

GAO

Testimony

Before the Committee on Finance  
U.S. Senate

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For Release on Delivery  
Expected at 9:30 a.m. DST  
Thursday, May 9, 2002

HIGHWAY FINANCING

Factors Affecting Highway  
Trust Fund Revenues

Statement of JayEtta Z. Hecker  
Director, Physical Infrastructure Issues



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Mr. Chairman and Members of the Committee:

We appreciate the opportunity to provide testimony on important Highway Trust Fund issues as the Congress begins to consider the reauthorization of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21). Our statement today is based on our recent reports and testimonies on the Highway Trust Fund and related issues.<sup>1</sup> As you know, the Highway Trust Fund is the principal mechanism for funding federal highway programs authorized by TEA-21. TEA-21 “guaranteed” specific annual funding levels for most highway programs on the basis of projected receipts to the Highway Trust Fund and provided for annual adjustments—referred to as Revenue Aligned Budget Authority (RABA)—to these funding levels on the basis of actual receipts and revised projections of trust fund revenue. This helps to ensure that Highway Trust Fund receipts are linked to federal highway program expenditures. In fiscal year 2003, for the first time, the RABA adjustment is negative—decreasing the guaranteed level of highway funding by \$4.369 billion. While there is general support for continuing to link receipts to highway expenditures in the next reauthorization legislation, there are concerns as to whether future Highway Trust Fund receipts will be able to meet growing transportation needs.

Consequently, you asked us to discuss (1) how tax revenues are distributed into the Highway Trust Fund, (2) our review of the fiscal year 2003 RABA calculation and ways to reduce fluctuations in the RABA

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<sup>1</sup>U.S. General Accounting Office, *Highway Funding: Problems with Highway Trust Fund Information Can Affect State Highway Funds*, GAO/RCED/AIMD-00-148 (Washington, D.C.: June 2000); *Applying Agreed-Upon Procedures: Highway Trust Fund Excise Taxes*, GAO-02-379R (Washington, D.C.: Feb. 2002); *Highway Financing: Factors Affecting Highway Funding Fluctuations and Revenue Trends*, GAO-02-527T (Washington, D.C.: Mar. 2002); and *Highway Trust Fund: Overview of Highway Trust Fund Financing*, GAO-02-435T (Washington, D.C.: Feb. 2002). Our work was carried out in accordance with generally accepted government auditing standards.

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adjustment, (3) the impact of gasohol use on the Highway Trust Fund, and (4) industry proposals of ways to increase revenues into the trust fund.

In summary:

- The Department of the Treasury uses a complex process involving four organizations within the department to estimate highway user tax receipts, credit the estimated amounts to the Highway Trust Fund, and subsequently certify and adjust the amounts credited to the fund by analyzing actual payment and tax return data. This process is used because Treasury does not obtain data on the specific excise taxes being paid at the time these deposits are made. Our past reports have identified errors and problems with Treasury's excise tax distribution process. However, Treasury has made and continues to make improvements to this process. For example, Treasury recently adopted a new technique for estimating initial distributions to the trust fund to more closely links projections to actual receipts collected. This may have contributed to the adjustment for the fourth quarter of fiscal year 2001 (less than \$100 million) being significantly less than the adjustment for the fourth quarter of the prior fiscal year (\$1.2 billion).<sup>2</sup>
- We believe the fiscal year 2003 RABA calculation appears reasonable. Although the fiscal year 2003 RABA adjustment of a negative \$4.369 billion is severe, it is largely a reflection of the multiple ways a downturn in the economy affects the calculation. For example, about 80 percent of the fiscal year 2003 RABA adjustment is attributable to the "look back" portion of the RABA calculation, which is made up of two elements. The first

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<sup>2</sup>We have not reviewed IRS's certification of the receipts for the fourth quarter of fiscal year 2001 to determine if they were reasonable and adequately supported.

