

Matrix of Illustrative Surface Transportation Revenue Options

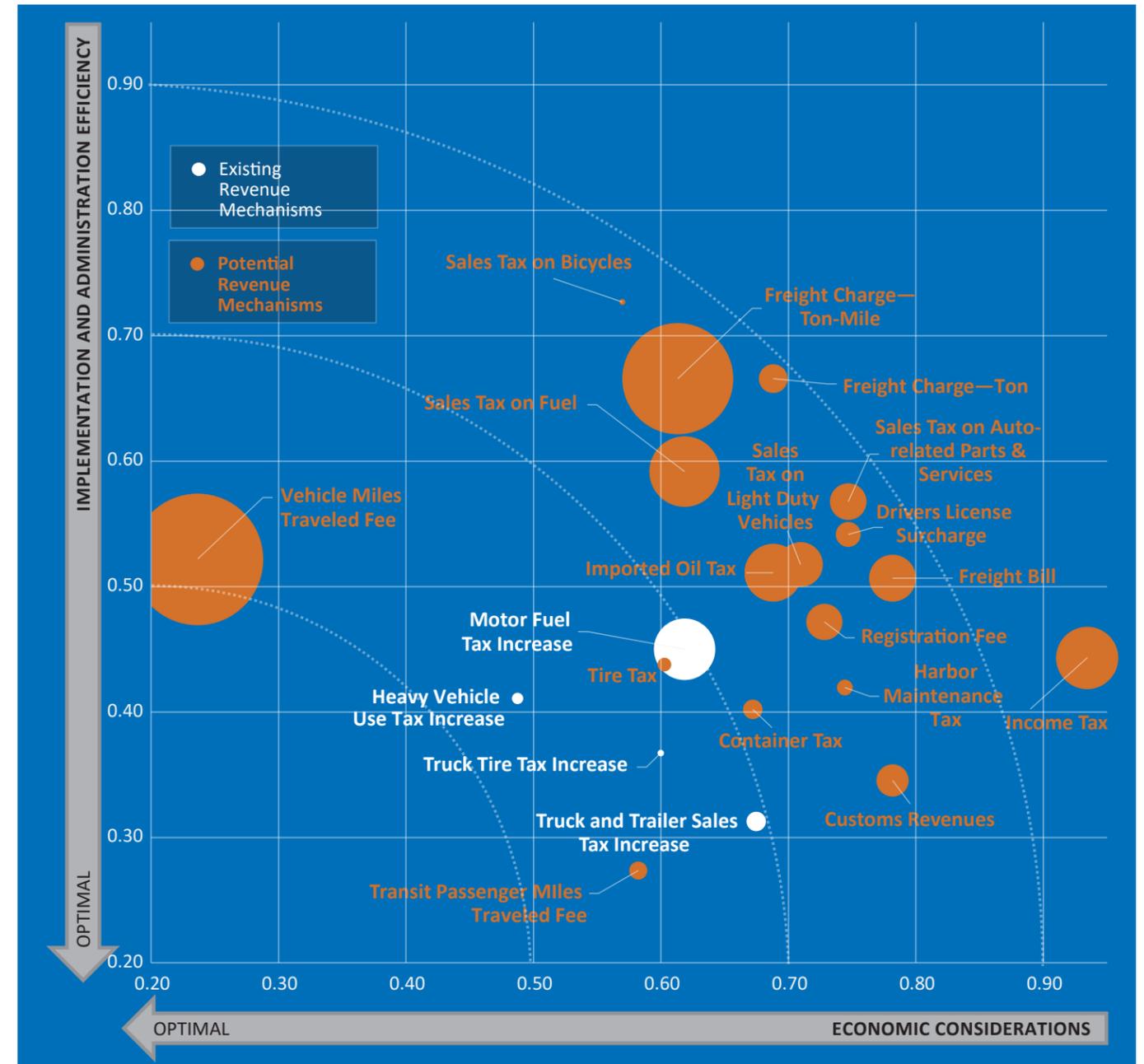
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Existing Highway Trust Fund Funding Mechanisms	Illustrative Rate or Percentage Increase	Definition of Mechanism/Increase	\$ in Billions	
			Assumed 2018 Yield*	Total Forecast Yield 2019–2023
Existing HTF Funding Mechanisms				
Diesel Excise Tax	20.0¢	¢/gal increase in current rate	\$8.8	\$42.2
Gasoline Excise Tax	15.0¢	¢/gal increase in current rate	\$21.8	\$102.1
Motor Fuel Tax Indexing of Current Rate to CPI (Diesel)	--	¢/gal excise tax		\$3.7
Motor Fuel Tax Indexing of Current Rate to CPI (Gas)	--	¢/gal excise tax		\$8.8
Truck and Trailer Sales Tax	20.0%	increase in current revenues, structure not defined	\$0.6	\$4.2
Truck Tire Tax	20.0%	increase in current revenues, structure not defined	\$0.1	\$0.5
Heavy Vehicle Use Tax	20.0%	increase in current revenues, structure not defined	\$0.2	\$1.2
Other Existing Taxes				
Minerals Related Receipts	25.0%	increase in/reallocation of current revenues, structure not defined	\$0.6	\$3.4
Harbor Maintenance Tax	25.0%	increase in/reallocation of current revenues, structure not defined	\$0.4	\$1.9
Customs Revenues	5.0%	increase in/reallocation of current revenues, structure not defined	\$1.9	\$10.3
Income Tax - Personal	0.5%	increase in/reallocation of current revenues, structure not defined	\$5.3	\$28.4
Income Tax - Business	1.0%	increase in/reallocation of current revenues, structure not defined	\$1.7	\$8.9
License and Registration Fees				
Drivers License Surcharge	\$5.00	dollar assessed annually	\$1.1	\$6.1
Registration Fee (Electric Light Duty Vehicles)	\$100.00	dollar assessed annually	\$0.0	\$0.2
Registration Fee (Hybrid Light Duty Vehicles)	\$50.00	dollar assessed annually	\$0.2	\$1.3
Registration Fee (Light Duty Vehicles)	\$5.00	dollar assessed annually	\$1.3	\$6.8
