels of Government	In the long run, VMT fees and congestion pricing could replace all or a portion of current user fees. Congestion pricing is applicable at either the project level or an area-wide level, but it generally would not be applicable to financing entire statewide transportation improvement programs.
Potential Acceptability	In the U.S. pricing generally has been limited to individual bridges and to HOT lanes and express lanes. The HOT lane and express lane applications have generally been well accepted since they provide drivers the choice of whether to pay to avoid congestion or not. Acceptance of pricing entire facilities or entire areas of a city is more controversial.
Implementation Issues and Potential Strategies to Overcome Barriers	The ability to apply pricing on the Interstate System is limited by federal law. Good transit alternatives also must be available for those who cannot afford the congestion toll and cannot change their trip destination or time of day.
Local Option Taxes	
Source and History	Have been widely used in many states to support highway and transit investments. Local governments in most states have implemented some type of local option tax, which must be specifically allowed by state enabling legislation. Local option taxes for transportation investments include motor fuel, vehicle, property, sales, and income taxes.
Yield, Adequacy and Stability	Sales taxes tend to have the highest yield compared to other local option taxes. Motor fuel and vehicle taxes tend to generate less revenue compared to other local option taxes. Except for motor fuel and vehicle taxes, other local option taxes tend to be indexed with inflation. Sales taxes respond to economic growth. Fluctuations in economic conditions tend to affect sales tax yield. Gasoline taxes and income taxes also could be impacted to some level by fluctuations in the economy.
Cost-Efficiency and Equity	Collection mechanisms already are in place to levy these taxes at the state or local level. Most local option taxes are regressive (except for income taxes). However, sales taxes tend to receive stronger support than other local option taxes. People consider that sales taxes are more "fair," since everyone pays, whether they are vehicle or transit users.
Economic Efficiency	Most local option taxes do not reflect the costs associated with highway use and thus are not economically efficient.
Potential Applicability at Program or Project Level and by Different Levels of Government	Local option taxes may be applicable to a major project, but are more applicable to a program of transportation improvements. By definition these fees are applicable only at the local level.

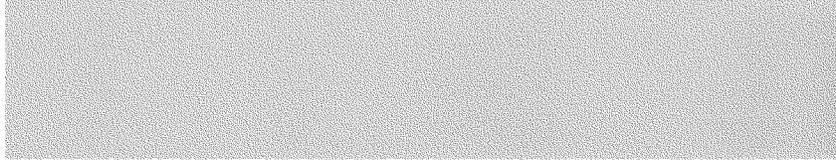


Exhibit 5-21. Advantages and disadvantages of alternative revenue sources, continued	
Local Option Taxes, continued	
Potential Acceptability	State legislation must be in place that allows local option taxes. Sales taxes have been widely used by transit agencies to support operations and capital investments. Rates of success with ballot measures to fund transportation have been increasing, as documented by the Center for Transportation Excellence.
Implementation Issues and Potential Strategies to Overcome Barriers	Commonly, local option taxes require voters' approval. While an expenditure plan that specifies projects and/or programs to be funded with the new local option tax levies is not always required, local option taxes have better chances of success for implementation where expenditures and uses are clearly defined. Implementation plans that are well designed have resulted in very high success rates for ballot measures to enhance transportation revenues.
Beneficiary Charges: Impact Fees	
Source and History	Impact fee legislation exists in 26 states (excluding Florida). Impact fees for transportation improvements are widely used in California and Florida.
Yield, Adequacy and Stability	Revenues from impact fees are typically dedicated for certain road and transit improvements that would serve the new development. In addition, revenues from impact fees will be highly dependent on development opportunities in the area where implemented. Value capture tools are subject to increases in property value realized by infrastructure improvements.
Cost-Efficiency and Equity	These charges can be relatively equitable if properly structured. Benefit districts can target the specific beneficiaries. While impact fees are directly charged to developers, they pass those charges to buyers, increasing the cost of real estate. TIF allocates a portion of the additional property taxes resulting from the increase in property values. Communities and local agencies could argue that implementation of TIF would take away revenues that otherwise would be used to meet other public needs.
Economic Efficiency	Beneficiary charges send modest pricing signals to encourage better transportation and land use integration.
Potential Applicability at Program or Project Level and by Different Levels of Government	Beneficiary charges may be applicable to a major project, or to a program of transportation improvements in a local area. These fees are applicable only at the local level.
Potential Acceptability	Implementation is subject to enabling legislation that allows the collection of impact fees and the formation of assessment districts. These tools tend to be most applicable in higher growth state or localities.
Implementation Issues and Potential Strategies to Overcome Barriers	Impact fees are only applicable to new development. TIF and other property assessments may require the formation of districts, where property tax levies are dedicated for transportation improvement. This may require voters' approval from district residents and business owners. Beneficiary charges have been the subject of numerous lawsuits in many areas.

Exhibit 5-21. Advantages and disadvantages of alternative revenue sources, continued	
Innovative Finance	
Source and History	Most states have used one or more forms of the IF financing tools. Innovative finance is not a source of new revenues, but rather a method of financing projects or programs of projects. It usually involves borrowing that must be repaid from other sources of funds such as fuel taxes, tolls, or other revenue sources.
Yield, Adequacy and Stability	IF financing tools are used to leverage capital in the form of debt or equity. They rely on existing or new revenue sources to pay the indebtedness.
Cost-Efficiency and Equity	Incurring longer-term debt helps advance programs and projects that would otherwise take years to develop if at all. Innovative finance may be more equitable than financing high-cost projects out of current revenues because it spreads the cost to future users who will also benefit from the investment.
Economic Efficiency	The economic efficiency will depend on the source of revenues from which indebtedness is repaid.
Potential Applicability at Program or Project Level and by Different Levels of Government	Innovative finance is more often used at the project level, but it also is applicable to the program level as well. It is most applicable to the State and local levels of government.
Potential Acceptability	Innovative finance is usually well accepted since it spreads the cost of projects over time.
Implementation Issues and Potential Strategies to Overcome Barriers	States may require enabling legislation to issue GARVEE bonds. Most innovative finance grant management tools are codified under Title 23 U.S.C. and require no special action from states to be used. To test new grant management tools, states may apply to U.S. DOT under the SEP-15 or TE-045 programs. Debt mechanisms must be balanced against long-term revenue sources. Many states cap the amount of debt that can be issued.
Public-Private Partnerships	
Source and History	PPPs are commonly used in Europe to reduce public-sector costs to construct, operate, and maintain highway facilities but are not yet widely used to support similar projects in the United States. PPPs are primarily financing and project delivery mechanisms, but like innovative finance they may help accelerate project delivery. Highway improvements are now eligible for financing with private activity bonds.
Yield, Adequacy and Stability	States and other public sponsors increasingly consider private-sector involvement as a way to spur implementation of large projects. Since these projects typically are supported by tolls, the yield, adequacy, and stability will depend on characteristics of the specific project.
Cost-Efficiency and Equity	PPPs can facilitate access to private capital and bring innovative cost-saving projects delivery methods. Cost-efficiency and equity will be similar to other types of tolls. Since the private sector often handles toll collection and must deal with enforcement, public agency costs for those items are low.
Economic Efficiency	The economic efficiency of PPPs as a financing mechanism is similar to other toll facilities, although PPPs are more likely to use electronic toll collection and other methods for improving operational efficiency. Other efficiencies unrelated to financing may also be realized through the use of PPPs.

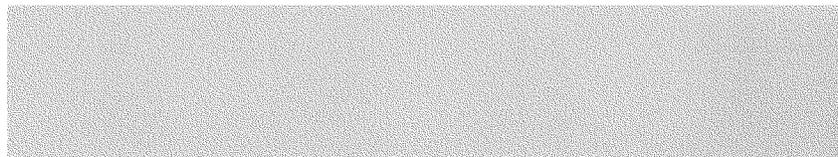


Exhibit 5-21. Advantages and disadvantages of alternative revenue sources, continued	
Public-Private Partnerships, continued	
Potential Applicability at Program or Project Level and by Different Levels of Government	PPPs that involve private sector capital generally are implemented at the project level. Several states are using PPPs to operate and maintain portions of their highway systems, but those do not all involve tolling. PPPs are applicable at either the State or local level.
Potential Acceptability	PPPs have become quite controversial. Several States routinely consider PPPs for certain types of projects while uncertain public acceptance has prevented other States from doing so.
Implementation Issues and Potential Strategies to Overcome Barriers	Specific project proposals need to be evaluated to determine if it will be cost-effective. May require enabling legislation. More than 20 states have explicit PPP acts that provide means to bring the private sector into funding and management of highways. Virginia's act has fostered a wide range of proposals.
Container Fees	
Source and History	A number of current and emerging trends are driving the exploration of container charges and other direct user fees as a transportation revenue source. These include the rapid growth in international and domestic freight volumes and recognition that new revenue sources will be needed to fund freight-specific transportation improvements.
Yield, Adequacy and Stability	Container fees represent a potentially large source of revenue. A recent NCHRP report estimated that a \$30/TEU fee applied at all U.S. ports, would generate average annual revenues of \$2.2 billion through 2017. A study performed in 2005 for the Southern California Association of Governments (SCAG) found that a container fee of \$192 per TEU assessed on every inbound loaded container at the San Pedro Bay ports could fund about \$20 billion in access infrastructure improvements.
Cost-Efficiency and Equity	Container fees offer a way to tie freight system users more directly to the resources and infrastructure they use. These fees are seen by many as a more equitable method to raise revenue that can be dedicated specifically to freight system improvements.
Economic Efficiency	Economic efficiency will depend on the extent to which the container fees reflect the costs associated with the freight facility. If congestion costs are not significant and container traffic represents the preponderance of traffic on the facility, container fees may be relatively efficient, although they would not capture differences in the container weights.
Potential Applicability at Program or Project Level and by Different Levels of Government	There are limited options to fund or finance non-highway freight improvement projects. Current federal programs may be applicable to small, localized freight system improvements, but are not well suited to larger regional intermodal freight improvements. Container fees could provide substantial revenues for such large-scale projects and would be appropriate for both rail and highway components of intermodal projects. Container fees could be applicable to either State or local projects.
Potential Acceptability	It will be challenging to develop consensus among competing jurisdictions and other stakeholders on the types and locations of projects to be developed.
Implementation Issues and Potential Strategies to Overcome Barriers	Implementing a container fee that equitably links costs and potential benefits for the mix of freight traffic using any given gateway may be difficult.

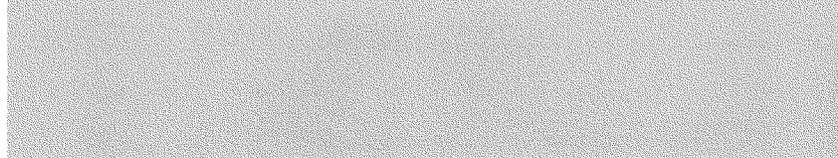


Exhibit 5-21. Advantages and disadvantages of alternative revenue sources, continued

Customs Duties	
Source and History	The majority of customs duties currently are deposited into the U.S. General Fund, although a portion is used to support costs of Customs and Border Patrol operations.
Yield, Adequacy and Stability	In FY 2002 customs duties amounted to \$23.8 billion in gross revenue, three quarters of which was collected from marine sources. This would be a very stable source of revenues.
Cost-Efficiency and Equity	Fees based on the value of cargo are not as equitable as those on the volume because they do not reflect the transportation requirements as well.
Economic Efficiency	The economic efficiency of customs duties is poor since the value of cargo has little bearing on costs associated with moving the cargo. The efficiency of customs duties would also depend on the type of facilities financed from those fees.
Potential Applicability at Program or Project Level and by Different Levels of Government	Customs duties would be most appropriately used for improvements to waterside or landside port or airport facilities, to improve the connections between these facilities and the highway and freight rail systems, or to improve freight facilities serving large volumes of international shipments. They would be applicable to the Federal level only.
Potential Acceptability	One key disadvantage is the likely resistance by the Congress and federal agencies to the diversion of Customs duties to offset freight transportation investments.
Implementation Issues and Potential Strategies to Overcome Barriers	Some will argue that gateway improvement programs already exist and point to SAFETEA-LU's Coordinated Border Infrastructure Program (Section 1303), but finding from that program currently is inadequate.
Tax Credit Bonds	
Source and History	Like innovative finance, tax credit bonds are a financing mechanism and not a new source of revenue. Tax credits would represent reductions of income taxes owed by bond holders.
Yield, Adequacy and Stability	Tax credit bonds could provide a large and stable source of funds to finance transportation improvements for a fixed period of time.
Cost-Efficiency and Equity	Tax credit bonds would have low administrative and enforcement costs since those costs would be small increments of costs associated with processing Federal income tax returns. Bonds would be relatively progressive with income since bond interest would be paid from general tax revenues.
Economic Efficiency	Income tax from which bond interest would be "paid" has no relationship to costs of transportation system use.
Potential Applicability at Program or Project Level and by Different Levels of Government	This financing mechanism would be applicable at the program level and would apply to the Federal Government.
Potential Acceptability	Implementing such a financing mechanism would be difficult since it could represent a loss of General Fund revenues.
Implementation Issues and Potential Strategies to Overcome Barriers	Several tax credit bond proposals for surface transportation have been introduced in recent years (e.g., Build America Bonds, Amtrak, other rail infrastructure), but none has yet been enacted.

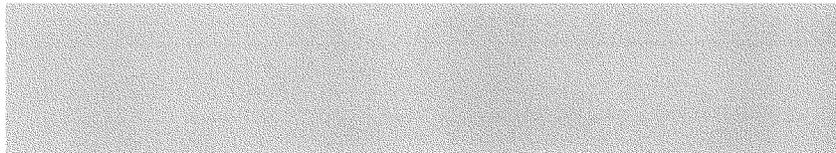


Exhibit 5-21. Advantages and disadvantages of alternative revenue sources, continued	
Infrastructure Bank	
Source and History	Over the years various forms of infrastructure bank have been proposed as mechanisms to provide funds for infrastructure investment. These banks are not necessarily limited to transportation investment. Like other financing mechanisms, funds borrowed from the infrastructure bank would have to be repaid from some other general or project-related revenue source.
Yield, Adequacy and Stability	Infrastructure banks can provide large and stable sources of funds for a limited period of time.
Cost-Efficiency and Equity	Administrative costs generally would depend on the revenue source from which borrowed funds were repaid.
Economic Efficiency	The relative economic efficiency would depend on the source of revenues from which borrowed funds were repaid. Tolls would tend to be more efficient than fuel taxes or other general revenues.
Potential Applicability at Program or Project Level and by Different Levels of Government	This financing mechanism would be applicable to either the program or project level. Revenues to repay loans would come from the State or local level of government.
Potential Acceptability	Borrowed funds would likely come from the Federal General Fund. Getting agreement to allocate General Funds for this purpose could be difficult.
Implementation Issues and Potential Strategies to Overcome Barriers	As noted, there have been several proposals for infrastructure banks over the years, but it is not believed any have been enacted.