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element of the look back is the comparison of the actual Highway Account receipts for fiscal year 2001 with the projections of receipts for fiscal year 2001 included in TEA-21. The second element is an adjustment for a portion of the RABA amount provided in fiscal year 2001, which had resulted in states' receiving an "advance" of funds due to optimistic revenue projections for fiscal year 2001. According to Treasury, actual fiscal year 2001 receipts were lower than expected due to the slowdown in the economy, which especially affected heavy truck sales, and increased gasohol use. Our review shows that the amounts distributed to the Highway Trust Fund for the first 9 months of fiscal year 2001 were reasonable and adequately supported. The remaining 20 percent of the fiscal year 2003 RABA adjustment is due to the "look ahead" portion of the calculation, which compares Treasury's current projections of Highway Account receipts for fiscal year 2003 with the projection of receipts for that year contained in TEA-21. Although we did not independently evaluate the methodology and the economic models Treasury used to develop its revenue projections, our review of a qualitative description of the process, key inputs, and changes to the models plus a comparison of Treasury's projections to those of the Congressional Budget Office (CBO) gave us no reason to question the resulting projections. There are several ways that the RABA adjustment could be changed to help reduce fluctuations in highway funding. For example, the RABA adjustment could be distributed over 2 years.

- The use of ethanol-blended fuel (gasohol) instead of gasoline reduces Highway Trust Fund revenue because gasohol is partially exempt from the standard excise tax on gasoline (18.4 cents), and 2.5 cents of the tax received on each gallon of gasohol sold is transferred to the General

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Fund.<sup>3</sup> Gasohol was the only Highway Account receipt source to grow from fiscal year 2000 to fiscal year 2001—increasing about 17.5 percent. Because of gasohol’s tax provisions, however, increases in gasohol use and corresponding reductions in gasoline use decrease Highway Account receipts. We estimate that the Highway Account did not receive about \$6.01 billion (in constant 2001 dollars) from fiscal years 1998 through 2001 due to gasohol’s partial tax exemption and General Fund transfer. Further, gasohol use is projected to increase; thus, the impact of these tax provisions could grow as well. Using Treasury’s projections of gasohol tax receipts, which are based on current law, we estimate that the Highway Account will forgo an additional \$13.72 billion (in constant 2001 dollars) due to the partial tax exemption from fiscal years 2002 through 2012 and \$6.92 billion from fiscal years 2002 to 2012 due to the General Fund transfer (in constant 2001 dollars).<sup>4</sup> According to Department of Agriculture (USDA) and ethanol industry officials, the partial tax exemption for gasohol helps to create a demand for ethanol and make gasohol prices competitive with gasoline prices.

- Industry groups have proposed a number of ways to increase Highway Trust Fund revenues in order to address future transportation needs. In 2000, the Department of Transportation (DOT) estimated that an average annual investment of \$56.6 billion would be needed over the next 20 years

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<sup>3</sup>For the purposes of this testimony, we use the term gasohol to refer to all types of ethanol-blended fuels. Although biomass methanol fuels are also eligible for partial tax exemptions, Treasury does not separately track the small amounts associated with them.

<sup>4</sup>The General Fund transfer expires at the end of fiscal year 2005. To reflect the expiration, Treasury reduces the total federal excise tax on gasohol blends by 2.5 cents starting in fiscal year 2006. Under Treasury’s approach, the Highway Account is neither benefited nor harmed by the expiration. For the purposes of this testimony, we estimated the impact of the 2.5 cent General Fund transfer assuming the transfer continued through fiscal year 2012.

