A Funding Compromise Can Set Transportation on Path Toward Sustainability

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EXECUTIVE SUMMARY

President Dwight D. Eisenhower envisioned building a debt-free Interstate Highway System that would provide infrastructure to support the national interests. In recent years, federal transportation funding has both incurred substantial debt and expanded its reach far beyond supporting infrastructure of national significance.

Against the backdrop of continuing uncertainty around Congressional passage of a new federal transportation bill, a number of proposals have been circulated in the past year to address aspects of securing or reforming state and federal transportation funding. This white paper assembles the most prominent of these proposals and reviews them in the context of sustainable transportation, in particular, these three dimensions: funding sustainability, environmental sustainability, and social justice.

The result of this review is a set of funding recommendations that borrow individual features from many of the publicly disseminated proposals. The combination represents a compromise across the political spectrum, and will help to create a sustainable federal transportation funding system.

The funding recommendations include a one-time use of corporate taxes to allow states to reduce the backlog of maintenance needs. The federal gas tax would be continued and indexed to inflation. Greenhouse gas (GHG) reduction targets would be set for each state and states would be allowed to 'buy down' their gas tax as they reduce their GHG emissions. States would be given pricing and tolling authority and have the authority to implement a vehicle miles traveled (VMT) tax. States would also assume responsibility for all roads. Taken together, these strategies would set transportation on the path toward sustainability.

A Federal Funding Plan for Sustainable Transportation

- One-time corporate taxation of offshore assets to address pressing maintenance needs
- Continuation of the current gas tax with one-third of generated revenue directed toward nationally strategic transportation infrastructure and the remaining approximately $25 billion directed to states for use in reducing greenhouse gas (GHG) emissions
- State targets for GHG reductions with an opt-out option for the gas tax when and if GHG reductions are achieved
- State initiated, operated, and directed vehicle miles traveled (VMT) tax for transportation improvements and maintenance with no federal intervention
- State operated pricing approved for all roadways
- An earned income transportation tax credit for low-income families

"We need to save the Highway Trust Fund."
Barbara Boxer, February 2014

Introduction

The Highway Trust Fund (HTF), which is used to fund transportation in the United States, has been in the red since 2001.[1] There is no lack of ideas for new, revised, and enhanced funding streams to address the HTF shortfall and meet future transportation needs. Commissions have been formed, reports solicited, and publicity battles waged. While there are sometimes significant points of disagreement about the viability and feasibility of individual funding mechanisms, there is virtually no disagreement that the current funding arrangement is inadequate to tackle the infrastructure challenges we now face. Some would also argue that if the aim is sustainability, our current system of funding is simply broken.

Scope of the Paper

This white paper assembles a wide range of proposals that have been proffered as a means of addressing the various aspects of securing or reforming transportation funding. The proposals share many common principles and concepts and have a few key differences. Here, we will consider the various proposals across three dimensions of sustainability: funding sustainability, environmental sustainability, and social equity. With respect to environmental sustainability, we pay particularly close attention to the implications of funding strategies for reducing greenhouse gas (GHG) emissions, which contribute to climate change. The current funding discussions present an important opportunity for transitioning to a low- to zero-carbon transportation system. Finally, it is important to note that certain issues associated with financing (e.g., the advantages and disadvantages of public-private partnerships) are not discussed in this paper.

Background

The HTF is divided into two accounts: the Highway Account and the Mass Transit Account. Most of the obligations committed through these accounts are multi-year capital projects. This means that for any given year, most of the outlays from the HTF are the result of contract authority obligated in previous years.[2] Because existing obligations now exceed the available HTF funds, most of the current obligations rely on tax revenues that are still to be collected.[3]

In fiscal year 2010, revenues to the HTF totaled approximately $35 billion, with about $24.1 billion from gasoline and $8.1 billion from diesel fuel sales, comprising about 90% of the revenues entering the HTF.[4] HTF shortfalls have increased from year to year; the Congressional Budget Office (CBO) has estimated that at current spending levels a total shortfall of approximately $110 billion will exist by 2022.[5,6]

Since 2008, transfers from the General Fund, totaling $54 billion, have been repeatedly used to ensure that the HTF maintained a positive balance. This practice raises not only the issue of long-term funding sustainability, but also the issue of equity. When funds are transferred from

the General Fund, non-users are, in effect, paying for road use; this is particularly problematic for low-income individuals,[7] many of whom derive substantive benefit from transit rather than from driving.