This table provides details supporting the summary evaluation of alternative revenue sources presented in Exhibit 5-20.

Source: December 2006 NCHRP study, *Future Financing Options to Meet Highway and Transit Needs* and Commission Staff analysis.

APPENDIX C

PAPER BY JACK SCHENENDORF AND ELIZABETH BELL
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Transportation

America's national surface transportation network is in crisis, writes Jack L. Schenendorf, of Counsel, Covington & Burling LLP. Without additional transportation investment, the United States economy will suffer. While raising motor fuel taxes, which comprise the majority of federal transportation receipts, would be one solution, there does not seem to be the current political will to do so. Schenendorf proposes two alternative solutions, a Federal Interstate User Fee and a Federal Motor Carrier User Fee, to supplement current federal transportation revenues in order to restore and modernize the transportation network.

Modernizing U.S. Surface Transportation System: Inaction Must Not Be an Option

By JACK SCHENENDORF AND ELIZABETH BELL

Jack L. Schenendorf, of Counsel, Covington & Burling LLP, concentrates on transportation and legislation with a particular focus on legislative strategy, legislative procedure, and the federal budget process. For nearly 25 years, Schenendorf served on the staff of the Committee on Transportation and Infrastructure of the U.S. House of Representatives. Elizabeth Bell, associate, Covington & Burling LLP in the firm's Washington, D.C. office, practices in the tax and government affairs practice groups.

On April 15, 2011, Rep. Paul Ryan (R-Wis.) stood on the floor of the House to discuss the financial health of the U.S. economy. "Let me ask you this," he said of the 2008 financial crisis:

What if your President and your member of Congress saw it coming? What if they knew why it was happening, when it was going to happen, and more importantly they knew what to do to stop it and they had time to stop it but they didn't, because of politics? . . . We cannot avoid this choice. To govern is to choose. We are making a choice even if we don't act. And that's the wrong choice.¹

Ryan asked these questions during the debate on the fiscal year 2012 budget. But his remarks could apply

¹ 157 Cong. Rec. H2900 (Apr. 15, 2011).

equally, if not more so, to the impending transportation crisis facing the United States.

For decades, the United States has underinvested in the national surface transportation network. As a result, the aging, congested network is in need of repair and does not have adequate capacity to accommodate future population and economic growth. Despite the persistent calls of policy groups, as well as independent, government-sponsored commissions and studies, for increased investment, the Highway Trust Fund (HTF)—the primary vehicle for federal surface transportation funding—has been perpetually underfunded.

Should this pattern of government inaction continue, our economy, which depends on the efficient and safe transportation of goods and people, will suffer as our surface transportation network literally grinds to a halt. U.S. businesses will become less competitive in the global marketplace. U.S. companies will be forced to locate plants to other countries where transportation services are adequate. U.S. private-sector jobs will be lost. And the American people will suffer, in terms of lost job opportunities, longer and more stressful commutes, and a lower standard of living.

In other words, this transportation crisis is predictable. President Obama and members of Congress can see it coming. They know why it is happening. They know when it is going to happen, and they have time to stop it. Most importantly, they know what to do to stop it—and, in fact, revenue-raising solutions to maintain and improve our surface transportation network can be implemented almost immediately. The problem has been politics. There has not been the political will to raise the federal motor fuel or diesel fuel taxes that comprise the majority of federal surface transportation funding, even though study after study, and report after report, has recommended doing so.

To make meaningful improvements to the national surface transportation system, Congress must raise additional revenues. Ideally, Congress would do so by implementing the independent, bipartisan recommendations regarding motor and diesel fuel taxes. If this does not happen and no new revenue is raised, a reduction in spending will result, further exacerbating the transportation crisis. Thus, it is imperative that Congress develop alternative mechanisms to supplement existing revenues in the Highway Trust Fund. The primary purpose of this paper is to propose two such alternative mechanisms. They are:

1) a Federal Interstate User Fee for all vehicles using the Interstate Highway System, with its revenue dedicated to modernizing the interstate to meet the demands of the 21st century; and

(2) a Federal Motor Carrier User Fee, with its revenue dedicated to freight-related transportation improvements benefiting the trucking industry.

These targeted user fees have three characteristics in common: they appropriately place the costs of maintaining and improving the federal-aid highway system on its users, they can be implemented relatively easily, and most importantly, they tackle the problem of highway funding on a comprehensive, national level.²

² Though mechanisms for investing in public transportation (such as buses and rail transportation) are beyond the scope of this white paper, a user fee or use tax could also be imposed to raise funds for public transit systems. See, e.g., National Sur-

The next section of this paper provides background information on state of the Highway Trust Fund and its funding challenges. These challenges mandate significant, rather than patchwork, policy changes. After the challenges are described, the paper discusses the importance of the national surface transportation network to our economy, and the key principles necessary to creating viable funding solutions. Especially important is the need for a consistent federal policy that is truly national, rather than focused on state- or local-level fixes. The two solutions noted above are then discussed, including details of design, administration, and policy advantages.³

The federal surface transportation network is a crucial and dangerously neglected driver of our economy. To put it bluntly, failure to adequately fund the maintenance and expansion of this system is not an option. As a country, we can't avoid making the choice to address this problem—and inaction is the wrong choice.

State of Highway Trust Fund: Burning Platform In the 1950s, President Dwight D. Eisenhower had a vision of a unified nation. Without a robust, federally-supported transportation system, he stated, the United States “would be a mere alliance of many separate parts.”⁴ In 1956, the federal government established the Highway Trust Fund (HTF) to help realize President Eisenhower’s vision. Created by the Highway Revenue Act of 1956, the HTF is a financing mechanism that accounts for tax receipts dedicated for expenditures on highways and transit needs. Currently, the HTF houses two accounts: one for the highway program, and one for public transit.

Since its inception, the HTF has been funded by taxes on motor fuels and vehicles. By linking transportation-related taxes with transportation-related funding, the HTF ensures that the costs of the new federal highway system are primarily borne by its users. Through the ample revenue they provided to the HTF, the Eisenhower generation helped build not only a state-of-the-art highway system, but also one that included extra capacity for generations of drivers to come.

The number of drivers using the highway system since the HTF was created has increased drastically, especially over the last 30 years. From 1980-2006, vehicle miles traveled increased 97 percent for automobiles and 106 percent for trucks. In 2007, drivers traveled about 3 trillion vehicle-miles and 5 trillion passenger-miles on public highways, along with 1.3 trillion ton-miles of freight (about 30 percent of the total).

In the past three decades or so, however, the total number of highway lane miles grew only 4.4 percent. As a result, hours of delay per traveler almost tripled from 1982-2005, and total hours of delay increased fivefold. In urban areas alone, congestion resulted in 4.8 billion hours of traveler delays and consumption of an additional 3.9 billion gallons of fuel in 2009. Freight movements have been similarly affected: the top 25 truck bottlenecks in the U.S. (primarily at interstate inter-

face Transportation Policy and Revenue Study Commission, *Transportation for Tomorrow* 5-18 (Dec. 2007).

³ Should the reader want information on even more potential solutions, Appendix I briefly describes other, short- to medium-term revenue-raising possibilities. Appendix II provides a comprehensive list of federal revenue options from recent government studies.

⁴ Remarks of February 22, 1955.

changes) account for about 37 million truck hours of delay each year.

These problems aren't only the result of a steadily growing usage, but also of deteriorating conditions. As of 2006, more than half of total vehicle miles traveled on the federal highway system occurred on roads that were not in good condition. More than one-quarter of the nation's bridges are structurally deficient or functionally obsolete.⁵

How did we get from having one of the world's pre-eminent transportation systems to an overburdened system that is steadily falling into a state of disrepair? The heart of the problem is this: while we have been benefiting from the expenditures of the generation that helped to build the Interstate Highway System, we have failed to make adequate federal investments of our own.

Though national surface transportation expenditures have increased over time, they have not kept pace with national growth. Expenditures on highway maintenance and improvements are shared by local, state, and federal governments. When growth in vehicle miles traveled is taken into account, real highway spending across all these levels of government has fallen by nearly 50 percent since the creation of the HTF.⁶ The federal contribution to highway spending, in particular, has remained fairly constant, falling behind rather than responding to additional infrastructure demand.⁷

The vast majority of federal-level highway funding is provided through the HTF. Currently, about 90 percent of HTF revenue is derived from excise taxes on motor fuels.⁸ These taxes are set at 18.4 cents per gallon of gasoline and 24.4 cents per gallon of diesel, but are not indexed for inflation and have not been raised for almost two decades. The tax has lost about 33 percent of its purchasing power since it was last raised.⁹ At the same time, recent legislation—most notably the Transportation Equity Act for the 21st Century and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users—substantially boosted federal highway spending.¹⁰

As a result of the economic downturn, declining real receipts, and increasing outlays, the HTF is in a solvency crisis. Since, by law, the HTF cannot incur a negative balance, Congress has been forced to authorize three emergency funding infusions totaling \$34.5 billion since 2008.¹¹ Yet short-term and long-term

shortfalls still loom—and investment needs continue to grow.

In both business and government, many managers and executives recognize the term “burning platform,” a crisis so severe that it necessitates radical and immediate change. The term's origins are traced back to the story of a man working on an oil platform in the North Sea. One night, a fire erupted, forcing the worker to the end of the platform. As the fire approached, the worker had to make a decision: submit to the fire, or jump into the waters of the North Atlantic. Although a dive into the sea is a drastic move, the worker simply couldn't wait until the fire engulfed the entire platform.

It is the position of this white paper that, in terms of funding our national surface transportation system, we are standing on a burning platform. Drastic action is necessary.

The first step is to reform federal surface transportation programs. Existing programs should be thoroughly reviewed, consolidated to the maximum degree possible, reoriented toward performance, and refocused on the national interest. Project delivery must be streamlined. And at the very least, a multi-year reauthorization bill should ensure that receipts are in line with outlays.¹²

As needed as it is, reform alone will only throw a bucket of water on the conflagration. What is really feeding the fire is increased transportation demand and usage. For example, both passenger and truck travel are anticipated to grow at an annual rate of approximately 2 percent through 2035.¹³ Current federal policies will not be able to keep pace with that growth.

What the HTF truly needs is a significant and immediate increase in revenue. Even if every dollar raised for transportation needs by our financial and institutional structures is utilized in the most effective manner, the current level of funding would not be adequate to maintain the operational performance and physical condition of the highway system.¹⁴ Indeed, revenues generated by current law will only provide enough resources to cover less than half of what is needed to maintain our highways through 2035. Similarly, those revenues will only meet about 35 percent of what is needed to improve our highway system.¹⁵

We can no longer take advantage of the investments of prior generations. Instead of struggling to meet the bare minimum requirements for maintenance, we should anticipate the future needs of the highway system and ensure those needs are met. Instead of watching the fire consume the current policy platform, we need to jump off.

Action, Inaction, and Economic Growth

The significant changes required to maintain and improve our highways are not only needed for the convenience and the safety of individual drivers—although these are important concerns. A deteriorating public

⁵ For these and other statistics, see, for example, National Surface Transportation Infrastructure Financing Commission, *Paying Our Way: A New Framework for Transportation Finance* 22 (Feb. 2009); Congressional Budget Office, *Alternative Approaches to Funding Highways* 1-3 (Mar. 2011).

⁶ National Surface Transportation Infrastructure Financing Commission, *supra* n.5, at 34.

⁷ *Id.*

⁸ The remaining revenue comes from a sales tax on certain trucks and tractors, taxes on truck tires, and a heavy vehicle use tax. See, e.g., Congressional Budget Office, *supra* n.5, at 2.

⁹ See, e.g., American Association of State Highway and Transportation Officials, *The Forum on Funding and Financing Solutions for Surface Transportation in the Coming Decade: Conference Report 2* (Jan. 2011).

¹⁰ National Surface Transportation Infrastructure Financing Commission, *supra* n.5, at 43.

¹¹ American Association of State Highway and Transportation Officials, *supra* n.9, at 4.

¹² Of course, without additional revenues, balancing receipts and outlays would require a reduction in funding, which would further exacerbate the investment crisis.

¹³ National Surface Transportation Policy and Revenue Study Commission, *supra* n.2, at 5-16.

¹⁴ *Id.* at 4-3.

¹⁵ American Association of State Highway and Transportation Officials, *supra* n.9, at 6.

highway system also powerfully impacts the wellbeing of the U.S. economy.

The remainder of Rep. Paul Ryan's April 15 remarks, cited at the beginning of this white paper, emphasized the need for budget reform as a necessary aid to economic growth. Ryan considered budget changes crucial to the preserve America's promise of prosperity to the next generation. Without providing for the future, he argued, the United States will slide into decline.

Again, these remarks apply, and urgently, to our transportation infrastructure.

Our national highway network is a critical driver of our national economy. It is a rare example of a physical government infrastructure that reaches every American—if not individual drivers, then individuals who consume goods and services that could only be provided thanks to state-to-state transportation. It increases productivity and lowers transaction costs. It has been instrumental in enhancing mobility, and thus providing access to jobs, education, and other opportunities that have increased the quality of life in the United States.

If no action is taken, that is, if no investments are made to maintain and improve the highway system to accommodate greater demand for access to goods and services, access to these benefits will be limited.

A recent report by the McKinsey Global Institute shows just how far behind the U.S. has fallen in terms of building a 21st-century infrastructure. Compared with the 139 countries examined by the World Economic Forum's Global Competitiveness Report 2010-2011, the U.S. ranks 23rd on overall quality of infrastructure, behind countries such as Canada, France, Germany, and Japan. This represents a precipitous drop over the past decade: In 2000, the U.S. ranked 7th.¹⁶

Worse still, our inadequate infrastructure imposes unnecessary additional costs on the U.S. economy and American taxpayers. The McKinsey report goes on to estimate that increasing road congestion in the United States already costs more than \$85 billion a year. On a per traveler basis, this annual cost ranges from \$1,084 in very large urban areas to \$384 in suburban and rural locations.¹⁷

At a time of increasing global competition and uncertain economic growth, the United States can't afford to undermine the benefits that a well-functioning transportation system provides or allow inaction to impose additional costs on U.S. travelers. U.S. jobs, the U.S. economy, and this country's position as a global economic leader are at stake.

Evaluating Appropriate Solutions

In response to the pending transportation crisis, dozens of solutions have been proposed by public policy groups and government commissions with respect to raising HTF revenue.¹⁸ Rather than repeat that litany of options, this white paper proposes two *new* solutions, based broadly on concepts found in previous studies,

¹⁶ McKinsey Global Institute, *Growth and Renewal in the United States: Retooling America's Economic Engine* 52 (Feb. 2011).