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just to maintain the physical conditions of existing highways and bridges. Additionally, DOT estimated that an average annual investment of \$10.8 billion would be needed over the next 20 years to maintain the nation's transit systems. These projections coupled with certain trends, such as increased gasohol use and increased fuel efficiency, have contributed to concerns about the long-term ability of the Highway Trust Fund to meet federal funding of transportation needs. To help ensure adequate funding is available for these needs, industry groups have proposed that the trust fund be paid interest on its balance. Prior to TEA-21, the Highway Trust Fund earned interest on its balance, which was paid by the General Fund. If the Highway Trust Fund had continued to earn interest on its balance, Treasury estimates that the fund would have earned about \$4 billion from September 1999 through February 2002. Other proposals are aimed at altering the current user tax structure to increase Highway Trust Fund revenue. For example, the taxes levied on heavy trucks could be increased—which would reflect the findings of Federal Highway Administration studies that show the highway user taxes for heavy trucks do not correspond to the damage they cause to the nation's highways. We have not evaluated the public policy implications of this or other proposals to increase trust fund revenues. Ultimately, the Congress and the administration must assess the long-term sustainability of the trust fund and weigh the advantages and disadvantages of these and other ways to increase revenues.

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## Background

The Highway Revenue Act of 1956 established the Highway Trust Fund as an accounting mechanism to help finance federal highway programs. According to DOT, the Highway Trust Fund was created as a user-supported fund—that is, the revenues of the Highway Trust Fund were intended for financing highways, with the taxes dedicated to the fund paid

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by the users of highways. This principle is still in effect, but the tax structure has changed since 1956. In 1983, the Highway Trust Fund was divided into two accounts: a Highway Account and a Mass Transit Account. Receipts to the Highway Account are used to fund highway programs, through which billions of dollars are distributed to the states annually for the construction and repair of highways and related activities.

Financing for the Highway Trust Fund is derived from a variety of federal highway user taxes, including excise taxes on motor fuels (gasoline, gasohol, diesel, and special fuels) and tires; sales of new trucks and trailers; and the use of heavy vehicles. (See fig. 1.) As table 1 shows, the excise tax rates and distribution of the tax revenues vary. The different tax rates reflect federal policy decisions. For example, in the 1970s and 1980s, the federal government adopted numerous policies to encourage the use of alternatives to imported fossil fuels and to help support farm incomes. Among these policies were tax incentives that targeted the use of alcohol fuels derived from biomass materials, such as ethanol.<sup>5</sup> Ethanol-blended fuels (gasohol) are partially exempt from the standard excise tax on gasoline (18.4 cents). The proportion of ethanol contained in each gallon of fuel determines the size of the partial exemption. The most common ethanol blend contains 90 percent gasoline and 10 percent ethanol and is currently taxed at 13.1 cents per gallon—an exemption of 5.3 cents.<sup>6</sup> The federal government also uses the distribution of excise tax receipts to different accounts to achieve policy goals. For example, a small

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<sup>5</sup>Biomass-derived alcohol fuels are chemical compounds made from nonfossil material of biological origin and constitute a renewable energy source.

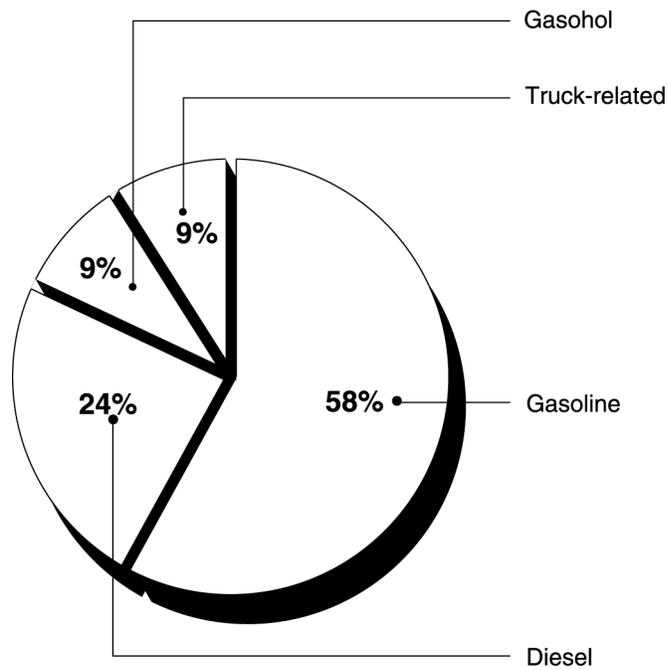
<sup>6</sup>Ethanol-blended fuels containing 7.7 percent ethanol and 5.7 percent ethanol qualify for a 4.058 cents and 2.978 cents per gallon exemption, respectively. TEA-21 extended the exemption for gasohol fuels through fiscal year 2007 and provided for a phased-in reduction in the exemption for gasohol.