At the beginning of FY 2014, the Highway Account had approximately $1.6 billion in cash and the Mass Transit Account had approximately $2.5 billion in cash.[8] Additional funds of $9.7 billion (Highway Account) and $2 billion were transferred from the General Fund shortly after the fiscal year began. The latest CBO January 2015 baseline report indicates a shortfall of approximately $55 billion in the Highway Account and $18 billion in the Mass Transit Account by 2020.[9]

The federal gasoline tax was last raised in 1992, leaving the HTF to lose considerable purchasing power to inflation and rising construction costs. The current gas tax of 18.4 cents per gallon is worth approximately 60% of what it was when set in 1992; had it been indexed to inflation over that period, it would now be 31.1 cents per gallon.

The shortfalls relative to the current spending levels are the result of several trends. First, the amount of tax revenue is decreasing over time as a result of increasing vehicle fuel efficiency. Corporate Average Fuel Economy standards require auto manufacturers to increase fleet-wide fuel efficiency of new passenger vehicles to 55.8 mpg by 2025, roughly double that of the 2010 standards. The increase in fuel efficiency translates to lower gas tax revenue. Second, the gas tax was not indexed to inflation, resulting in a loss of purchasing power. However, even if the gas tax had been indexed to inflation, it would have still eroded some over time due to increases in construction costs. Since the early 2000s, the Construction Cost Index has been rising faster than the Consumer Price Index (CPI).[10] Finally, estimates of the funds needed have also grown over time as states have reported ever higher lane miles of roadway in poor condition.[11] Many argue that the increasing proportion of poor roadways arises from deferred maintenance.[12] Continuing to defer maintenance has important implications because the savings that can accrue as a result of preventive maintenance are estimated to be substantial; pavement life can be extended as much as 10 to 15 years with regular maintenance.[13] In sum, the current—and projected—shortfalls in the HTF reflect the combined influences of not indexing the fuel tax, construction costs rising faster than inflation, and deferred maintenance trends.

The Obama Administration has proposed a six-year, $478 billion transportation reauthorization bill.[14] This bill would raise an additional $238 billion for the HTF using a 14% one-time tax on untaxed foreign earnings by U.S. companies. The Highway Account would increase by 29% and the Mass Transit Account would increase by approximately 76% over FY 2015 levels.[15] Annual spending would be about twice the current amount, $80 billion.

The administration's proposal addresses the deferred maintenance issues, pushes states to reform roadway spending, and includes much higher levels of transit spending. It does not address the structural funding issues with the HTF nor the long-term maintenance and preservation priorities. Moreover, the proposed transit spending would largely go to fixed rail

systems, leaving aside both short- and long-term operational issues associated with funding transit systems. Finally, the proposal does not address climate change; this is particularly problematic, given that transportation GHG emissions continue to increase.

Major Funding Mechanisms

A number of think tanks, commissions, and assorted experts have weighed in with assessments regarding the viability of various funding mechanisms. Much of the dialogue and the available proposals can be organized into three categories: 1) increase the gasoline excise tax; 2) implement strategies that replace and/or augment the gas tax, and 3) initiate strategic reforms that will make a tax increase of any type unnecessary.