Registration Fee (Trucks)	\$100.00	dollar assessed annually	\$1.2	\$6.3
Registration Fee (All vehicles)	\$5.00	dollar assessed annually	\$1.3	\$7.1
Weight and Distance Based Fees				
Freight Charge—Ton (Truck Only)	10.0¢	¢/ton of domestic shipments	\$1.1	\$5.8
Freight Charge—Ton (All Modes)	10.0¢	¢/ton of domestic shipments	\$1.3	\$7.1
Freight Charge—Ton-Mile (Truck Only)	0.5¢	¢/ton-mile of domestic shipments	\$10.1	\$54.2
Freight Charge - Ton-Mile (All Modes)	0.5¢	¢/ton-mile of domestic shipments	\$21.6	\$115.9
Transit Passenger Miles Traveled Fee	1.0¢	¢/ passenger mile traveled on all transit modes	\$0.6	\$3.2
Vehicle Miles Traveled Fee (Light Duty Vehicles)	1.0¢	¢/LDV vehicle mile traveled on all roads	\$29.1	\$155.7
Vehicle Miles Traveled Fee (Trucks)	1.0¢	¢/truck vehicle mile traveled on all roads	\$2.9	\$15.7
Vehicle Miles Traveled Fee (All Vehicles)	1.0¢	¢/ vehicle mile traveled on all roads	\$32.0	\$171.5
Sales Taxes on Transportation Related Economic Activity				
Freight Bill - Truck Only	0.5%	percent of gross freight revenues (primary shipments only)	\$3.8	\$20.2
Freight Bill - All Modes	0.5%	percent of gross freight revenues (primary shipments only)	\$4.6	\$24.8
Sales Tax on New Light Duty Vehicles	1.0%	percent of sales	\$2.8	\$14.9
Sales Tax on New and Used Light Duty Vehicles	1.0%	percent of sales	\$4.2	\$22.4
Sales Tax on Auto-related Parts & Services	1.0%	percent of sales	\$2.7	\$14.4
Sales Tax on Diesel	2.0%	percent of sales (excluding excise taxes)	\$1.5	\$7.9
Sales Tax on Gas	2.0%	percent of sales (excluding excise taxes)	\$5.2	\$28.0
Tire Tax (Light Duty Vehicles)	1.0%	of sales of LDV tires	\$0.3	\$1.4
Sales Tax on Bicycles	1.0%	percent of sales	\$0.1	\$0.3
Other Excise Taxes				
Container Tax	\$15.00	dollar per TEU	\$0.7	\$4.0
Imported Oil Tax	\$2.50	dollar/ barrel	\$4.5	\$23.9

* Assumed yield in 2018 or the latest year data is available.