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part of the excise tax on most motor fuels is distributed to the Leaking Underground Storage Tank Trust Fund to clean up contamination caused by underground storage tanks. Additionally, 2.5 cents of the tax received on each gallon of gasohol is transferred to the General Fund, rather than the Highway Trust Fund, for deficit reduction purposes.

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**Figure 1: Revenue Sources of the Highway Trust Fund, Fiscal Year 2001**



Source: GAO analysis.

**Table 1: Excise Tax Rates and Distributions of Highway User Taxes, as of July 2001**

Cents per gallon

Type of tax	Tax rate	Distribution of tax			
		Highway Trust Fund	Leaking Underground Storage Tank Trust Fund	Highway Account	Transit Account
<b>Motor fuels taxes</b>					
Gasoline	18.40	15.44	2.86	0.10	-
Diesel	24.40	21.44	2.86	0.10	-
<b>Alternative fuels taxes</b>					
Gasohol (10% ethanol)	13.10	7.64	2.86	0.10	2.5
Liquefied petroleum gas	13.60	11.47	2.13	-	-
Liquefied natural gas	11.90	10.04	1.86	-	-
M85 (from natural gas)	9.25	7.72	1.43	0.10	-
Compressed natural gas (cents per thousand cu. ft.)	48.54	38.83	9.70	-	-
<b>Truck-related taxes</b>					
Tires:	0-40 lbs, no tax Over 40 lbs – 70 lbs, 15 cents per pound in excess of 40 Over 70 lbs – 90 lbs, \$4.50 plus 30 cents per pound in excess of 70 Over 90 lbs, \$10.50 plus 50 cents per pound in excess of 90				
Truck and Trailer Sales Tax	12 percent of retailer's sales price for tractors and trucks over 33,000 lbs gross vehicle weight (GVW) and trailers over 26,000 lbs GVW				
Heavy Vehicle Use Tax	Annual tax: Trucks 55,000 lbs and over GVW, \$100 plus \$22 for each 1,000 lbs (or fraction thereof) in excess of 55,000 lbs (maximum tax of \$550)				

Note: Tax rates for gasohol mixtures vary according to the amount of ethanol contained in the mixture.

Source: Federal Highway Administration and Treasury.

TEA-21 continued the use of the Highway Trust Fund as the mechanism for accounting and distributing for federal highway user taxes. TEA-21 also established guaranteed spending levels for certain highway and transit programs. Prior to TEA-21, these programs competed for budgetary resources through the annual appropriations process with other domestic discretionary programs. New budget categories were established for highway and transit spending, effectively establishing a budgetary “firewall” between those programs and other domestic discretionary

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spending programs. Of the \$217.9 billion authorized for surface transportation programs over the 6-year life of TEA-21, about \$198 billion is protected by the budgetary firewall—about \$162 billion for highway programs and \$36 billion for transit programs.

Under TEA-21, the amount of highway program funds distributed to the states is tied to the amount of actual tax receipts credited to the Highway Account of the Highway Trust Fund. TEA-21 guaranteed specific levels of funding for highway programs from fiscal years 1999 through 2003 on the basis of projected receipts of the Highway Account. TEA-21 also provided that beginning in fiscal year 2000, this guaranteed funding level for each fiscal year would be adjusted upward or downward through the RABA calculation as the levels of Highway Account receipts increased or decreased. To determine the RABA adjustment, the Office of Management and Budget (OMB) and the Office of the Secretary in DOT rely on information on Highway Account receipts and revised Highway Account projections supplied by Treasury. Specifically, the Bureau of Public Debt provides the actual Highway Account receipts for the prior fiscal year; the Office of Tax Analysis (OTA) provides a projection of Highway Account receipts for the next fiscal year.