Increase the Gas Tax

Over the last eight to ten years, there have been a number of calls for raising the current gas tax, with suggestions ranging from 5 cents per gallon to a nearly doubling of the current 18.4 cents per gallon tax. In 2006, the National Surface Transportation Policy and Revenue Study Commission's (NSTPRSC) recommended maintaining the current gas tax structure with an additional increase of 25 to 40 cents per gallon and limiting the maximum share of federal match to 40%; this recommendation effectively raises sufficient revenue to meet projected outlay at a 40% federal match, significantly less than the current 80% federal match.[16] More recently, *The Hill* reported that Rep. Earl Blumenauer (D-OR) was reintroducing legislation that would increase the gas tax by 15 cents over a three-year period.[17] The additional 15 cents would result in a total gas tax of 33.4 cents, which is roughly the amount that the tax would have increased had it been indexed to inflation in 1990s. Transportation for America has endorsed a slightly higher gas tax increase of 17 cents, which would raise an estimated $30 billion. Others have called for taxes as high 60 cents to $1 to account for climate change effects.[18]

To place the various proposals into context, it is worth noting that the current 18.4 cents tax raises approximately $35 billion for the HTF. As noted earlier, spending outlay is closer to $54 billion. In addition, the Highway Account is required to maintain a cash balance of at least $4 billion and the Transit Account must maintain a balance of at least $1 billion. Thus, the minimum amount needed to support current outlay and projected estimates is approximately $60 billion, roughly equivalent to about 34.4 cents per gallon (or an increase of approximately 16 cents).

One of the primary limitations of the gas tax is that the user indirectly pays it. Oil companies typically pay a per gallon tax at the point of fuel distribution; the tax is then absorbed into the gas purchase price paid by roadway users. By itself, the gas tax provides little incentive for drivers to forego a trip, even when it costs more, relative to the benefits the trip produces.[19]

Strategies to Replace and/or Augment the Gas Tax

Although a range of different strategies has been suggested to either replace or augment the current gas tax, by far the most popularly suggested mechanism for raising additional revenue

is a vehicle miles traveled (VMT) fee. The VMT tax is a direct usage fee that can be structured as a flat or variable per-mile charge. The variable charge can be based on the time of the actual use, or the fee can be reflective, among others, of the level of congestion or type of facility. The National Surface Transportation Infrastructure Financing Commission (NSTIFC)[20] estimated that with a 1 -cent VMT fee on all roads, all vehicles would raise approximately $30 billion.[21] This is significantly less than the approximately 12 cents per mile related costs ($, 2009) from urban passenger vehicles that was estimated by the CBO. The current gas tax rates equate to approximately 2 cents per mile for passenger vehicles and about 10 cents per mile for trucks.[22]

Although concerns about technical feasibility and user acceptance have been raised, there is strong evidence that both can be addressed. In a national study of a mileage-based road user charge in which a GPS unit was used to assign the taxing jurisdiction, more than 70% of the 2,650 users had a positive to highly positive view of the funding mechanism. Moreover, less than 1% of the total miles driven could not be reliably assigned to the relevant jurisdiction.[23] The efficacy of the VMT tax appears to be quite good with both total VMT and average marginal costs of road congestion reduced with a reasonably modest fee.[24,25]

Other options that have been identified as strong potential replacements or augmentations to the current gas tax include a vehicle registration tax and, at the state level, tolling and pricing.[26] An advantage to the vehicle registration fee is that an administrative system is already in place in every state; adding a national fee of $2.75 per auto and $5.50 per truck would raise $1 billion. Similarly, targeted tolling already exists throughout the nation. Most of these options, but particularly tolling on interstates, have usually been discussed in the context of granting states greater authority for implementation.

The NSTIFC also considered a number of tax strategies, tariffs, and duty taxes that have rarely been mentioned elsewhere.[27] Six taxes were considered feasible: an auto tire tax; a motor fuel tax; a carbon tax; a truck/trailer sales tax; a heavy vehicle use duty tax; and a motor sales tax. All of these were considered potentially strong options because of the advantages offered by existing administrative structures, the ability to raise fairly large funds quickly, and the close adherence to a user-pays principle.[28] Tariffs on imported oil were also considered a plausible option, and could be charged either as a per-barrel tax or as a percentage of the value of the imported oil. While a tariff could raise significant revenues, it would not strongly adhere to the user-pays principle.