¹⁷ *Id.* at 53.

¹⁸ For the breadth of options reviewed by these government commissions, please see Appendix II.

which meet three general principles. All three of these principles are important for creating revenue-raising mechanisms that are efficient, viable, and best reflect the scope of the federal highway system and its role in the U.S. economy.

First, proposed solutions should approximate a true user fee as closely as possible. The HTF's major revenue stream, motor fuel taxes, is an example of a revenue-raising solution that attempts to place the responsibility for maintaining and improving the highway system on its actual users. Revenue options that hew as closely as possible to user fees are fairer and more economically efficient, causing the individuals who impose costs on the system (for example, by increasing the need for repairs through a high level of use) to pay those costs, rather than obligating non-users to shoulder the burden.

Second, the solutions should be relatively easy to implement. As this white paper suggests, the problem of federal highway funding requires an urgent response. Moreover, ease of implementation usually—though not always—translates into less costly and more politically viable programs.

The third and most important principle is the need for a truly national investment policy. Highway Account funding is focused on the federal-aid eligible highways that make up about 25 percent of the nation's 4 million miles of roads but carry more than 85 percent of the vehicle miles traveled annually.¹⁹ Modernizing these highways, especially the major highways that make up the National Highway System (which includes the Interstate System) will require significant, sustained investment over a considerable period of time. The HTF is uniquely suited for this type of investment.

Previous reports on the issue of highway funding often raise solutions such as credit enhancement programs, bonding, state-level tolling, national or state infrastructure banks, and private-public partnerships. These options, while worthwhile and clearly part of the solution, are not the complete solution. Such programs will not generate enough revenue for the system-wide, sustained investment that is needed over the long term. Moreover, they tend to reside at the local- and even project-level. State and local governments are subject to different and more narrowly-focused political pressures than the federal government. If funding fixes are aimed only at changes on the state- and local-level, there is a danger that the transportation system would become balkanized—to the detriment of the national network.

The focus in creating the federal-aid highway system was the concept of a country unified by a nationwide infrastructure. In today's highly competitive global economy, this vision is more important than ever. Only a strong federal role will help realize this unity, allowing for systemic improvements in both high-traffic and low-traffic states. There is also the issue of fairness. A very costly project in State A may be needed because of traffic destined for other distant states. It is not fair to ask the citizens of State A to pay the whole tab for a project that benefits millions of people across the network. The costs of modernizing the national network should be borne by all of the users of the network.

¹⁹ See, e.g., Congressional Budget Office, *supra* n.5, at 1.

This approach is consistent with the federal role in transportation throughout our nation's history.²⁰ From President George Washington's support for federal construction, maintenance, and repair of existing and future lighthouses, buoys and public piers for rendering navigation "easy and safe";²¹ to presidential hopeful Henry Clay's support for capital improvements; to President Abraham Lincoln's support for the transcontinental railroad; to President Theodore Roosevelt's support of the Panama Canal; to President Franklin Roosevelt's support for a cross-country, high-level road system; to President Dwight Eisenhower's support of the Interstate Highway System and the Highway Trust Fund; and to President Ronald Reagan's support for increased motor fuel user fees to preserve and modernize the federal-aid highway network, the federal government has been instrumental in the development of our nation's strong surface transportation network.

Thus, the solutions recommended below focus on increasing the receipts of the HTF for countrywide distribution.

Motor Fuel Excise Tax: Missed Opportunity

One obvious solution that meets the three criteria outlined in the previous section is an increase in the motor fuel and diesel fuel excise taxes. Political opposition to any such increase, however, would appear to make this solution unlikely, at least in the near term.

As mentioned above, motor fuel taxes on diesel and gas constitute about 90 percent of HTF receipts. These taxes are charged at a flat rate per gallon that is set by Congress. The current tax rates on motor fuels are 18.4 cents per gallon for gasoline and 24.4 cents per gallon for diesel fuel. An increase in these rates is long overdue; Congress has not changed the rates since 1993, and because they are not indexed for inflation, their efficacy as a revenue-raising tool has diminished substantially over the past 18 years. Had the federal gas tax rate of 18.4 cents per gallon been indexed using the Consumer Price Index for all Urban Consumers, beginning in 1993, the tax rate in 2008—the year of the HTF's first emergency infusion—would be 27.5 cents per gallon.²²

Because the motor fuel tax is already in place as the primary funder of the HTF, implementation of a tax increase or an indexing solution is straightforward and could be easily accomplished, at least technically. Moreover, the motor fuel tax approximately places the cost of maintaining and improving the highway system on users of that system. Although the tax is collected at the fuel terminal level, it is passed on to drivers at the pump.

Despite enjoying widespread support as the best and most appropriate HTF fix, at least for the short- and medium-term, a motor fuel tax increase is unlikely to

²⁰ The federal role in transportation policy is rooted in the U.S. Constitution itself. Article I, Section 8, clause 3 provides that Congress has the power to regulate interstate commerce, a power which includes the regulation of interstate transportation. In terms of highways themselves, the Constitution is even more explicit, granting Congress the power to "establish . . . post Roads" in Article I, Section 8, clause 7.

²¹ An Act for the establishment and support of Lighthouses, Beacons, Buoys, and Public Piers, ch. 9, 1 Stat. 53 (1789).

²² See National Surface Transportation Infrastructure Financing Commission, *supra* n.5, at 41.

happen.²³ Historically, motor fuel taxes have received a reasonable degree of public and political acceptance.²⁴ In the face of the current political opposition to any tax increases, however, the viability of this solution seems too low at this time.

If Congress does not increase the current motor and diesel fuel taxes, it should, nevertheless, consider indexing them to inflation. This would at least preserve the current purchasing power of those taxes and be a part of the solution to the transportation investment crisis.

Recommended Solutions: Targeted Federal User Fees

If there is not the political will for a motor fuel tax increase, other solutions exist that could avoid or minimize the pushback against raising taxes. This white paper suggests two such solutions: (1) a Federal Interstate User Fee (FIUF) and (2) a Federal Motor Carrier User Fee (FMCUF). Note that in both cases, these targeted user fees are meant to supplement, rather than replace, existing motor fuel taxes and other HTF revenue sources. If the solutions are adopted, these existing HTF revenue sources could be used to repair and modernize other portions of the national surface transportation network.²⁵

Federal Interstate User Fee

The Federal Interstate User Fee (FIUF) would impose a user fee on interstate highway users.

FIUF Design

The FIUF would impose a use-based fee on all interstate highway users. This fee would be collected through a system like E-ZPass that would detect entry onto and exit from interstate highways. No tollbooths or other major structures would be constructed in order to collect the user fee. Rather, the system would be completely electronic. Standardized transponders could be included on newly manufactured vehicles and retrofitted to older models. Entry and exit data would be collected by electronic readers stationed at highway on- and off-ramps.

Fees would be set at the level necessary to reimburse states for the federal share of the costs of restoring the Interstate Highway System to a state of good repair and the costs of expanding and modernizing the system, including projects for the improvement of international points of entry and exit. Personal and commercial travelers would pay for use of the interstate system in proportion to the costs associated with that use while maintaining the current allocation of highway cost responsibility. In addition, fees could be set at rates that differ by geographic areas to account for costs associated with repair and modernization. For example, the fee on

²³ We recognize that an increase in motor fuel taxes would not be a sustainable, long-term solution. See, e.g., *id.* at 102-103, 106 (discussing factors that would make motor fuel taxes less effective, such as fuel efficiency improvements and environmental concerns). Our recommended solutions, discussed in the next section, provide long-term revenue-raising options that are not exposed to the weaknesses of the motor fuel taxes.

²⁴ See *id.* at 106.

²⁵ Examples of FIUF, FMCUF, and base revenue projects can be found in Appendix III.

less-congested portions of the interstate might be less than the fee on highly-congested portions.²⁶ The fees would not be designed to control the level of traffic or to “price out” drivers from using the interstate.

FIUF revenue would be collected automatically on a periodic basis, for example, monthly. Interstate Highway users would, likewise, receive periodic statements detailing their highway use and the resulting charges. Fees for commercial vehicles would be collected through businesses; individual drivers would receive personal statements. All fees would be deposited into a newly created subaccount within the existing Highway Account of the HTF.

Administration and use.

All FIUF fees collected would be used to repair and, more importantly, modernize the Interstate Highway System. Fees would be used to reimburse states for the federal share of funds expended on the interstate. Revenues in the HTF’s Highway Account would no longer be used on interstate projects but instead would be used to upgrade the remaining federal-aid highways, including the major non-interstate highways on the National Highway System.

Under the FIUF program, no other policy changes with respect to interstate highway projects would be made. Projects would be developed, planned, approved and constructed by states in the same manner as they are today.²⁷ In other words, the federal-state partnership would remain unchanged. The only structural difference would be the source of federal funding. FIUF revenues, rather than HTF Highway Account revenues, would be used to reimburse states for the federal share of interstate highway projects.

²⁶ Exemptions or credits for low-income drivers could also be incorporated into the administration of the FIUF, depending on the costs and complexities involved. The cost of the exemptions or credits should, however, be borne by the General Treasury, not the HTF.

²⁷ As stated earlier, it is the position of this white paper that, as a crucial first step, the federal surface transportation system must be reformed, including by consolidating projects, reorienting the federal program towards performance, refocusing on the national interest, and streamlining project delivery. The projects that the FIUF and FMCUF fund, like all other federal-aid projects, would be done in accordance with such reforms.

To ensure that interstate users pay only at the level necessary for repair and improvement of the Interstate Highway System, user fee rates would be adjusted annually. To facilitate fair and precise fee-setting, Congress would create an independent entity to set or adjust the fees in accordance with the policies established by Congress. The entity would be comprised of experts, including stakeholders such as representatives from the motor carrier industry, passenger vehicle groups like AAA, and state highway departments, and would be responsible for the ministerial task of periodically adjusting the user fee rates to ensure adequate revenue to reimburse the states. This process would be transparent and would include reports to Congress and the executive branch.

Aside from setting fees, the independent entity described above could also make recommendations to the states and the Department of Transportation regarding interstate projects of national priority, such as interstate expansion, the improvement of international points of entry and exit, and freight improvements of national commercial importance. Finally, the entity could serve a public affairs and educational role by keeping the public informed of the goals and accomplishments of FIUF investment.

Federal Motor Carrier User Fee

The second recommended alternative solution, the Federal Motor Carrier User Fee (FMCUF), is similar to and meant to complement the FIUF. Since the FIUF program reaches all drivers, trucks, too, would be responsible for paying the FIUF. Unlike the FIUF, which is limited to only interstate highways, the FMCUF would be imposed on commercial trucks’ usage of all roads.

FMCUF Design.

The FMCUF would be imposed on the same use-basis as the FIUF. Unlike the FIUF, however, the FMCUF program would take advantage of tracking equipment already installed on most trucks for fleet management purposes. Monitoring equipment (usually, though not always, GPS-based) allows companies in the freight industry to efficiently monitor vehicle location, direction, and speed. This technology would be used to calculate FMCUF liability. Importantly, trucks would not be double-charged for use of the interstate; rather, that use would be recorded through the FIUF program.

FMCUF fees would be collected on a monthly basis. Fee payers—primarily freight-related businesses—would receive detailed statements on vehicle usage. Collected FMCUF fees would flow to a dedicated subaccount within the existing Highway Account of the HTF.

Administration and use.

The FMCUF program would be administered by the same entity as the FIUF. This entity would set FMCUF fees on an annual basis in accordance with the policies established by Congress. Ideally, FMCUF fees would vary based on geographical location.

As with the FIUF program, no other policy changes with respect to freight projects would be made.²⁸ Funds disbursed from the FMCUF subaccount would be allocated solely to freight improvements, especially freight bottlenecks, high-cost freight projects, and freight projects of national significance, including intermodal facilities. These projects would be over and above the freight projects funded under the base program by existing HTF revenues. The FMCUF funds would not be geographically restricted, but would be used for freight projects throughout the country. The expert body that sets the FMCUF fees could also make recommendations regarding projects to which FMCUF receipts should be directed.

Use of Existing Revenue

As mentioned above, if the FIUF and the FMCUF are adopted, existing HTF revenues would be freed for other uses. Specifically, existing HTF revenues would no longer be used on interstate projects, since the new FIUF program would fund all interstate projects. Likewise, freight projects funded by the FMCUF would no longer be funded from that revenue.

Using the FIUF and FMCUF programs as a supplement, rather than a replacement, is a crucial part of the transportation funding solutions described above. While the interstate is the backbone of the U.S. highway system, carrying about a quarter of all vehicle miles traveled annually, all federal-aid eligible highways combined carry approximately 85 percent. These non-interstate highways will need to be repaired and upgraded to meet current and future transportation needs. By guiding existing HTF revenues from the motor fuel excise tax and other sources towards these non-interstate roads, the FIUF and FMCUF programs will aid the improvement of the *entire* National Highway System.

Advantages of FIUF, FMCUF Solutions

The FIUF and FMCUF, if designed and implemented as described, clearly meet the three principles that this white paper considers important to successful HTF funding solutions and would have a number of other economic and policy advantages. Specifically, an HTF revenue-raising framework that incorporates the FIUF and FMCUF:

- *Is based on a true user fee principle.* The FIUF and FMCUF are true user fees. While the motor fuel tax and the other current revenue sources of the HTF reach users indirectly—they tax vehicles and transportation-related goods, not highway use—the FIUF and FMCUF place the burden of funding interstate highway improvements squarely on individual drivers, based on their highway travel.²⁹

²⁸ As with the FIUF program, FMCUF projects would be implemented in accordance with the federal transportation program reforms mentioned in the previous footnote and earlier in this white paper.

²⁹ The concept of implementing targeted user fees to pay for certain transportation costs is not new. For example, President George W. Bush's administration opposed an increase in the gas tax, but proposed to raise billions through transportation user fees such as an aviation security fee, a rail safety fee, and an aviation cost-based fee.

- *Is based on a true user fee principle.* The FIUF and FMCUF are true user fees. While the motor fuel tax and the other current revenue sources of the HTF reach users indirectly—they tax vehicles and transportation-related goods, not highway use—the FIUF and FMCUF place the burden of funding interstate highway improvements squarely on individual drivers, based on their highway travel.

- *Is relatively easy to implement.* The FIUF and FMCUF could be implemented in the medium-term, if not the short-term. Implementation of the FIUF and FMCUF would require a non-negligible amount of investment, but the technology and even some infrastructure (existing structures at highway entry and exit points in the case of the FIUF, for instance) are already present.