Policy Optimality Considerations for Federal Revenue Options (\$ in billions)



This Policy Optimality Considerations bubble chart is based on the evaluation criteria for various Federal surface transportation revenue mechanisms reviewed by the National Surface Transportation Infrastructure Financing Commission. It is split into two components: economic considerations examining equity, efficiency, and impact on the X axis and implementation and administration efficiency on the Y axis. Mechanisms considered by the Commission to be more consistent with potential policy goals are closer to the left on the X axis and bottom on the Y axis.

Existing Federal Highway Trust Fund revenue mechanisms are colored in white and proposed revenue mechanisms are in orange. The size of the marker for each mechanism corresponds to the order of magnitude of the revenue generation potential based on the illustrative rate or percentage increase assumed in the summary matrix.

For additional information including the Commission’s contextual explanation and detailed methodology used in this chart, please refer to Chapter 3 of the final Commission report available at <http://financecommission.dot.gov>.



* Based on the illustrative rate or percentage increase assumed in the summary matrix.

Brief Description of Existing and Potential Revenue Options

Container Tax—A national fee imposed on some or all containers moving through the United States. If the charge is only assessed on imports, it can be expected to raise approximately one-third less revenues. Revenues from such a fee would be strictly dedicated to fund freight investment activities.

- **Pros**—Raises a decent level of funding relative to freight needs; moderate implementation, administration, and compliance costs; strong sustainability
- **Cons**—Does little to promote efficient system use; potential international trade laws conflicts; could have regional equity issues

Customs Revenues: Partial Dedication—Customs duties are imposed at varying rates on various imported goods passing through U.S. international gateways and currently go to the General Fund of the U.S. Treasury. A number of interest groups, as well as the National Surface Transportation Policy and Revenue Study Commission, have suggested that given the role transportation infrastructure plays in facilitating the import of goods, a portion of current customs duties should be allocated to support transportation investment.

- **Pros**—Small percentage of current revenues provides significant revenues; highly sustainable
- **Cons**—Diverts or expands a mechanism that is currently used and viewed as an important U.S. General Fund revenue source

Drivers License Surcharge—States charge a fee for issuing driver’s licenses. In some cases, the fee simply recovers the cost of administering the licensing programs. In many states, however, license fees also are used as a source of funding for transportation or other purposes.

- **Pros**—Significant revenue yield; well-established in each state with minimal additional administrative cost
- **Cons**—Strong public and political opposition; different licensing practices in each state; infringes on states’ reliance on this fee; poor social equity

Freight Bill—A freight waybill tax would serve as a sales tax on the shipping costs for freight. Such a tax could be modeled on the aviation system tax, in which passenger and freight users who rely on the same infrastructure and carriers all contribute to fund the system. The air-freight waybill tax currently provides five percent of contributions to the Federal Airport and Airway Trust Fund.

- **Pros**—Large revenue yield potential; reasonably equitable
- **Cons**—Expensive to administer and enforce; more of an indirect user fee, not as directly related to system use

Freight Charge: Ton or Ton-Mile—Freight-related taxes could be imposed on a pure tonnage or ton-mile basis. A ton-based tax would charge shippers a flat fee for every ton of freight moved. Variations of these taxes have been imposed by a few states in the past, but there has not been an equivalent tax imposed at the Federal level.