Alternatively, a national container fee or transportation surcharge fee could be assessed on imports moving through port facilities. Despite moderate implementation hurdles, this option presents potential constitutional and international trade law conflicts. The advantages of this alternative are limited new administrative costs that would be involved with instituting the fee; U.S. Customs duties already exist on most goods; and duty receipts are anticipated to grow by approximately 7% by 2025. However, as the NSTIFC notes, an increase in U.S. Customs duties will not promote efficient investment, and the fees are only weakly connected to the user-pays principle.

Strategic Reforms

Proposals for strategic reform have included a wide range of ideas, some of which do not touch on the level of the current funding but rather the overall structure of how revenue from taxes should be spent. For example, the Heritage Foundation has argued that all funds should flow directly to the states and decisions about what infrastructure should be funded should be made directly by the states. Heritage makes no distinction as to whether local roads should be managed differently than the Interstate highway system, and asserts that the HTF was meant to be a temporary fund designed for the purpose of paying only for the Interstate system.[29] Others also have identified the need for states to be able to raise funds for highway maintenance and operations. The NSTIFC recommended that tolling and pricing be delegated to the states. The Energy Collective recommended shifting maintenance responsibilities to the states, accompanied by a carbon tax, and encouraging more private ownership of major highways.[30]

As noted earlier, long-term funding sustainability at either the state or federal level depends on the availability of a fee or taxing mechanism that can provide relatively stable funding, promotes efficient use of funds, and is fair.[31] If the federal government doesn't provide sufficient funding, states will have to make up an increasingly large deficit through state financing tools. An argument could be made that states have allowed their transportation systems to expand beyond their current capacity to maintain them, and that any additional funding *should* come from the states. This argument has some validity given the numbers of projects that have been identified as lacking social benefits that exceed the social costs.[32] Nonetheless, some federal funding is likely to be necessary to ensure that national assets are maintained or expanded to support economic activity.

The VMT fee is a direct user fee and thus promotes both efficiency and fairness.[33] The gas tax is considered an indirect user tax; that is, it is less directly linked to how often a user travels on a public road. The VMT fee and the gas tax are often discussed as two separate mechanisms, one to the exclusion of the other. In fact, both may be necessary.

Entanglements

A number of issues are entangled in the various perspectives on structure of transportation funding. First, there is the issue of for what is funding actually needed? Without knowing the answer to this question, it is difficult to know the appropriate levels of tax to set. But entangled with this question is who should be responsible for paying? Second, there has been virtually no discussion of how transportation funding policy might be used to address transportation's contribution to both climate change and reduced ambient air quality. Finally, the issue of social equity, which extends beyond that of fairness[34] associated with the user-pays principle, is rarely elaborated upon in current policy discussions.

What is the funding needed for?

President Dwight D. Eisenhower envisioned funding the Interstate Highway System through a cooperative alliance with a financing method that would eventually earn back the original

investment, possibly with a profit, and avoid long-term debt.[35] There is little doubt that Eisenhower's funding intentions were specifically aimed at infrastructure in the national interests. Over time, the HTF has both incurred significant overruns (short-term debt) and migrated from the concept of funding infrastructure of national importance.

The question of what needs to be funded has not been fully articulated. There are two aspects of "need" that should be considered. First, there is the question of capital expenditures versus maintenance and operational expenditures. States and regions have continued to build significant new roadway capacity over the past decade, upwards of 32,000 miles annually.[36] Some of the new capacity has been funded through state or regional tax mechanisms, but a significant amount relies on federal funding. In 2008, Transportation for America estimated that upwards of 30% of federal funds received was spent on new roadway capacity.[37] While states have been adding capacity, others have been quick to note that delayed maintenance and repair needs have accumulated rapidly.

The American Society of Civil Engineers (ASCE 2013) notes that one in nine bridges are structurally deficient, and while conditions are improving, an investment of more than $20 billion annually is required to eliminate the backlog.[38] It is more complicated to unravel the amount of structurally deficient roadway because estimates of poor roadway miles frequently include costs associated with congestion. Nonetheless, it is extremely unusual for proponents of a tax increase to specifically address paying for maintenance and rehabilitation. Both the Transportation Equity Act for the 21st Century (TEA-21) and Moving Ahead for Progress in the 21st Century Act (MAP-21) have contributed to the confusion of who pays for maintenance and rehabilitation by making the lines of responsibility more opaque.