- *Represents a truly national investment policy.* FIUF and FMCUF revenues would be distributed to projects across the Interstate Highway System and would not be restricted to certain states or localities. By design, the FMCUF would be dedicated to national freight projects, and the FIUF program would generate sufficient revenue to upgrade the Interstate Highway System to once again be the crown jewel of the U.S. transportation system. The interstate is the backbone of this system: even though it makes up a little more than 1 percent of our road mileage, it carries more than 24 percent of the vehicle miles traveled annually.³⁰

- *Modernizes our national transportation network.* The revenue from the FIUF and FMCUF programs would be specifically tailored and dedicated to meet interstate and freight improvement needs. The additional revenue would not only allow the U.S. to modernize these parts of its surface transportation system, but would also free up existing HTF resources for the rest of the national network—allowing for improvement of the entire federal-aid highway system.

- *Modernizes federal financing mechanisms.* Aside from helping to modernize our highway system, the FIUF and FMCUF programs would also modernize the way our government collects revenue: namely, through automated, electronic means. This collection system could provide an important policy model for future programs. In addition, given increased concerns about fuel prices and oil dependence, a move to targeted highway user fees represents a much-needed step towards post-gas tax revenue strategies. And, by setting a national policy regarding Interstate Highway usage, the programs will prevent the balkanization that could occur as a result of state and local tolling policies.

- *Minimizes individual driver privacy concerns.* Unlike revenue-raising proposals based on tracking all vehicle miles traveled, the FIUF minimizes individual privacy concerns by only recording entry and exit points onto the interstate system. Similar systems, such as E-ZPass, I-Pass, and FasTrak, are already used by and have gained widespread acceptance in many states.

- *Represents a politically feasible and fair solution.* As explained above, the FIUF and FMCUF are user fees, not taxes. Moreover, the FIUF and FMCUF are strongly linked to increased expenditures—the fees are set only to meet freight and interstate modernization needs. There is no demand-pricing component to the fees,

³⁰ See National Surface Transportation Policy and Revenue Study Commission, *supra* n.2, at 4-8.

which are geared towards current investment, not paying debt. The link between fee payment and use of revenues not only makes economic sense, but also allows users to know what they are getting for their fee payments, which should increase public acceptance of the fees.

■ *De-politicizes the fee adjustment process.* The technical fee-adjustment authority under the FMCUF and FIUF programs would reside in the expert body described above, not in Congress. Unlike the motor fuel tax, then, the FIUF and FMCUF would not be held hostage to political inertia, and could be more easily adjusted to meet the needs of the surface transportation system.

■ *Will lead to increased revenues without increasing the federal debt.* The FIUF and FMCUF would not require an increase in existing taxes, the deficit, or debt. The FIUF and FMCUF programs are based on a pay-as-you-go principle: Because current user fees would pay directly for any increased investment, after implementation costs are covered, no new taxes or general fund appropriations would be necessary to support the modernization of the highway system. In fact, increased infrastructure investment will in the long-term lead to robust economic growth, which will generate greater revenue—a result recognized by deficit-reducing plans like the Bowles-Simpson Commission.³¹

■ *Helps solve the short- and long-term HTF crisis.* Without further action, looming HTF spending cuts will likely be enacted in the near future. These cuts will further exacerbate the HTF crisis without making a single step towards a long-term solution. The FIUF/FMCUF framework, on the other hand, will not only help solve this short-term fiscal problem, but lead to increased investment in the longer term. The FIUF and FMCUF programs would restore the mission and the vision of the federal surface transportation program, with its focus on interstate and freight projects of broad national importance.

Conclusion

At a time when the financial well-being of this country is in the political spotlight, one crucial piece of U.S. economic health has been consistently ignored—the quality of our federal highway system. Once one of the preeminent transportation systems in the world, these roads have fallen into disrepair, and the federal account through which they are funded has faced years of solvency crises. By continuing to neglect our highways, we are essentially neglecting the functioning—and the future—of our economy.

Solutions exist, however, that can reverse the decline of the highway infrastructure. Given the political resistance to proposals to raise the motor fuel excise tax, this paper recommends two new, alternative solutions—in particular, user fees to improve the interstate and that are dedicated to national freight projects—that are available to be implemented in the short term or medium term.

³¹ The National Commission on Fiscal Responsibility and Reform, *The Moment of Truth: Report of the National Commission on Fiscal Responsibility and Reform* 12 (Dec. 1, 2010). In terms of investment in the U.S. transportation system, the Commission recommended a 15-cent per gallon increase in the gas tax dedicated solely to transportation funding. *Id.* at 24.

Given the urgency of the transportation crisis, inaction is no longer an option. Rather than wait for this wholly predictable crisis to descend on our country, enacting solutions now to balance the Highway Trust Fund and expand the highway system will restore our transportation infrastructure to its rightful and necessary place as the world-class, unifying network that its builders envisioned.

Appendix I

In addition to the recommendations in the primary text of this white paper, the following four options are also viable solutions. These options, however, fail to fully meet the principles outlined above. Nonetheless, due to their potential as revenue-raising mechanisms, they warrant brief discussion below.

Registration Fee Increase

All states impose an annual vehicle registration fee, and at least half the states raise more than a quarter of their dedicated transportation revenues through this mechanism.³² One possible way to raise additional HTF revenues would be to impose a flat federal registration fee in addition to any state charges. The fee would be set by the Congress and would flow to the Highway Account of the HTF. Because the fee would be collected through states' existing systems, this option could be implemented with little additional cost. Unless fees become particularly high, however, the revenue potential of this solution may be limited. And although vehicle-related, the registration fee is not as user-based as the FIUF and FMCUF programs detailed in the main body of this paper.

Infrastructure Bonds

Debt-financing, particularly via the use of tax-exempt bonds offered by state and local governments, is a traditional source of funds for transportation infrastructure. This solution would expand the state and local bond concept to the national level by attracting investors through an issuance of federal infrastructure bonds. Federal infrastructure bonds would essentially function as war-bond-like debt instruments that would allow the public to invest in the federal highway system. While a targeted infrastructure bond issuance is a viable revenue-raiser, this solution lacks a direct link to highway users.

Oil-related solutions

Various oil-related taxes and tariffs could be imposed on producers and importers in order to raise funds for the HTF. For example, a straightforward tariff on oil, charged as either a fixed amount per barrel or as a percentage of the value of imported oil, could be imposed.³³

A more complex system, but one which would more directly affect oil consumption, would involve imposing a tax on oil consumption plus a tariff on imports of refined petroleum.³⁴ The oil tax would be constructed as a percentage tax on each barrel of oil consumed in the

³² National Surface Transportation Infrastructure Financing Commission, *supra* n.5, at 75.

³³ *Id.* at 81.

³⁴ RAND Corporation, *The Option of an Oil Tax to Fund Transportation and Infrastructure* 5-6 (2011).

United States. The rate of the tax would be adjusted on an annual or semi-annual basis (primarily to ensure that consumers are not penalized during periods when oil prices spike). The tax would be collected at the refinery level. To prevent international refiners from obtaining an undue advantage, imports of refined petroleum products would incur a tax equivalent to the oil tax. Similarly, exporters would receive a tax credit or rebate equivalent on the oil used to produce exported products.

As other studies have noted, an oil tax or tariff could be set so as to internalize various external costs associated with the consumption of petroleum products, including environmental and national security costs.³⁵ An oil tariff alone could also promote U.S. energy independence. While these may be desirable policy outcomes, one drawback to a broad oil tax is that it is not user-based; the tax on barrels of oil that are not eventually used as fuels (or as asphalt) would nonetheless flow to the HTF. While it may be possible to apportion the revenue raised by the oil tax according to use, such a sys-

³⁵ See, e.g., *id.* at 10-14.

tem may be administratively difficult and lead to delays in implementation. Additionally, because a tax on oil would necessarily place a greater burden on certain households (for example, because of regional weather differences) and businesses that consume more oil, political opposition to an oil tax may be heavy or insurmountable.

Existing Revenue Streams.

A portion of international customs fees could be dedicated to the HTF to cover the costs of improvements related to the movement of goods into and out of ports of entry. It would also be possible to dedicate a portion of corporate taxes from industries reliant on truck transportation.

General Treasury Option.

A final option that would offer little by way of user-targeting, but would be fairly simple to implement, involves using General Treasury funds to supplement the HTF's existing revenue streams. Again, however, a General Treasury option would move away from user-based taxation, and would potentially be an unstable source of funding.

Appendix II

Summary Chart: Highway Trust Fund Revenue Sources

POTENTIAL FEDERAL REVENUE OPTIONS

Categories based on evaluations by the National Surface Transportation Policy Commission and Financing Commission.^[1]

Strong to Moderate	Weak	Not recommended
Automobile tire tax	Auto-related sales tax	Federal tax on local parking fees
Carbon tax/cap and trade	Bicycle tire tax	Federal tax on local transit fares
Container fee	Congestion pricing	Minerals severance tax
Customs duties	Dedicated income tax	Petroleum franchise tax
Freight waybill tax	Driver's license surcharge	Value-added tax
General fund transfer	Freight ton-mile tax	Vehicle inspection and traffic citation surcharge
Harbor maintenance tax	General sales tax	Vehicle personal property tax
Heavy vehicle use tax	Innovative finance	Windfall profits tax
Motor fuel excise tax		
Sales tax on motor fuels		
Tariff on imported oil		
Truck tire tax		
Truck/trailer sales tax		
Vehicle miles traveled fee		
Vehicle registration fee		
Vehicle sales tax		

[1] National Surface Transportation Policy and Revenue Study commission. *Transportation for Tomorrow* 5-38 (December 2007); National Surface Transportation Financing Commission, *Paving Our Way: A New Framework for Transportation Finance* 96 (February 2009). Note that the solutions above are *federal*, rather than state or local, options.

Appendix III

Examples of FIUF, FMCUF, and HTF Projects

Federal Interstate User Fee (FIUF).

The FIUF would be used on projects to modernize the Interstate Highway System and make it, once again, the crown jewel of our national surface transportation network and the envy of the world. For example, FIUF revenues would be used to:

- Restore the Interstate Highway System, which is reaching 40-50 years of age, to a state of good repair through an aggressive program of preservation, including projects to substantially rehabilitate, or in some cases replace, many of its 55,000 bridges; and reconstruct major portions of its 210,000 lane miles.
- Improve system performance by applying the full range of intelligent transportation systems (e.g., navigation systems, traffic signal control systems, real-time parking guidance and notification systems, and vehicle detection and notification systems) and aggressive systems of operation and management strategies.
- Replace aging interchanges that have become major bottlenecks with interchanges that have wider lanes and geometric designs to allow higher volumes of cars and trucks to exit and merge more safely at higher speeds.
- Reduce congestion by adding additional lane miles to urban and rural interstates, where appropriate.

- Expand the Interstate Highway System, where appropriate, to provide connections to new and emerging centers of population and commerce.

Federal Motor Carrier User Fee (FMCUF).

The FMCUF would be used exclusively on freight projects that benefit the trucking industry. For example, FMCUF revenues would be used to:

- develop a national strategic freight plan;
- create and fund a national freight program;
- reduce congestion on national and regional non-interstate freight corridors; and
- invest in intermodal connectors (access roads and other systems that efficiently connect the shipment of goods involving more than one mode of transportation) to the nation's ports, rail terminals, and air cargo hubs.

Base Highway Trust Fund (HTF) Program.

Since the FIUF would be used to fund all interstate projects, existing HTF revenues would be freed to invest in the non-Interstate portion of the federal-aid highway system, which is no less important to the national transportation network. These base HTF revenues would be used to:

- Preserve and modernize the 115,000 miles of the non-Interstate National Highway System, including important corridors such as the Avenue of the Saints, Transamerica Corridor, Hoosier Heartland Industrial Corridor, Great Lakes/Mid-Atlantic Corridor, Heartland Expressway, U.S. 395 (Calif., Nev., Ore., Wash.),

CANAMEX, Ports-to-Plains, Wisconsin Development Corridor, Capital Gateway Corridor, East-West Corridor, SPIRIT Corridor, Theodore Roosevelt Expressway, and Camino Real Corridor, among others.

- Address urban congestion through operational improvements and, where necessary, increased capacity.

- Improve rural highways to keep U.S. agriculture competitive, especially lower-classification federal-aid roads that link farm and local roads with the National Highway System.

- Upgrade narrow, two-lane, rural roads that cannot safely carry the kind of trucks now moving across the United States to support the renewable fuels industry, wind farm energy production, and the development of other energy resources.

- Improve rural highways to handle the growth in international and domestic trade moving through the heartland of America.

- Preserve and upgrade, where necessary, the Strategic Highway Network (STRAHNET), a network of highways that are important to the United States' strategic defense policy and that provide defense access, continuity, and emergency capabilities for defense purposes. STRAHNET Connectors—highways that provide access between major military installations and ports—would also be maintained and upgraded where appropriate.

- Provide connectivity between urban and rural America, and address seasonal congestion and bottlenecks associated with interstate tourism, especially at national parks.

- Provide adequate access to new and emerging cities and towns so that our highway system will be the unifying network that President Eisenhower envisioned.

Written Statement by David Seltzer, Principal
Mercator Advisors LLC

before the
House Panel on 21st Century Freight Transportation
Hearing on Funding the Nation's Freight System

"The Role of Innovative Finance Tools"

October 10, 2013



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The Role of Innovative Finance Tools

October 10, 2013

Chairman Duncan and Ranking Member Nadler, thank you for inviting me to testify this afternoon on "The Role of Innovative Finance Tools" in freight transportation. My name is David Seltzer, and I am a Principal at Mercator Advisors, a Philadelphia-based financial consulting firm that works with governmental, private and nonprofit entities seeking to finance major transportation projects and programs. We also advise transportation industry groups on Federal policy initiatives that could stimulate infrastructure investment.

My personal background includes over 35 years in arranging financing for infrastructure projects, including 20 years in public finance investment banking, three years at the Federal Highway Administration as special advisor to the Administrator on innovative finance, and the last dozen years as a co-founder and principal at Mercator Advisors. Aside from my current "day job", I also serve as chairman of the Philadelphia Gas Works—the nation's largest municipally-owned gas utility—which is in the midst of a privatization process, giving me a special appreciation of the opportunities and challenges in seeking to deliver essential infrastructure services.

You have heard expert testimony today from the other witnesses concerning the *funding issues* confronting America's freight transportation system. I would like to briefly share with you an overview of some *financing tools* that are being used—and indicate what types of Federal policy initiatives, in my view, could be most effective in helping advance major freight capital investments.

Although the terms “funding” and “financing” are often used interchangeably, it is important to recognize the distinction between the two concepts: *Funding* refers to the underlying cash flows derived from user charges, fees or taxes associated with a project or program, whereas *financing* refers to the instruments or techniques used to “monetize” (obtain upfront resources from) the revenue streams needed to construct the project. Financing tools include debt obligations such as long-term taxable, tax-exempt or tax credit bonds, as well as equity investments and contributed public (and private) capital.