- **Pros**—Decent revenue yield potential; justifiable as a transportation user fee; potential positive impact on efficient system use
- **Cons**—Strong trucker/rail opposition; impact of tax heaviest on low-value bulk items; significant implementation, administration, and compliance issues; not a viable short-term option

Harbor Maintenance Tax—This is an existing revenue mechanism, similar to customs duties and fees, that supports the Federal Harbor Maintenance Trust Fund through an ad valorem tax on the value of passenger tickets and declaring commercial cargo loaded onto or unloaded from vessels using federally maintained harbors. The current tax is largely used to pay for harbor dredging and thus primarily benefits deep-draft oceangoing vessels carrying cargo on trans-oceanic routes.

- **Pros**—Largely sustainable; would not require major administrative effort or expansion of legal authority
- **Cons**—Portion levied on imports could increase international trade laws conflicts; tax is not levied on U.S. exporters that use much of the local highway system around ports

Heavy Vehicle Use Tax—An annual fee is currently imposed on all trucks 55,000 pounds Gross Vehicle Weight (GVW) or greater. The tax rate is \$100 plus \$22 for each 1,000 pounds of GVW in excess of 55,000 pounds, up to a maximum annual fee of \$550 (thus, all trucks with GVW greater than 75,000 pounds pay the maximum).

- *Pros*—Strong correlation between tax and user benefit/impact; easy and cost-effective to administer
- *Cons*—Does not raise a lot of revenue

Imported Oil Tax—A tax on imported oil charged as either a fixed amount per barrel of oil or as a percentage on the value of imported oil.

- *Pros*—Small fee could raise significant revenue; can help to promote U.S. energy independence
- *Cons*—Broad nature of tax creates limited user pay/benefit relationship (e.g., home heating oil would be taxed for transportation); raises geographical equity issues; could raise broader free trade issues

Income Tax: Business and/or Personal: Partial Dedication—A national income tax for transportation could be created fairly easily and inexpensively by dedicating a portion of the existing tax or by adding an across-the-board increase to current personal and/or corporate income tax rates.

- *Pros*—Small percentage tax yields significant revenue; strong sustainability; inflation-neutral; easy to administer and enforce; relatively progressive
- *Cons*—Support for dedicating revenues to transportation needed though good transportation aids income growth; strong political opposition; weak link to economic efficiency and equity; negative impacts on the Federal budget

Motor Fuel Tax/ Motor Fuel Tax Indexing—Federal motor fuel tax rates are currently 18.4 cents per gallon for gasoline, gasohol and special fuels (rates on special fuels vary, but average about 18.4 cents), and 24.4 cents per gallon for diesel.

- *Pros*—Large revenue yield with small rate change; a tried-and-true user fee; ease of administration
- *Cons*—Long-term sustainability issues; strong public opposition; somewhat regressive

Mineral-Related Receipts: Oil, Gas, Minerals Lease—Royalty, Rent, Bonus, and Other Income (Partial Dedication)—The Federal government receives various income from the extraction of oil, natural gas, and minerals from Federal lands and offshore mining activities. Aside from a portion designated for the states, the remaining amount of these revenues currently goes to the Federal General Fund which could be redirected for transportation purposes.

- *Pros*—Sustainable; can help to promote U.S. energy independence
- *Cons*—Diverts funds from the General Fund of the Government; link to transportation is not as strong as user fees; revenues could be volatile

Registration Fee—All states impose annual vehicle registration and related fees, and at least half the states raise more than a quarter of their dedicated transportation revenues through this mechanism. The structure of registration fees varies widely, from a flat per vehicle fee to a schedule of rates based on factors such as vehicle type, weight, age, horsepower, and value.

- *Pros*—Small Federal fee; sustainable; well-established; little additional administrative cost; could charge for indirect impacts such as carbon emissions
- *Cons*—No relation to system use; could be viewed as double taxation at the Federal level due to the existing heavy vehicle use tax; infringes on states' reliance on this fee

Sales Tax: Auto-related Parts & Services—Similar to the vehicle sales tax, a national sales tax could be established on all products and services related to vehicle use, including part and accessories, lubricants, and repairs.

- *Pros*—Small tax rate could yield relatively large revenues; strong sustainability; justifiable as a flexible, dedicated source for transportation
- *Cons*—Significant administrative and compliance issues; social equity issues; little relationship with system use; limited public acceptance; potential to disincentive repairs and create safety issues

Sales Tax: Bicycles—A national sales tax on bicycles.