Prior to MAP-21, the National Highway System (NHS) included the Interstate system plus a few roadways that facilitated travel across a state or across a region. Under MAP-21, the NHS was expanded to include travel *within* a region. This resulted in the addition of around 60,000 new lane miles. MAP-21 also continued a funding program that TEA-21 had established. TEA-21 opened the door to states paying for maintenance and rehabilitation with its authorization under Section 1216(b), which set up a pilot program permitting up to three states to assess tolls on existing Interstate facilities as a way of funding needed reconstruction or rehabilitation on Interstate corridors that could not be adequately maintained without the toll collection. MAP-21 made no changes to the program and as of January 2014, North Carolina (I-95), Virginia (I-95) and Missouri (I-70) had been slotted for this effort.

Taken together, the TEA-21 legislation signaled that states should begin to assume control of Interstate maintenance and the MAP-21 legislation signaled that travel *within* a region was of national significance. These are to some degree conflicting signals, unless the actual intent is to continue federal contributions and standards for all of these roads—in which case, long-term funding will need to be substantially more than any of the proposals currently on the table. For example, the NSTPRSC recommended an increase of 25 cents to 40 cents per gallon in federal fuel taxes. The tax increase would be implemented gradually over a period of five years at which time it would be indexed to inflation. However, this tax projection was based on *only*

capital costs for future transportation—that is, maintenance and operations were not considered.

There are two important dimensions to the funding issue that are rarely disentangled in proposals: 1) what is actually being paid for (capital versus maintenance and rehabilitation) and 2) who should be paying for it (state versus federal). Also embedded in the latter dimension is where taxes are collected and who (federal or state) distributes them. Regardless, it is problematic that we have an infrastructure system in which the combined state-plus-federal funding is insufficient for most states to maintain their transportation system. Against this backdrop, many point to the indirect nature of the gas tax as a user fee.[39]

Nearly everyone participating in the debate on transportation funding *theoretically* recognizes and endorses the user-pays principle. Yet, there is both little political appetite for increasing taxes sufficient to pay for what states claim they need and little progress being made toward any other more direct pricing mechanism. This is probably best exemplified by juxtaposing the perspectives held by the majority and minority reports emerging from the NSTPRSC's work in 2005.[40]

In response to the NSTPRSC majority's recommendation of a federal gas tax increase, the NSTPRSC minority argued that "Continued dependence on fuel taxes… fails to align supply and demand properly,"[41] pointing out that the federal gas tax as a pricing mechanism has little to no relationship to the systems costs, a point that has also made by a number of scholars.[42] In fact, the NSTPRSC minority report was clear that the commission was unable to develop consensus because there was fundamental disagreement about the "underlying nature of the problem facing our transportation system today…"[43]

At appropriate prices, the user-pays concept is important because it helps to align supply and demand. The difficulty is that the gas tax as it is currently structured is neither correctly priced nor connected tightly enough to the user experience to do much more than lend justification to an increasingly inefficient system.

Environmental Considerations

The inability of the gas tax to appropriately reflect environmental externalities is well established. In the ensuing discussion, the focus will be on GHG and ambient air quality. For example, there is evidence that high fuel taxes (on the order of $2, 2007$) can produce significant benefits: driving is reduced quickly, and when combined with increasing new vehicle fuel efficiency, a high cost effectiveness is achieved.[44] While these funding mechanisms seem to have high potential for addressing fleet turnover, they have not to date been designed to provide sustainable, long-term funding. One of the few proposals that directly links transportation funding and climate change calls for reducing GHG by assessing a user fee based on an indexed energy tax.[45]