Capital Investment in Freight Infrastructure

Freight transportation encompasses a wide array of services, facilities and operating entities supporting goods movement by land, air and sea. While we think of freight shipments as being primarily a private sector responsibility, the capital investment in infrastructure in many cases involves both governmental (Federal, state and local) resources as well as business-generated resources, as shown in Table 1 below:

Table 1: Summary of Freight Transportation Infrastructure ownership & Responsibilities

Freight Mode	Connectors/Corridors ("Rights of Way")	Hubs (Intermodal & Intramodal Terminals)	Carriers
Trucking	Highways— Generally Public	Distribution centers— Private	Private
Rail	Railways*— Private	Railyards— Private	Private
Marine	Waterways/Harbors— Public	Marine Terminals— Public and Private	Private
Aviation	Airways— Public	Airports— Generally Public**	Private

* A small percentage of rail right-of-way and terminals are under public ownership.

** A small percentage of airports are privately owned.

Of course, many freight terminal facilities are intermodal in nature, with goods transfers from ship-to-rail, rail-to-truck or truck-to-ship. These hubs and the local surface connectors accessing them (“last mile,” or “first mile,” depending on your perspective) are critical junctures in the goods movement network, and frequently are the source of congestion and delays that affect shippers, carriers and the general public. Accordingly, I would like to focus my remarks on these intermodal facilities. Large intermodal projects often have high capital costs, can involve multiple jurisdictions, and generate substantial non-market effects (spillover costs/benefits or externalities). As a result, they are among the most challenging types of projects to finance.

In connection with some research we undertook for the Eno Center for Transportation, we surveyed a list of 35 freight projects identified as intermodal freight or cargo access investments in studies by the Federal Highway Administration and National Cooperative Highway Research Program.¹ The wide range of project types is summarized below:

Table 2: Intermodal Freight Projects

Type of Project	Quantity	Value (\$ millions)
Port Terminal	3	\$ 854
Port Surface Access	11	4,414
Air Cargo Terminal	3	142
Air Cargo Surface Access	2	31
Rail Truck Terminal	6	1014
Rail-Truck Access	5	77
Rail Capacity Expansion	5	768
TOTAL	35	\$ 7,300

As might be expected, various financing strategies were used to advance this diverse group of projects. One of the key findings was that, unlike other types of infrastructure, there did not appear to be any consistent template in designing the financial plan for the projects; each one was custom-crafted, based on the nature of the project, its economics and its specific stakeholders. There are, however, several general findings that the data reveal. For example, for freight terminal projects, where the benefits of the investment are more squarely centered on the private business operators, the private sector generally assumed responsibility for the majority of the project costs. Less than 10 percent of the funding was derived from tax-based sources. In contrast, for the surface access projects, where there was a higher degree of public benefit (in terms of congestion relief, public safety, pollution reduction, etc.) on average only 37 percent of project costs were borne by the private sector; the majority of costs (63%) were publicly-supported, primarily from taxes. In addition, the majority of the projects relied on pay-as-you-go funding, using government grants, corporate contributions and current revenues.

¹ Hoel, Lester A., Giuliano, Genevieve, and Meyer, Michael D., eds. *Intermodal Transportation: Moving Freight in a Global Economy*. Washington, DC: Eno Transportation Foundation, 2011. ISBN 978-0-9718175-5-5)

“Innovative Project Finance” in Context

The current Federal funding support for freight is diffuse and under-capitalized. Only a small portion of USDOT’s grant funding significantly targets projects that facilitate goods movement. The existing grant support is supplemented by credit support and tax incentives that may be accessed through the TIFIA, RRIF and Private Activity Bond (PAB) programs. In addition, Congress over the last decade has authorized a Railroad Track Maintenance Tax Credit program (section 45g of the tax code) that currently extends through year-end. It allows short-line (Class 2 and 3) rail carriers to claim annual tax credits for up to \$3,500 per mile for 50% of the cost of maintaining track owned or leased by them. The scored cost has been approximately \$165 million per year.

There are a number of reasons why Federal grant funding to date for freight projects has been limited:

- Most state/local planning historically has been oriented to traditional public works, which have a broad political constituency compared with freight projects, whose direct beneficiaries may be much narrower.
- Much of the freight infrastructure (particularly freight rail) is privately-owned, and many states have legal and policy restrictions limiting the contribution of public funds to private beneficiaries.
- Projects are often intermodal in nature, and do not easily fit into existing Federal program structures that are modally-oriented.
- Many of the projects span multiple jurisdictions, hindering the formation of institutional entities to serve as comprehensive project sponsors and champions.
- The direct private benefits can be hard to monetize, and the non-market effects (spillover benefits) are difficult to quantify.

Using the lens of Federal policy tools, there are essentially four broad policy approaches the government can use to stimulate infrastructure investment: grants, regulatory streamlining, credit assistance and tax code incentives. *Grant funding* has been the traditional Federal tool for surface transportation, but as we are all acutely aware, fiscal limitations on both the Federal General Fund and the dedicated transportation trust funds make prospects for major increases in grant funds highly problematic in the near term.

Regulatory reforms, unlike grants, generally have little if any adverse fiscal impact, and can be very helpful in streamlining project delivery. Congress (most recently in reauthorizing Federal policies and programs in MAP-21) and the current and previous Administrations (through issuing Executive Orders) have directed Federal agencies to streamline the permitting and environmental review process. By way of example, the environmental clearance for the final

design of the \$3.9 billion Tappan Zee Bridge replacement was completed in less than a year. While accelerating projects can avoid cost inflation and bring transportation improvements online sooner, regulatory reforms may not provide a deep enough subsidy in and of themselves to stimulate major capital investment.

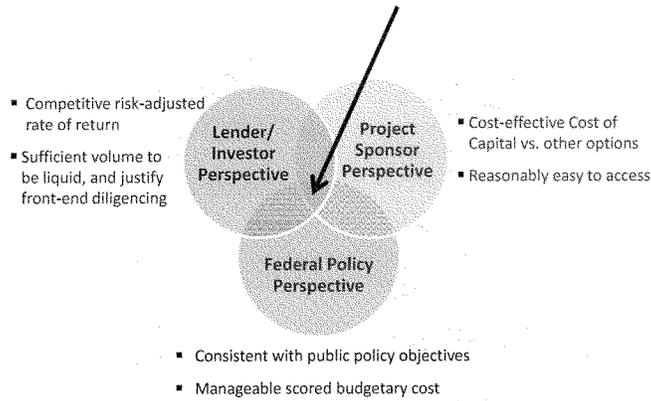
The last two Federal policy categories—*credit assistance* and *tax code incentives*—are financing approaches that may offer more investment promise in the current fiscal environment because they can:

- Induce state and local governments to identify new revenue streams to repay loans;
- Bring the market discipline of private co-investment to improve project selection; and
- Avoid the high scored budgetary cost associated with traditional grant funding.

In order to be successful, any Federal financing proposal must address the requirements of three principal stakeholder groups. First, from the perspective of the **project sponsor** (which could be a state or local entity, a private corporation in the freight sector, or a public-private partnership), the new tool has to represent a *cost-effective source of capital*, compared to other existing approaches. Second, from the perspective of the **investors** or lenders (which could be public entities, like state infrastructure banks and public pension funds, or private entities, such as individual investors and financial institutions), the financing tool must offer a *competitive risk-adjusted rate of return*. And finally, from the perspective of the **Federal government**, the tool has to be both *fiscally affordable and consistent with public policy objectives*. The most effective innovative finance tools therefore will be those that are able to successfully address the respective requirements of these three classes of stakeholders, as illustrated in the chart below:

[See next page]

Ideal Design of Federal “Innovative Finance” Policy Tools



Summarized below are several Federal e finance tools that have been used to advance freight projects to date, including a brief description of their impact from the perspectives of the project sponsor, investor and Federal policymaker. I also suggest some other new innovative finance tools that could play an important role in the future.

Private Activity Bonds for Intermodal Projects

The Internal Revenue Code generally prohibits tax-exempt financing of facilities benefiting private businesses, necessitating more costly taxable rate financing. However, Congress has identified approximately a dozen categories of private activity purposes that *may* be financed on a tax-exempt basis (airports, docks and wharves, multi-family housing, redevelopment projects, etc.). These are called Private Activity Bonds (PABs).

SAFETEA-LU established a new class of “exempt facility” PABS under the tax code for “qualified highway or surface freight transfer facilities”. To be eligible, the project must be for either a title 23 purpose, an international bridge or tunnel, or an intermodal rail-truck transfer facility. A national limit of \$15 billion is currently authorized under the program, which is allocated by the Secretary of Transportation on a discretionary basis.² The PABs are Federally tax-exempt

² This volume ceiling is in addition to each state’s annual private activity bond limitation under current law--the greater of \$95 per capita or \$295 million per year

but generally are subject to the alternative minimum tax (AMT), which currently adds about 0.35% to the required market yield compared to other governmental tax-exempt bonds.

To date, USDOT reports that \$3.8 billion of PABs and have been issued for nine separate projects, and allocations have been made for another eight projects totaling \$4.4 billion. However, only four of the 17 authorized or financed projects are specifically for intermodal freight projects—all part of CenterPoint Intermodal's Midwest real estate portfolio. (These intermodal freight terminals have received PAB allocations totaling nearly \$1.8 billion, or 22 percent of the total commitments to date.) The remaining 11 allocations are for toll roads (seven of which are passenger car express toll lanes) and one passenger rail facility.

Project Sponsor Perspective: Up until the Great Recession, there had been a significant cost savings in being able to borrow on a tax-exempt basis. However, today, due to limited demand for long-term tax-exempt bonds, and the effect of AMT liability on PAB investors, the net benefit vs. taxable financing is estimated to be only about 0.25% per year, or 2.5% of the amount borrowed, in present value terms. If the AMT yield penalty were eliminated, the rate savings would be closer to 0.60% per year.

Investor Perspective: The lender/bondholder receives a risk-adjusted tax-free rate of return of perhaps 5.25% for a 30-year bond with a mid-investment grade bond rating. This return compares to *fully taxable* yields of 3.75% on long-term Treasury bonds and approximately 5.40% on similarly-rated long-term taxable municipal bonds

Federal Perspective: The program subsidizes investment in intermodal connections that will expedite goods movement and stimulate economic development. The scored cost of the program represents the "tax expenditures" (foregone income tax to the Treasury) associated with a private corporation borrowing on a tax-exempt basis. The Treasury scored the cost of the Administration's proposed expansion of this program by \$4 billion in its FY2014 Revenue Proposal at \$515 million over the ten-year budget window (representing about 13 percent of the face amount of new PABs authorized).

Transportation Infrastructure Finance and Innovation Act (TIFIA) Federal Credit Program

The TIFIA program was enacted in 1998 as part of TEA-21, extended in SAFETEA-LU, and expanded significantly in MAP-21. It provides credit assistance to major surface transportation investments (\$50 million and more) in the form of direct loans, loan guarantees, and lines of credit.³ TIFIA assistance is available for projects eligible for Federal assistance under title 23

³ Virtually all TIFIA participants have opted for direct loans because of the lower borrowing rates and greater payment flexibility.

(highways) or chapter 53 of title 49 (transit), international bridges or tunnels, intercity passenger bus or rail facilities and vehicles, public freight rail facilities, intermodal freight transfer facilities, and surface access projects to freight facilities. If the project is located within the boundaries of a port terminal, TIFIA eligibility is limited to surface transportation infrastructure modifications that are necessary to facilitate intermodal transfers and access into and out of the port.

TIFIA assistance legally may cover up to 49 percent of eligible project costs, but in practice USDOT continues to adhere to a 33 percent limit.⁴ The TIFIA loan may be subordinated to other debt obligations, except in the case of a bankruptcy-related event, and the payment schedule may be deferred. The “subsidy cost” (loss reserve) associated with each loan is funded through contract authority from the Highway Trust Fund. The scored cost is essentially the same for a direct loan from the Federal government at the Treasury rate or a Federal loan guarantee on a loan funded by a third-party lender, since both tools measure budgetary cost based on expected losses from borrower defaults.

There currently are outstanding 29 TIFIA loans with an initial principal amount of \$10.2 billion. Another seven loans totaling \$1.6 billion have been fully repaid. Only two of the loans under TIFIA—Reno Transportation Rail Access Corridor and Port of Miami Tunnel—are for principally freight transportation purposes. That means that just over three percent of the TIFIA program’s total loan commitments to date (about \$390 million out of \$11.8 billion) have supported projects that are primarily freight-oriented.

Project Sponsor Perspective: Obtaining long-term loans at the Treasury’s own cost of capital—today, approximately 3.75%—represents a substantial reduction in borrowing rates for most state/local issuers compared to tax-exempt borrowing through the municipal bond market. For example, a project with a Single A rating could save at least 1% in interest expense—the equivalent of 12+ percent savings for the amount borrowed, in present value terms. For a P3 borrower lacking access to the tax-exempt bond market, the savings are even greater—nearly 20 percent in present value terms. In addition, the TIFIA program offers other advantages, such as the ability to lock in the interest rate well in advance of drawing down funds, the right to prepay the loan at any time without penalty, and the *potential* willingness of USDOT to accept more flexible terms, such as back-loaded debt service schedules and a junior claim on project revenues.

Investor Perspective: From the viewpoint of other lenders to the project, having TIFIA financing that may be structured on a functionally subordinate basis and that is conditioned upon the

⁴ While MAP-21 increased the legally-permissible TIFIA share of eligible project costs from 33% to 49%, USDOT has stated as a practical matter that applicants should not assume a share greater than 33%, due to demand for the program and other policy considerations.

senior debt receiving an investment grade bond rating strengthens the overall plan of finance—especially for lower-rated borrowers that otherwise might not have ready access to the capital markets.

Federal Perspective: TIFIA credit assistance is extended pursuant to the Federal Credit Reform Act, where the scored budgetary cost is based on a risk assessment of the estimated losses to the Federal government resulting from any unrecovered payment defaults or interest rate subsidies. The average risk-score to date under the TIFIA program has been approximately 10 percent of the face or par amount of loans made; in some cases the project-specific loan subsidy cost has been under 1 percent. This makes it a highly effective leveraging tool from a Federal budgetary perspective. Under an assumed 10 percent risk-score, the implied volume of the TIFIA program as authorized for FFY 2013 and 2014 by MAP-21 is approximately \$17 billion.