- *Pros*—Could provide direct user funding for bike-related infrastructure
- *Cons*—Does not raise significant revenues; potentially significant administrative and compliance issues; social equity issues

Sales Tax: Diesel and/or Gas—A national sales tax on motor fuels could be imposed as a percentage of motor fuel costs. A handful of states currently impose a motor fuels sales tax, most in the four to six percent range, as a supplement to a traditional cent per gallon tax (note: not all states that impose a motor fuels sales tax dedicate all of the resulting revenues to transportation). The revenue generation capabilities of a national motor fuels sales tax would be driven by several variables, including the price of fuel, the tax collection point (e.g., at the pump vs. points along the distribution network), the basis for the tax (e.g., inclusion vs. exclusion of state and local taxes), and the imposition of tax ceilings or floors.

- *Pros*—Small percentage tax raises significant revenues; sustainable in the short term; provides flexible, dedicated transportation funding
- *Cons*—Fuel price volatility could lead to unpredictable revenue levels; unsustainable in the long-term; political/public resistance can build during price spikes

Sales Tax: New and/or Used Light Duty Vehicles—Most likely levied as a percentage of the total sales price for either all new or new/used vehicle purchases (similar to the existing sales tax on trucks and trailers).

- *Pros*—Small fee could raise significant revenue; highly sustainable, captures revenues from alternative fuel vehicle users; could likely be implemented through either existing state tax mechanisms or imposed through vehicle manufacturers
- *Cons*—Could cannibalize a traditionally important state/local transportation and general fund revenue source; limited user-benefit correlation

Sales Tax: Trucks and Trailers—A Federal sales tax of 12 percent is imposed on the retail sales price for the first sale of all tractors and trucks over 33,000 pounds in gross vehicle weight (GVW) and trailers over 26,000 pounds in GVW, including parts and accessories associated with the sale.

- *Pros*—Strong sustainability that tracks with inflation; strong history that is easy to administer; reasonably acceptable from a public/political perspective; tax at national level creates even playing field; recover heavy vehicles' cost to the system
- *Cons*—Revenue potential is limited; unstable and highly cyclical; no relationship with system use; disincentive to purchase newer vehicles

Tire Tax: Light Duty Vehicles—A national tax on light-duty vehicle tires for both tires on new vehicles and replacement tires. Would likely be implemented in conjunction with the current Federal truck tire tax.

- *Pros*—Provides a counter light-duty vehicle balance to the current truck tire tax; highly sustainable; strong user-benefit correlation
- *Cons*—Does not raise significant revenues; may discourage timely replacement of worn tires

Tire Tax: Trucks—A Federal tax is imposed on the purchase of all tires with a maximum rated load over 3,500 pounds. The tax is justified in part because it helps to recover some of the additional system damage costs caused by heavier vehicles. The current tax rate is 9.45¢ for every 10 pounds of maximum capacity that exceeds 3,500 pounds.

- *Pros*—Strong correlation between tax and user benefit/impact; easy and cost-effective to administer
- *Cons*—Does not raise a lot of revenue

Transit Passenger Miles Traveled Fee—Distance-based fee on transit passenger trips.

- *Pros*—Could provide direct user funding for transit infrastructure
- *Cons*—Does not raise significant revenues; potentially significant administrative and compliance issues; social equity issues

Vehicle Miles Traveled Fee—Drivers can be charged for the total number of vehicle miles traveled (VMT), regardless of the road used or the time of day. The fee can be charged in a number of ways. Oregon launched its OReGO Program in 2015, which is the nation's first operable road usage charge (RUC) system. Under this system, over 1,300 vehicles pay a per mile fee in lieu of the state gas tax, with either a global positioning system (GPS) enabled mileage reporting device (MRD), or an MRD without GPS. Several other states have launched RUC pilots.

- *Pros*—Large revenue yield potential; highly sustainable; appropriate user fee; leads to more efficient use of system
- *Cons*—Public and political opposition is high, especially on privacy grounds; considerable costs and challenges (institutional, administrative, and cultural); not enough real-world experience with implementation; not a viable short-term option