In principle, the concept of an indexed energy tax has a number of merits. It sends a market signal that encourages consumers to continue to purchase more fuel-efficient vehicles, and it

can be accomplished at potentially significantly lower implementation costs. Such a tax has an automatic—albeit very slow—indexing function using vehicle fleet fuel efficiency. But this particular indexing function is also a key limitation, because, as fleet fuel efficiencies improve, the user energy tax will have go up to maintain current revenues, sending a potentially very confusing and counterproductive market signal: as fuel efficiencies improve, taxes go up. However, because of the relatively slow changeover exhibited by vehicle fleets, consumers might not notice that energy taxes were going up as fleet fuel efficiency improved, especially since some evidence suggests that higher efficiency standards encourage driving.[46] The slow turnover of fleets, however, means that GHG emissions remain critically high for a longer period of time.

The need to reduce GHG emissions from the transportation sector transcends regions and states and is a national problem. An additional carbon tax is one option, and a separate carbon tax could be linked to gas tax increases and itself indexed to carbon emissions. However, at the level of tax required to significantly reduce GHG emissions, available revenue would also likely precipitously drop. Thus, this tax mechanism works best in association with other revenue generators.

Finally, it is worth noting that proposals which suggest delegating all funding to the states and removing federal administration neglect to deal with requirements under the 1990 Clean Air Act Amendments. Given that transportation funding is tied to meeting the National Ambient Air Quality Standards (NAAQS) and that nearly every state in the country has regions that are still not in attainment, additional consideration would have to be given as to how to maintain progress toward clean air.

Social Equity

Fuel taxes indirectly satisfy the user pays principle but can also impose a proportionally larger tax burden on low-income households. This is true even for households that do not own a vehicle since taxes raise transportation costs, which can be reflected in the cost of purchased goods.[47] VMT taxes also impose a tax burden on low-income households but are considered less regressive than fuel taxes.[48] The transition from a high-carbon transportation system to a low-carbon transportation system will undoubtedly be hardest for those least able to afford it. Fuel taxes result in low- and middle-income families spending more of their household income paying the tax than do wealthy families. The Institute on Taxation and Economic Policy has suggested that one way to ensure that everyone pays their fair share is to offer an earned income tax credit that will offset the tax. Five states currently offer low-income tax credits for consumption related taxes.[49]

Recommendations for Sustainability

The purpose of this white paper is to highlight how various proposals will intersect the key dimensions of sustainability. None of the proposals discussed independently forms a coherent transportation policy. The full cost of transportation is not addressed, indexing over time is rarely discussed, and the national goals that are articulated are narrowly defined, largely in

terms of maintaining economic interests. However, if bundled, individual elements of many of the proposals that have been floated could serve to create a more coherent, sustainable transportation funding strategy.

This final section presents a federal transportation plan that includes funding mechanisms that, as a complete set, are linked to achieving transportation sustainability. Taken together, the four major funding mechanisms include:

- One-time use of taxes on corporate earnings overseas to provide a transition;
- Fuel taxes indexed to inflation, and states allowed to 'buy down' their gas tax as they reduce their GHG emissions;
- States given pricing and tolling authority and encouraged to implement a VMT tax; and finally
- An earned income tax credit to offset transportation expenses for low-income households.

As will be seen in the descriptions below, collectively these strategies protect infrastructure of national interest, bring down the current maintenance backlog, and set transportation on the path toward reducing GHGs. States also assume greater responsibility for funding transportation through pricing authority. In short, national economic vitality is preserved while also moving us toward a low-carbon transportation system.

Corporate Taxes

President Obama has proposed a 14% tax on overseas earnings as a means of boosting infrastructure spending. This is a sound strategy, but is likely to be part of a longer term negotiation. Here, it is instead proposed that a one-time use of these funds should be part of a transition strategy that would move transportation to the states. The funds derived from a one-time use of corporate taxes should be designated *solely* for the purposes of addressing maintenance backlogs on federal highways and bridges and regional transit programs, with improving passenger rail as a key focus. States should receive funding based on cost-benefit analyses that prioritize poor infrastructure needs. The use of these funds would also allow states to address deferred maintenance, drawing down the backlog as funding transitions from federal to state.