Railroad Rehabilitation and Improvement Financing (RRIF) Federal Credit Program

The RRIF program was enacted in 1998 as part of TEA-21 as a \$3.5 billion program, and subsequently reauthorized and expanded to \$35 billion under SAFETEA-LU in 2005. RRIF provides credit assistance to state and local governments, railroads, government-sponsored authorities and joint ventures that include a railroad partner. The direct loans (and potentially loan guarantees) may be used to acquire, improve, or rehabilitate intermodal or rail equipment or facilities.⁵

RRIF also can be used to refinance debt previously incurred for these purposes (such as a recent loan to Alameda Corridor Transportation Authority) and to establish new intermodal or railroad facilities. Unlike TIFIA, which is limited to 49 percent of eligible costs, RRIF can provide loans for up to 100 percent of a railroad project with repayment terms of up to 35 years and interest rates equal to the cost of borrowing to the Federal Government.

Project Sponsor Perspective: The RRIF program is similar to TIFIA in its ability to offer long-term loans at the U.S. Treasury rate (~3.75% today) for rail-related projects. Because many of the projects for freight railroads may not otherwise be eligible for tax-exempt financing, borrowing at the Treasury rate represents a reduction of 2.5% or more compared to conventional taxable financing (20 percent in present value terms). However, in contrast to TIFIA, RRIF has not received any appropriations from Congress to pay the “subsidy cost” (loss reserve), and the borrower is required to make an upfront cash contribution at financial close. The amount of the risk premium payment depends on the credit-worthiness of the loan, and has reportedly ranged between one and five percent of the face amount of the loan, based on substantial

⁵ As with TIFIA, RRIF borrowers prefer the lower rates and more flexible payment structure of direct loans versus loan guarantees.

over-collateralization of the loans in most cases. The payment of the upfront premium is a direct reduction to the present-value benefit that otherwise would be provided by the subsidized (Treasury-rate) loan. Therefore, in cases where a project (such as a freight rail transfer facility) is eligible for both the RRIF and TIFIA programs, the TIFIA program may provide a slightly lower effective borrowing rate.

Investor Perspective: To the extent that RRIF provides a majority or even all of the financing for a rail project, the investor perspective is not relevant. Otherwise, Federal financing through RRIF provides the same credit enhancement to the project's plan of finance as is conferred through TIFIA.

Federal Perspective: There is no scored budgetary cost for the loan activity, since the borrower pays a risk premium to cover the cost of the credit subsidy to obtain financing. As of September, 2013, RRIF loan agreements had been executed for 33 projects with an aggregate loan amount of \$1.7 billion. Approximately \$827 million (48 percent of the volume) was for 27 different freight rail projects, with the balance for passenger rail projects. The total freight and passenger loan volume thus far represents about five percent of the total authorized volume under the RRIF program.

State Infrastructure Banks

State Infrastructure Banks (SIBs) were first authorized by the NHS Designation Act of 1995 as a pilot program authorizing ten states to establish loan revolving funds for highway and transit projects. Congress in 1996 broadened the program to allow additional states to participate, and provided \$150 million of General Fund resources as seed capital. SAFETEA-LU further expanded the program, authorizing all states and U.S. territories to establish revolving funds eligible to be capitalized with Federal transportation funds apportioned in fiscal years 2005-2009.

SIBs are authorized to provide direct loans, loan guarantees, interest rate subsidies and other forms of financial assistance to state and local transportation projects. In most cases, SIB assistance takes the form of low-interest (1%-3%) loans. SIBs capitalized with Federal grants are required to establish separate accounts for highway, transit and rail purposes. To date, only Colorado and Pennsylvania have reportedly made loans for freight rail purposes; the volume has been small. For example, Pennsylvania's SIB annual report indicates that it has made \$107 million in total loans to 159 separate projects, but only five loans (totaling \$2.3 million) were for freight rail purposes.

Borrower Perspective: A SIB loan at 2% would be at least 1.5% lower than TIFIA or RRIF financing. However, SIBs are constrained in the amount of lendable funds they have.

Nationwide, it is believed that the 32 states (plus Puerto Rico) with Federally-authorized SIBS have capitalized their banks with approximately \$950 million of Federal and matching funds. Moreover, many of the loans are for shorter terms (e.g. 10 years) which may not be attractive for larger, longer-lived freight capital investments. Federal law does not authorize states to use their current Federal funds to continue capitalizing their SIBs. But even when they could do so, states historically have opted not to deposit limited Federal-aid grants into their SIBs, when they have so many other projects facing immediate funding needs. There were no reported state deposits of Federal-aid to any SIBS during the term of SAFETEA-LU (FFY 2005-2009)

Lender Perspective: If a SIB were willing to lend on a subordinate basis to senior lenders, it would help strengthen the creditworthiness of the senior loan, much in the same way a junior TIFIA loan could help attract senior lenders/debt investors.

Federal Perspective. Aside from the initial round of \$150 million of Federal capitalization grants initially made available in 1996, SIBs have not received any specific Federal funding. Rather, states must decide if they wish to direct a portion of their available Federal funds to deposit into the SIB. SIBs therefore entail no incremental scored budgetary cost beyond the general cost of Federal spending from the Highway Trust Fund.

Looking Ahead

Because of continuing constraints on government spending, it will be challenging to establish a large dedicated Federal grant program to assist freight infrastructure projects. Instead, I believe that finance subsidies through credit and tax code incentives may offer a more viable means of providing significant levels of assistance to major projects.

Credit program such as TIFIA and RRIF clearly can play a valuable role in facilitating financing for freight projects and programs. But many observers believe that Federal credit assistance could be provided more effectively if there were a stronger institutional platform, such as an independent government corporation. This special purpose entity would have an expert board of directors and staff drawn from industry whose *sole* purpose would be to evaluate, extend—and manage—credit assistance to those projects of national and regional significance providing the highest economic return to the nation.

The entity could operate under the Federal Credit Reform Act (FCRA), providing loans and loan guarantees similar to the current TIFIA and RRIF programs. It would have the staff resources, expertise and institutional focus to prudently yet expeditiously extend credit to major projects with public benefits. Because many goods movement projects span state lines, a national-level corporation would be much more effective than trying to establish bi-state or multi-state compacts to assist each freight initiative.

An additional way to expand incentives for infrastructure investment would be to provide subsidies through the tax code. Tax incentives avoid having the government assume contingent liability for loan performance (as is the case for Federal credit programs). In addition, the tax code can provide a deeper Federal subsidy if desired for those types of projects deemed particularly important from a public policy perspective. The budgetary cost of tax measures takes the form of foregone revenues (“tax expenditures”) and effectively is supported by the General Fund. Given that many major freight investments confer substantial benefits to the general public that can’t be “captured” as project revenues, indirect General Fund support may be appropriate. Moreover, the scored cost of tax code measures does not affect the Federal discretionary budget, where grant and credit assistance programs are funded. Rather, the tax expenditures are accounted for in the scoring of the Federal mandatory budget.

As noted above, the Administration’s FY2014 Revenue Proposal seeks to expand the PAB volume cap for highway and intermodal freight facilities from \$15 billion to \$19 billion. But given the narrow spread between tax-exempt PAB rates and taxable rates today (0.25%), and the view held by some Federal policymakers that expanding tax-exemption is an inefficient form of Federal subsidy, it might be worth exploring whether the Administration’s subsidized taxable bond option proposal could be broadened to include *any* freight facilities conferring public benefits—not just facilities currently eligible for tax-exempt financing, as is proposed. Under the Administration’s proposal, project sponsors would issue taxable rate bonds but receive an interest subsidy of 28 percent. This would effectively allow private project sponsors to borrow at rates similar to non-AMT governmental tax-exempt issuers, while attracting a broader range of investors, including pension funds, endowments and foreign investors, none of whom generally purchase tax-exempt bonds because of their own tax status.

An even more effective way to induce capital investment in infrastructure would be to establish a new class of qualified tax credit bonds for surface transportation. Qualified tax credit bonds are taxable-yield state and local debt obligations that receive a Federal subsidy designed to cover up to 100 percent of interest expense. Congress has authorized approximately \$32 billion of such bonds in recent years for schools, conservation and clean renewable energy purposes. For a project sponsor issuing long-term debt, a full Federal subsidy of interest is tantamount to receiving a 60 to 70 percent outright grant, in present value terms. Two companion bills were introduced with bipartisan sponsorship in June to establish a \$50 billion transportation tax credit bond program—H.R. 2534 and S. 1250—The Transportation and Regional Infrastructure Project (TRIP) Bonds Act. Either of these bills could serve as a vehicle for a freight infrastructure program.

Providing a volume cap on the amount of private activity bonds and tax credit bonds would give Federal policymakers greater certainty as to the fiscal cost to the government of offering the tax incentives. Because freight projects tend to be “lumpy” investments and have varying

degrees of public vs. private benefits, a formula-based allocation of issuance authority among the states is likely to prove inefficient. It would be more effective if a merit-based discretionary allocation approach could be used. The special purpose entity could perform the role of allocating volume cap to qualified projects that meet certain size and “significance” thresholds, with the bonds being issued at the state or local level.

Conclusion

In an era of constrained Federal budgetary resources, “innovative project finance” tools that draw upon a combination of credit and tax incentives can play an important role in advancing major freight transportation investments. Existing Federal credit programs such as TIFIA and RRIF might more effectively be offered through a stronger institutional platform, such as a new special purpose government corporation. The current PABs program perhaps could be made more cost-effective to borrowers as a taxable rate bond program with a 28 percent Federal interest subsidy. This program could be complemented by tax code measures such as TRIP Bonds or other similar proposals for qualified tax credit bonds, where the government provides tax credits to investors that cover most or all of the interest expense associated with long-term borrowing.

Collectively, these credit and tax enhancements could stimulate major new freight infrastructure investments with a relatively small Federal budgetary impact. At the same time, these new tools could remove pressure from existing Federal grant programs, which would continue to be focused on traditional and smaller transportation projects.

Thank you for the opportunity to appear before you. I would be happy to respond to any specific questions you may have.



“Funding the Nations Freight System”

Statement Presented to the Panel on 21st Century Freight Transportation
Committee on Transportation and Infrastructure
United States House of Representatives
October 10, 2013
American Road and Transportation Builders Association

Chairman Duncan, Representative Nadler, and all members of the panel, the more than 5,000 members of the American Road and Transportation Builders Association (ARTBA) applaud your continued work to seek out potential solutions to improve the efficiency and reliability of the nation’s multi-modal freight infrastructure network. While the jurisdiction of the House Transportation & Infrastructure (T&I) Committee covers nearly all critical transportation-related issues, few are as directly linked to the strengthening of the nation’s economy and the core federal responsibility in the transportation arena as goods movement.

The U.S. surface transportation network, anchored by the 46,000 miles of Interstate Highways, is the lifeblood that helps fuel U.S. economic growth. Interstate highways, however, are just one component of a multimodal network that delivers products from U.S. firms to domestic and international markets and brings imported goods to U.S. consumers.

The U.S. freight system is a clear success story, marked by significant milestones intertwined throughout the nation’s history. Major initiatives like the Erie Canal, Transcontinental Railroad and the Interstate Highway system are all crowning transportation achievements that have supported economic strength and prosperity for decades. However, we must ensure this success story continues to evolve, especially given the current challenges facing American firms in the global marketplace. Many developing nations, including China and India, continue to improve their freight networks dramatically while the U.S. freight transport system as a whole gets older, more-worn and in dire need of upgrade throughout.

Nowhere is this contrast more clear than on the U.S. Interstate Highway System where the costs of traffic congestion and inadequate physical conditions impose increasing costs on the U.S. economy and the daily lives of American citizens. In 2010, according to the Federal Highway Administration, more than \$16.0 trillion dollars of freight was shipped in the U.S. including \$13.0 trillion of domestic shipments and \$3.0 trillion of exports and imports. Two-thirds of the total, or \$10.8 trillion, was shipped by truck on the nation's highways. Another 17 percent, or \$2.7 trillion, involved multiple modes including trucks, which means trucks were

involved in 82 percent of all freight shipped in the U.S. in 2010. Rail, air, water and pipelines accounted for the remaining 18 percent of freight shipments.

The Federal Highway Administration estimates that the volume of freight shipments will more than double between 2010 and 2040 to almost \$39.5 trillion in constant dollars, with \$21.8 trillion of that carried by truck and \$10.3 trillion by intermodal combinations that include trucks. This growth will put enormous pressure on every element of the nation's transportation infrastructure, but the nation's highway system will take the major brunt.

The transportation construction industry can and will play a key role in meeting this critical challenge in the years to come. Not only will they be directly responsible for the planning, design and construction of this future multi-modal freight system, but the construction industry will continue to be a major user of the network to move the materials necessary to carry out these improvements. With that in mind, over the past several years, ARTBA members have repeatedly collaborated on various ideas on how to potentially address the coming freight network needs and improvements.

- Following the enactment of the 2005 SAFETEA-LU law, ARTBA members developed a proposal for the creation of a new federal program dedicated to improving U.S. goods movement, entitled "The Critical Commerce Corridors (3C) Program." The 3C proposal calls on the U.S. Department of Transportation (DOT), with input from Congress and stakeholder groups, to develop a strategic plan to identify and fund needed roadway infrastructure improvements to facilitate the flow of goods among the states and across U.S. borders. The investments made possible by this program would be supported through the establishment of a new freight-based user fee.
- ARTBA engaged Pricewaterhouse Coopers (PwC) to help develop a proposed "Highway Services Tax" that could generate \$5 to \$10 billion annually from roadway freight shipments to fund the 3C Program. This proposal for a new surface transportation freight user fee would build on the precedent already established by the existing Air Cargo Tax that generate revenues for the Airport and Airways Trust Fund to support needed aviation infrastructure improvements. A copy of the PwC report is attached.
- Subsequent to the enactment of the Moving Ahead for Progress in the 21st Century (MAP-21) surface transportation law in 2012, ARTBA members developed a comprehensive set of recommendations for the implementation of the new law and particularly its freight policy provisions. Among ARTBA's recommendations to the U.S. DOT are:
 - Utilize Regional Approach to Freight Planning. The U.S. DOT should organize the development of the National Strategic Freight Plan along regional boundaries to ensure the distinct freight challenges facing all parts of the country are uniquely addressed.

- Alleviate Roadway Bottlenecks. The National Strategic Freight Plan should encourage the development of specific projects and programs, such as dedicated truck lanes and identification of weight-limited bridges, to alleviate truck-related highway bottlenecks and improve overall system efficiency.
- Upgrade Intermodal Connectors. The National Strategic Freight Plan should include an appropriate focus on intermodal connectors (particularly those that are eligible for federal highway funds) to ensure a seamless goods movement network.
- Emphasize Access for Energy Production and National Security. Energy production and national defense are two clear federal priorities. As such, a national freight strategy must assure adequate mobility and access for activities related to these national priorities.
- Flexibility for System Users. Freight policy should not be utilized to pick modal winners and losers in the goods movement area or achieve non-transportation objectives. The role of the federal government is to ensure an adequate goods movement infrastructure network exists and to let system users decide which modes to utilize for their freight needs based on their unique economic circumstances.
- Ensure Accountability and Outcomes. Federal policy in the goods movement area should primarily focus on providing American businesses and communities with a comprehensive freight infrastructure network that provides them the opportunity and flexibility to achieve their economic goals.