Fuel and VMT Taxes

As the CBO notes, fuel consumption depends on both VMT and fuel efficiency. At current rates, charging roadway users proportional to the full costs of their use requires both a gas tax and a VMT tax.[50] Moreover, because neither fuel taxes nor VMT fees in general reflect the costs of congestion, other pricing mechanisms that encourage efficient investment are also required. These recommendations are reviewed below.

Gas Tax Reform. Similar to the administration's proposal, the gas tax should remain at its current level. The political environment is such that a sufficiently large gas tax would be very difficult to pass,[51] and a smaller increase is unlikely to make much difference. The

current fuel taxes generate approximately $35 billion annually. These funds should be directed toward two purposes.

First, one-third of the current revenues should be directed toward the maintenance of nationally strategic transportation infrastructure resources, such as ports. Projects submitted as part of this program should be prioritized on the basis of an economic analysis. Second, the remaining approximately $23.5 billion should be allocated to the states for the purpose of reducing transportation GHG emissions. Climate change is a national issue. States should be allowed to determine how to best accomplish this, and as GHG emissions decline over time, states should have the ability to opt out of the federal gas tax for this portion as long as GHGs remain low.

Using the gas tax in this manner would allow the states enough time and sufficient funding to develop economies of scale for alternative transportation, pilot new and innovative transportation services, and begin the transition to a low- to zero-carbon transportation network. The continuation of the current fuel tax also is also advantageous in terms of the availability of an existing administrative structure. This alternative would require that transportation GHG targets be set for each state.

VMT Fee. States should be required to introduce VMT fees, which are best implemented, collected, and distributed within the current state-level administrative frameworks. These funds should be made directly available to states to use as needed for transportation without federal intervention. The implementation of a new VMT fee at the state level provides greater incentive for states to be more efficient in identifying and funding current and future transportation projects. All maintenance and modernization should be assumed by the states for all roads. Other advantages to implementing VMT fees at the state level are that states are much more able to gauge the appropriate level of VMT tax and more knowledgeable about the ways in which a VMT fee can be implemented than Congress or the federal government.

Pricing. The states should be allowed to set pricing mechanisms for federal highways. This includes tolls, fees, and other mechanisms that allow supply and demand to be more tightly linked.

The concept of delegating to states all roadway pricing and VMT tax responsibilities, and allowing states to opt out of the gas tax as GHG reductions are achieved, is consistent—at least in part—with conservatives' call to lower the gas tax,[52] and with moderates' desires to address the climate change challenge and pay for Interstate maintenance. Funding transit as part of a transportation tax can also be considered a national priority given the need to begin quickly to reduce GHG emissions.

Finally, all taxes currently collected for transportation should be indexed to inflation. For funding to be stable, it must be indexed. Possible indices could include the CPI or the

construction cost index, which as noted earlier, has in recent years increased faster than the CPI.

Earned Income Transportation Tax Credit

Finally, to address issues of equity, states should be required to offer an earned income transportation tax credit for low-income families to offset the regressive nature of fuel and VMT taxes. The tax credit could be paid for by the states using federal funds received for transitioning to a low-carbon transportation system.

Final Remarks

As noted earlier, Eisenhower clearly envisioned building a self-funded highway infrastructure that served the national interest. The system currently funded by the HTF is considerably larger and includes many state highways that, while important to states, do not serve the national interest. Today's funding system necessitates clearer linkage between those improvements funded in the national interest and federal funding. And it is also critical that national goals for transportation include sustainability.

In this white paper, three dimensions of sustainability have been identified and a package of funding policies has been proposed that align with these dimensions. The use of corporate taxes would provide interim funding through the restructuring of national transportation funding policies. A one-time use of corporate taxes would also allow states to reduce the backlog of maintenance needs. Fuel taxes would be indexed to inflation and states would be allowed to 'buy down' their gas tax as they reduce their GHG emissions. States would be given pricing and tolling authority and required to implement a VMT tax. States would also assume responsibility for all roads. Taken together, these strategies would set transportation on the path toward sustainability.

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