MAP-21 includes a number of very positive freight policy provisions, but it does not provide states with explicit resources to fund freight improvement projects. A dedicated revenue stream to accompany a federal goods movement program would provide the tangible ability to implement MAP-21's National Strategic Freight Plan. As ARTBA suggested with its 3C proposal, improving the nation's highway freight network requires a comprehensive strategy, sufficient revenues, and a long-term federal commitment to support investments in infrastructure improvements.

The first step in the process of institutionalizing goods movement as a federal priority is the development of sufficient revenues that are dedicated to achieving this goal. Unfortunately, neither providing recipients of federal highway funds with the ability to use their apportionments for freight improvements nor creating a federal program without resources will deliver the infrastructure improvements necessary for an efficient and reliable national freight network.

While ARTBA, the National Surface Transportation Policy and Revenue Study Commission, the National Surface Transportation Infrastructure Financing Commission and others have identified a host of potential freight-related user fees that are viable options to support freight

improvement projects, such as the Highway Services Tax reference earlier, such a new revenue stream must be complemented with protections to ensure the generated resources are used for their intended purposes. Prior to 2011, separate budgetary firewalls existed for the Highway Trust Fund's Highway and Mass Transit Accounts to guarantee resources credited to these accounts were used solely for federal-aid highway and public transportation improvements. Reinstating these assurances and applying them to any freight revenue stream would provide needed certainty for project owners and assure those paying the fees that they will be direct beneficiaries of future federal investments in freight improvement projects.

In addition to a dedicated source of freight-related user fee revenues, a serious effort to improving U.S. goods movement demands the creation of a specific freight program. While MAP-21's National Freight Strategic Plan and incentives for freight-related projects are positive first steps, advancing multi-year freight projects and plans requires a long-term federal commitment. Such a commitment can only be achieved through a permanent surface transportation freight program. A separate federal goods movement program, as with the ARTBA 3C proposal, could both support investments in nationally and regionally significant freight improving capital projects and serve as a catalyst to integrate operational and technical advances that also ease the flow of goods in and out of the U.S.

In summary, we urge the members of the special panel to recommend to the full committee that it endorse a two-part strategy to improve the flow of goods throughout the U.S. The first component of this approach would be the dedication of new revenues to support the freight-related infrastructure improvements identified in the National Strategic Freight Plan. To provide the necessary structure, prioritization and oversight of these new investments, a new federal goods movement program should be created. The combination of new resources with a new freight-specific program would yield goods movement efficiencies that substantially enhance U.S. economic competitiveness in the global marketplace.

Again, ARTBA commends members of the panel for the leadership you have shown in addressing this critical issue and we look forward to continuing to work with you to improve the effectiveness and reliability of the nation's surface transportation freight network.

Thank you for your consideration of ARTBA's recommendations in this area.

**Budgetary Impact of
Highway Transportation Services Tax**

Prepared for:

**American Road and Transportation Builders
Association**

June 2009

Budgetary Impact of Highway Transportation Services Tax

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Executive Summary

The American Road and Transportation Builders Association ("ARTBA") has called for the development of a surface transportation system for freight --the Critical Commerce Corridors, or 3C, system-- that would add new capacity for commercial users of the nation's highways. The system would be funded through a dedicated revenue source.

One revenue source under consideration would be a new federal excise tax on the value of transportation services provided by trucks with gross vehicle weight ratings (GVWRs) of more than 26,000 pounds (DOT Class 7 or Class 8 vehicles). The highway transportation services tax would be in addition to federal Highway Trust Fund taxes currently paid by these commercial vehicles. ARTBA has engaged PricewaterhouseCoopers LLP ("PwC") to describe the structure for such a tax and analyze its budgetary impact.

ARTBA requested that we measure the impact of a one-percent and two-percent highway transportation services tax on the federal budget. Assuming such a new tax would be effective beginning October 1, 2010, PwC estimates that imposing the tax at a one-percent rate would generate gross excise tax receipts of \$65 billion over the fiscal year 2010-2019 period. Net federal revenues are estimated to increase by \$48.8 billion over the budget period after accounting for an offsetting reduction in federal income tax receipts. A two percent tax would increase net revenues by \$94.1 billion over the 2010 to 2019 period.

Estimated Revenue Effect of Proposed Federal Highway Transportation Services Tax (Fiscal years; billions of dollars)

Item	2010	2011	2012	2013	2014	2010-2014	2010-2019
One-Percent Tax							
Gross Excise Tax Collections	0	\$5.8	\$6.3	\$6.6	\$6.9	\$25.6	\$65.0
Net Federal Revenues	0	\$4.3	\$4.7	\$4.9	\$5.2	\$19.2	\$48.8
Two-Percent Tax							
Gross Excise Tax Collections	0	\$11.2	\$12.1	\$12.7	\$13.4	\$49.3	\$125.5
Net Federal Revenues	0	\$8.4	\$9.0	\$9.5	\$10.0	\$37.0	\$94.1

Source: PricewaterhouseCoopers calculations.

In preparing our estimates, PwC has been asked by ARTBA to assume that the proposed highway transportation services tax would be structured similarly to the current excise tax on air cargo services (see Internal Revenue Code Sec. 4271). Under such a structure, purchasers of taxable transportation services would be liable for the tax, and providers of the services would collect and remit it on quarterly excise tax returns. The Internal Revenue Service ("IRS") would administer the tax similarly to the manner in which it administers other excise taxes.

The tax would apply to the value of transportation services provided by truck operators, and would not apply to any accessorial charges for nontransportation services such as packing, unpacking, and crating. Fees charged by brokers or other parties not in the business of ground transportation would not be subject to tax. If an operator charges a flat rate for moving cargo using several different modes of transportation (air, water, ground), the tax would apply to the portion of the fee attributable to the truck segment of the trip.

As specified by ARTBA, the highway transportation services tax would differ from the air cargo tax in certain ways. Companies owning or leasing trucks used to transport their own products

would be subject to the tax based on the fair market value of such transportation services. The tax also would apply to the domestic portion of truck transportation costs for exported goods.

The estimates provided in the table above assume that truck transportation costs remain relatively stable over the projection period, e.g., that there will not be any sharp spikes in fuel costs that significantly reduce the demand for trucking services. The estimates also incorporate certain behavioral responses.

I. Introduction

The American Road and Transportation Builders Association ("ARTBA") has called for the development of a surface transportation system for freight--the Critical Commerce Corridors, or 3C, system--that would add new capacity and support other initiatives that improve the flow of goods for commercial users of the nation's highways. The system would be funded through a dedicated revenue source from a new freight-related user fee/tax.

ARTBA has engaged PricewaterhouseCoopers LLP ("PwC") to delineate the structure for such a tax and analyze its budgetary impact. The proposed new federal excise tax would be assessed on the value of transportation services provided by trucks with gross vehicle weight ratings (GVWRs) of more than 26,000 pounds (DOT Class 7 or Class 8 vehicles).

This analysis provides a description of the proposed tax and a summary of its potential budgetary impact. The next section describes the proposed tax, the third section provides our baseline projection of commercial trucking activity, and the final section provides our revenue estimates for the tax.

II. Description of Highway Transportation Services Tax

ARTBA has called for the development of a dedicated surface transportation system for freight--the Critical Commerce Corridors, or 3C, system to establish federal leadership to address the growing national challenge of freight shipments.¹ The system would be funded through a dedicated revenue source. One revenue source under consideration by ARTBA would be a new federal excise tax on freight transportation services.

This tax would be imposed on the value of transportation services provided by trucks with gross vehicle weight ratings over 26,000 pounds (Class 7 and Class 8 vehicles). These vehicles are predominantly involved in the transportation of interstate commerce and would benefit from alleviating highway congestion. Purchasers of the transportation services would be liable for the tax, which would be collected and remitted to the U.S. Treasury by truck operators. Companies owning or leasing trucks used to transport their own products also would be subject to tax based on the fair market value of the transportation services.

These vehicles currently are subject to excise taxes dedicated to the Highway Trust Fund, including motor fuels taxes and heavy vehicle use taxes. The highway transportation services tax would be in addition to those taxes.

The proposed highway transportation services tax is similar to the existing air cargo tax, which is imposed on air freight shipments to generate revenues to support the federal aviation system.

Specifications

The table below summarizes specifications of the tax (see **Appendix A** for a more detailed description).

¹ Details of this proposal are available at <http://www.artba.org/advocacy/government-affairs/safetea-lu-and-critical-commerce-corridors>.

Table 1. Specifications for Highway Transportation Services Tax

Issue	Explanation
Administration	The tax would be enacted as part of the Internal Revenue Code and administered by the IRS under Code provisions relating to federal excise taxes.
Application of Tax	The tax would apply to the value of highway transportation services.
Liability for tax	The purchaser of the highway transportation services would be liable for the tax.
Collection and Remittance Responsibility	The tax would be collected and remitted to the U.S. Treasury by the provider of taxable highway transportation services.
Taxable highway transportation services	In general, taxable highway transportation services would be defined as the movement of property within the United States in a truck with gross vehicle weight rating over 26,000 pounds (Class 7 and Class 8 trucks). Transportation that occurs outside of the United States (the 50 States and the District of Columbia) is not subject to tax. An amount would be treated as paid for taxable highway transportation services if it is directly related and integral to the cost of providing such services, including separately stated charges for fuel and other items.
Self-provided and related-party transportation services	If taxable highway transportation services are self-provided or provided to a related party, the tax would be imposed on the value of the services.
Accessorial services	In general, accessorial services, such as warehousing and storage, packing and unpacking, sale of insurance coverage, and rental of containers, would not be subject to tax if separately stated, unless the services can only be provided by the carrier, either directly or subcontracted, and all who use the service are directly or indirectly charged for it.
Freight forwarders and shipping agents	Amounts received by freight forwarders and shipping agents that arrange but do not provide taxable highway transportation services are not subject to tax. Amounts such persons pay for taxable highway transportation services are subject to tax under the general rules.
Multimodal transportation services	If an amount paid for transportation services includes both taxable highway transportation services and other modes of transportation, the tax would be imposed only on the value of the taxable highway transportation services.
Exemption	Transportation services provided by federal, state, and local governments and instrumentalities thereof would be exempt from the tax unless the transportation services are provided for hire, such as by the United States Postal Service.
Filing Requirement	IRS Form 720, Quarterly Federal Excise Tax Return, would be revised to include the new highway transportation services tax.

Comparison to current tax on air cargo services

The federal government currently imposes an excise tax on air cargo services. The structure of this tax would serve as a model for the proposed highway transportation services tax.

The air cargo tax is imposed at a rate of 6.25 percent on amounts paid for the transportation of property by air, with proceeds deposited in the Airport and Airway Trust Fund. The tax is part of the Internal Revenue Code and is administered by the IRS.

The air cargo tax applies to transportation services provided by operators that are directly related and integral to the transportation of the property. It does not apply to any accessorial charges for tasks such as packing, unpacking, and crating. Fees charged by brokers, or other parties not in the business of air transportation, are not subject to tax. If an operator charges a flat rate for moving cargo using several different modes of transportation (air, water, ground), the tax only applies to the portion of the fee attributable to the air segment of the trip.

Certain elements of the proposed highway transportation services tax would differ from the existing air cargo tax. For example, transportation of property that begins or ends outside the United States is not taxable under the air cargo tax. The highway transportation services tax would apply to all services provided within the United States. For international ground shipments (such as to or from Mexico or Canada), the tax would apply with respect to the portion of the trip in the United States. Truckers currently track interstate mileage as part of the International Fuel Tax Agreement, which is used to allocate state fuels taxes. Such information could be used to allocate shipping costs between the United States and foreign countries.

The air cargo tax does not apply to services provided by private (not-for-hire) airplanes. The highway transportation tax would apply to services provided by both for-hire and private fleets. Companies with private fleets would be taxable on the value of the shipping activities of Class 7 and Class 8 trucks. We have assumed that the Secretary of the Treasury would issue regulations under which companies would determine the value of shipping. The Secretary of the Treasury currently has authority to issue regulations on valuing related-party transactions for purposes of the income tax under Section 482 and for purposes of the air cargo tax under Section 4261 of the Internal Revenue Code.

Air cargo carriers pay a separate tax on aviation gasoline or jet fuel usage. Similarly, vehicles subject to the highway transportation services tax would continue to pay current motor fuel taxes and heavy vehicle use taxes.

Appendix B has a more detailed comparison of the highway transportation services tax and the air cargo tax.

III. Baseline Projection of Industry Revenues

We projected trucking industry revenues (i.e., amounts paid for trucking services) based on the most recent data available from U.S. government sources and private sector projections. The Census Bureau conducts several surveys that provide information on the trucking industry: the Vehicle Inventory and Use Survey ("VIUS"), the Economic Census, the Services Annual Survey, and the Commodity Flow Survey. The American Trucking Association ("ATA") publishes a projection of trucking industry revenues for both the for-hire and private trucking fleets through 2020.

Vehicle Inventory and Use Survey: Discontinued in 2002, this survey collected information on the private and commercial trucking fleet. The Census Bureau makes a detailed data set available that we used to tabulate characteristics of the trucking fleet. Based on these tabulations, we estimate that Class 7 and Class 8 trucks were responsible for 93 percent of the value of transportation services provided by trucks in the U.S. economy. We used this ratio to determine the share of total industry revenues that would be subject to tax. We also found that less than 0.3 percent of ton-miles for U.S. trucks was attributable to travel in Mexico and Canada. Because only domestic services would be taxable, we reduced the industry revenues by 0.3 percent to exclude the value of services for U.S. truck transportation in Mexico and Canada.

Economic Census: The Census Bureau collects information on the characteristics of U.S. businesses. Because much of the 2007 data are not available yet, we relied on 2002 data, the most recent detail available. The Product Line report of the Economic Census provides a breakdown of the different types of revenues collected by industry. Based on this information, we estimated that accessorial services, which would not be subject to tax under the proposal, represented five percent of total industry revenues.

Other Government Data Sources: We used the Commodity Flow Survey and the Services Annual Survey to confirm data from other sources. The Commodity Flow Survey, conducted every five years, provides information on the size of the private trucking fleet compared to the for-hire fleet. The Services Annual Survey, conducted every year, provided additional information on the value of trucking services crossing the borders with Mexico and Canada.

American Trucking Association Projections: The ATA works with IHS Global Insight to project trucking industry revenues through 2020 by segment, including private trucks, less-than-truckload for-hire trucks, and truckload for-hire trucks. The projections are derived from a broader economic model based on independent economic projections. The ATA projections reflect certain augmentations to Census data, such as the amount of trucking activity that occurs in separate industry codes. We used the ATA data to inform our projection of overall trucking revenues, which includes both for-hire and private trucks.

We developed a projection of trucking industry revenues based on the most recent Congressional Budget Office macroeconomic forecast. Consistent with the ATA forecast, we assume that trucking revenues grow slightly faster than gross domestic product ("GDP") over the 2010-2016 period and matches GDP growth in 2017 and beyond. The for-hire share of the industry increases over the 2010-2014 period and retains the 2014 split in 2015 and later.

Table 2 below presents our estimates of trucking revenues over the projection period for all truck classes. These revenues include the value of accessorial services and the value of services attributable to truck transportation in Canada and Mexico.

Table 2. Baseline Projection of Trucking Revenues, Calendar Years 2010-2019

Item	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Billions of Dollars										
Truck Revenues	\$677	\$713	\$753	\$794	\$835	\$873	\$912	\$949	\$986	\$1,023
For-Hire	388	412	439	466	494	517	540	562	583	606
Private	289	301	314	328	341	356	372	387	402	418
Annual Growth Rate										
Truck Revenues	4.5%	5.3%	5.5%	5.4%	5.2%	4.5%	4.5%	4.0%	3.9%	3.8%
GDP	3.8%	4.5%	4.7%	4.6%	4.4%	4.1%	4.1%	4.0%	3.9%	3.8%

Source: PricewaterhouseCoopers calculations.

IV. Budgetary Impact of Highway Transportation Services Tax

We estimated the potential impact of the proposed highway transportation services tax based on projection of industry revenues, adjusted for behavioral responses to the new tax. Our methodologies are generally consistent with those used by the revenue estimating staffs of the Joint Committee on Taxation and the Congressional Budget Office. Our results reflect three behavioral responses to the new tax.

First, we assume that an increase in the cost of truck transportation services would lead to a lower tax base due to a reduction in demand and substitution effects, including the use of alternative forms of transportation, such as air, rail, or water. For our estimates, we assume that a one-percent increase in the cost of truck transportation would cause a one-percent decline in trucking volume, or a price elasticity of -1.0.² Therefore, a one-percent tax would lower taxable revenues by the same one percent.

Second, we have assumed that approximately one-third of shipments currently moved in Class 7 trucks would shift to trucks in lower weight classes to avoid the tax. This response decreases the tax base by slightly more than one percent.

Third, we have assumed that, as is true for all taxes, there would be some intentional noncompliance with the new tax. By separating liability for the tax (which is imposed on the purchaser of the transportation services) from the collection and remittance of the tax (which is the responsibility of the shipper), the tax design should discourage evasion, because both the shipper and operator would risk penalties.

We have assumed that tax evasion would be concentrated among smaller-scale operators that likely would not be subject to the same level of IRS examination as larger operators. It is assumed that some smaller-scale operators would collect the tax from customers but not remit it to the IRS. In some cases, there also could be collusion between the operator and the customer in tax evasion. Overall, we assume that noncompliance will lower tax revenues by 2.5 percent.³

We have made three other adjustments to the estimate to be consistent with Congressional scoring conventions.

First, we have assumed that GDP would be unaffected by enactment of the proposed tax. As a result, the overall level of economic activity is unchanged, even though some of our behavioral assumptions reflect changes in the composition of economic activity.

² The price elasticity of demand measures the response of quantity to changes in price. We reviewed a variety of published articles and found that the elasticity ranged from as low as -0.25 to as high as -2. We have adopted an elasticity of -1.0 as a central estimate.

³ We prepared our estimates under the assumption that IRS income tax noncompliance data is representative of excise tax noncompliance. Smaller-scale operators (with 5 or fewer trucks) represent approximately half of the trucking fleet. If it were not borne by customers, a one-percent highway transportation services tax would be equivalent to a 13-percent levy on the pretax net income of small operators. Using IRS noncompliance data, we derived an implied elasticity of tax evasion of -0.4, meaning that for each 10-percent increase in a tax relative to pretax net income, the taxpayer would fail to report four percent of pretax net income. This estimate is based on an estimated 9 percent underreporting of income subject to substantial reporting (see U.S. Department of the Treasury, *Reducing the Federal Tax Gap*, August 2, 2007) and the average tax rate on such returns of 22 percent. For smaller-scale operators, we estimate that the new tax would cause a five percent avoidance in reporting, meaning the tax would not be collected on five percent of the tax base. Because smaller-scale operators make up slightly less than half of the total tax base, we estimate that overall noncompliance would reach 2.5 percent each year.

Second, we have applied a 25-percent income tax offset to the gross excise tax collections. With a fixed GDP, an increase in indirect business taxes would reduce national income and thus federal income tax receipts.⁴

Third, we have converted calendar-year liability estimates to fiscal-year receipts because the federal government's accounting year starts on October 1 and revenues are accounted for in the budget on a cash receipts basis.

The specifications for the new tax provide that the tax will begin 12 months from the date of enactment to allow time to establish the required regulatory and administrative structures. We assume that the legislation will be enacted on October 1, 2009 so the government would begin collecting the new tax on October 1, 2010 (the beginning of federal fiscal year 2011).

Table 3 below shows the estimated federal revenue effect of a one-percent and two-percent highway transportation services tax. Assuming it would be effective on October 1, 2010, the one-percent tax would increase federal excise taxes by \$25.6 billion over the fiscal year 2010-2014 period and by \$65 billion over the 2010 to 2019 period. After offsetting income tax reductions, net federal revenues would increase by \$19.2 billion and \$48.8 billion over the 2010-2014 and 2010-2019 periods, respectively. A two-percent tax would increase federal revenues by \$94.1 billion over the 2010 to 2019 period.

Table 3. PwC Estimates of Proposed Highway Transportation Services Tax
(By fiscal year, in billions of dollars)

Item	2010	2011	2012	2013	2014	2010-2014	2010-2019
One-Percent Tax							
Gross Excise Tax Collections	0	\$5.8	\$6.3	\$6.6	\$6.9	\$25.6	\$65.0
Net Federal Revenues	0	\$4.3	\$4.7	\$4.9	\$5.2	\$19.2	\$48.8
Two-Percent Tax							
Gross Excise Tax Collections	0	\$11.2	\$12.1	\$12.7	\$13.4	\$49.3	\$125.5
Net Federal Revenues	0	\$8.4	\$9.0	\$9.5	\$10.0	\$37.0	\$94.1

Source: PricewaterhouseCoopers calculations.

Thus, over the 10-year period, assuming that gross excise tax collections are fully dedicated to road construction, the one-percent tax could fund up to \$65 billion of goods movement improvements. The two-percent tax could fund up to \$125.5 billion of these projects.

Caveats

The revenue estimates in this report reflect the following additional assumptions:

- The trucking sector grows faster than GDP over the 2010-16 period, based on the relative stability in oil prices over the period. If oil prices increase significantly, whether through instability in the market or the impact of carbon emission control legislation, the trucking sector could see less growth, and the proceeds from the tax would be lower.⁵

⁴ For additional discussion, see "The Role of the 25 Percent Revenue Offset in Estimating the Budgetary Effects of Legislation," Congressional Budget Office, January 13, 2009.

⁵ The Energy Information Administration projects that oil prices will increase approximately 1.4 percent per year through 2030. The American Trucking Association estimated a similar growth rate in its projection.

- The costs of other forms of transportation also remain stable. If air, rail, or water transportation costs change significantly over the projection period, the competitiveness of truck transportation could change, affecting tax collections.
- Some of the data on which we have relied for our estimates are from 2002, which are the most current data available. If certain industry characteristics have changed, some of the relationships we used in our model could be outdated.
- The value of services provided by private trucking fleets is estimated to comprise approximately half of the market. This estimate is consistent with government and private sector estimates of the total revenues attributable to private fleets.
- Behavioral responses are based on limited information, including estimates from other sectors.

Appendix A. Detailed Specifications of Highway Transportation Services Tax

In general. A federal excise tax would be imposed on amounts paid for taxable highway transportation services equal to [] percent of the amount paid. The tax would be enacted as part of the Internal Revenue Code and administered by the Internal Revenue Service, pursuant to the administrative rules generally applicable to facilities and services excise taxes provided in Chapter 33 of the Code.

Tax liability and collection. The tax would be imposed on the purchaser of taxable highway transportation services, but collected and remitted to the U.S. Treasury by the provider of the services.

Taxable highway transportation services. In general, taxable highway transportation services would be defined as the movement of property within the United States in a truck with gross vehicle weight rating over 26,000 pounds. Taxable highway transportation services include layover or waiting time and back haul services. As under the air cargo excise tax, transportation that occurs outside the United States (the 50 states and the District of Columbia) is not subject to the tax. An amount would be treated as paid for taxable highway transportation services if it is directly related and integral to the cost of providing such services, including separately stated charges for fuel and other items.

Self-provided and related-party transportation services. In the case of highway transportation services that are self-provided or provided to a related party, the tax would be imposed on an amount that is not less than the value of taxable highway transportation services, as determined pursuant to regulations issued by the Secretary of the Treasury. Related parties are two or more persons, organizations, [governmental entities], trades or businesses (whether or not incorporated, organized in the United States, or affiliated) owned or controlled directly or indirectly by the same interests. The Secretary is granted similar authority under Internal Revenue Code sec. 482 with respect to income tax administration and under section Internal Revenue Code sec. 4261(e)(3)(C) with respect to the air ticket tax.

Accessorial services. The tax is intended to apply only to services directly related and integral to the highway transportation of property and not to other ancillary services that may be provided by a carrier. In general, accessorial services, such as warehousing and storage, packing and unpacking, sale of insurance coverage, and rental of containers, are not subject to tax if separately stated, unless the services can only be provided by the carrier, either directly or subcontracted, and all who use the service are directly or indirectly charged for it.

Freight forwarders and shipping agents. Amounts received by entities that arrange but do not provide taxable highway transportation services would not be subject to tax. Amounts paid by these entities for taxable highway transportation services would be subject to tax under the general rules. Similar rules apply in the administration of the air cargo excise tax are intended to limit the tax to amounts paid for actual transportation of property as distinguished from services provided by an agent that arranges transportation services for a shipper but does not itself transport cargo. In these instances, the payment and collection of the transportation services tax would be a component of the transaction organized by a third party, but the purchaser and provider responsibilities would remain the same as if no external party were involved.

Multimodal transportation services. If the amount paid for transportation services includes both taxable highway transportation services and other modes of transportation, the tax would be imposed on the value of the taxable highway transportation services, as determined pursuant to

regulations issued by the Secretary. The IRS has developed administrative procedures for apportioning amounts received for multimodal transportation services for purposes of administering the air cargo excise tax.

Exemption. Transportation services provided by federal, state, and local government and instrumentalities thereof would be exempt from the highway transportation services tax unless the transportation services are provided for hire, such as by the United States Postal Service.

Regulations. The Secretary would issue regulations as may be needed to carry out the purposes of this tax, including procedures for determining the value of taxable highway transportation services and the time when payment for transportation is deemed to occur in cases where payment is for less than full value or where payment covers both taxable and nontaxable services (e.g., multimodal transportation or transportation that crosses international boundaries). Such procedures for determining the value of taxable highway transportation services could include the promulgation of standard mileage rates and cost-based allocation. The Secretary would issue guidance regarding the valuation of taxable highway transportation services within 12 months of the date of enactment.

Transfer of funds. Amounts equivalent to the revenues received by the Treasury from the tax on highway transportation services shall be appropriated to the Commerce Corridors Account of the Highway Trust Fund during the same time periods and under the same conditions as the section 4081 tax (on gasoline, diesel fuel and kerosene) is appropriated to the Highway Trust Fund.

Filing Requirement. IRS Form 720, Quarterly Federal Excise Tax Return, would be revised to include the new highway transportation services tax. Current excise tax regulations generally require taxpayers to remit payments on a semimonthly basis. However, if quarterly tax liability is under \$2,500, taxes are payable with the quarterly return. Additional information could be collected through annual filings for the federal Heavy Highway Vehicle Use Tax Return (on Form 2290) for Class 8 trucks weighing more than 55,000 pounds. Information from current filings made to State governments on travel by State under the International Fuel Tax Agreement (IFTA) could also be used. These filings typically are made on a quarterly basis.

Effective date. The tax would be effective for transportation services provided in or after the first month that begins on or after the date that is 12 months after the date of enactment.

Appendix B. Comparison of Air Cargo Tax and Highway Transportation Services Tax

Option	Air Cargo Tax (Sec. 4271)	Highway Transportation Services Tax
Administration of tax	Internal Revenue Service (IRS)	Same as air cargo tax
Modes covered by tax	Commercial air cargo	Commercial road freight
Vehicles covered by tax	All airplanes utilized in the business of providing air cargo service	Commercial heavy trucks (GVWR of Class 7 and Class 8)
Private (not-for-hire) transportation services	Exempt from air cargo tax (private operators must pay separate excise tax on fuel)	Non-transportation companies with their own trucking operations are subject to tax.
Treatment of international shipments	Air transportation of property that begins or ends outside of the United States is not taxable. Transportation of property in the process of exportation is not taxable.	Tax applies to the portion of travel within the US for all operators, regardless of nationality. Non-US travel by US operators would be exempt from tax.
Treatment of accessorial charges	Services are taxable if they only can be provided by the carrier. All amounts are taxable unless separately stated on invoice. See: S. Rep. No. 91-706 91st Cong., 2d Sess., 1970-1 C.B. 386 at 395; Rev. Rul. 71-398, 1971-2 C.B. 373.	Same as air cargo tax
Treatment of contracts and subcontracts	Operator is responsible for collecting tax on the value of services, unless it is under a contract to another operator who is compensated by a third party. See Facilities and Services Excise Tax Regulation § 49.4261-7(h).	Same as air cargo tax
Fees and commissions charged by shipping agents and freight forwarders	Fees and commissions not subject to tax. See Facilities and Services Excise Taxes Regulation § 49.4271-1(b)(3).	Same as air cargo tax
Bundled transportation services, such as multi-modal transportation	Tax imposed on portion of trip Secretary has the authority to establish rules on allocation.	Same as air cargo tax
Liability for tax and collection responsibility	Payer is liable for tax and operator is responsible for collection and remittance. See IRC § 4271.	Same as air cargo tax
Exemptions	The value of services on small aircraft (6,000 pounds or less) with nonestablished routes and payments to affiliated groups are exempt from the tax. See IRC § 4281.	Commercial trucks with gross vehicle weight rating of 26,000 or less, and government-provided transportation, unless it is for-hire (e.g., Post Office shipments are taxable) are exempt from tax.

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