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## Treasury Uses a Complex Process to Credit Funds to the Highway Trust Fund

Treasury uses a complex process involving four organizations within the department to estimate highway user tax receipts, credit the estimated amounts to the Highway Trust Fund, and subsequently certify and adjust the amounts credited to the fund by analyzing actual payment and tax return data. Our past reports have identified errors and problems with

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Treasury's excise tax distribution process.<sup>7</sup> Treasury has made and continues to make improvements to this process.

In most instances, someone other than the highway user initially pays most highway-related excise taxes. For example, oil companies pay a per-gallon tax on motor fuels at the point where it is loaded into tanker trucks or rail cars at a terminal. Also, tire manufacturers pay taxes on truck tires, by weight; and retailers pay taxes on the sales prices of trucks and trailers. Owners of heavy highway vehicles pay a tax annually on the use of these vehicles, making this the only highway tax directly paid by the highway user. Other highway users pay taxes indirectly, since the costs of these taxes become part of the purchase price of the products taxed.

Most payers of highway user excise taxes make semimonthly deposits to cover their estimated excise tax liabilities, generally through Treasury's Electronic Federal Tax Payment System.<sup>8</sup> Businesses that make these deposits do not specify which types of excise taxes they are paying with each semimonthly deposit. However, they are required to report the amounts owed for each specific excise tax on a quarterly tax return due 1 to 2 months after the end of each quarter. When filing the return, the taxpayer is required to make a final payment to make up the difference between the total of semimonthly deposits and the reported total amount owed for the quarter, if the latter amount is greater. Payers of the heavy vehicle use tax generally file returns annually and make payments directly

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<sup>7</sup>See, for example, [GAO/RCED/AIMD-00-148](#).

<sup>8</sup>The Electronic Federal Tax Payment System allows taxpayers to make tax deposits electronically. All business taxpayers that have an annual federal tax liability exceeding \$50,000 are required to use this system for making tax deposits.

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to the Internal Revenue Service (IRS). These payments may be made with the annual returns or through installments.

All excise taxes received are deposited into Treasury's General Fund. Because data are not available to determine the amounts of these receipts that represent highway user taxes, Treasury initially uses estimates of highway user tax receipts prepared by OTA to make initial distributions from the Treasury General Fund to the Highway Trust Fund each month. After this initial distribution, IRS certifies quarterly the amounts collected for highway user taxes that should have been distributed to the fund on the basis of tax returns and payment data. However, IRS does not certify collections for each quarter until about 6 months after the quarter ends. IRS needs this period of time to allow for the submission and processing of returns as well as for recording, reviewing, and analyzing payment and tax return data. Following certification, Treasury adjusts the amount initially distributed to the Highway Trust Fund for that quarter. For example, in March 2001, Treasury made an adjustment to decrease the fiscal year 2001 excise tax revenue distributions to the Highway Trust Fund to correct for actual collections in the fourth quarter of fiscal year 2000. The certified fourth quarter receipts were \$1.2 billion less than the amount initially distributed on the basis of OTA's estimates for that quarter. According to an OTA official, OTA had calculated the original estimated transfer amounts for the quarter using an economic model that assumed a higher rate of economic growth through calendar year 2000 than was actually the case.<sup>9</sup> OTA has since adopted a new estimating technique that more closely links projections to actual receipts collected. This may have contributed to the adjustment for the fourth quarter of

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<sup>9</sup>Prior to December 2000, the distribution process was linked to OTA's receipt estimates for inclusion in the president's budget.

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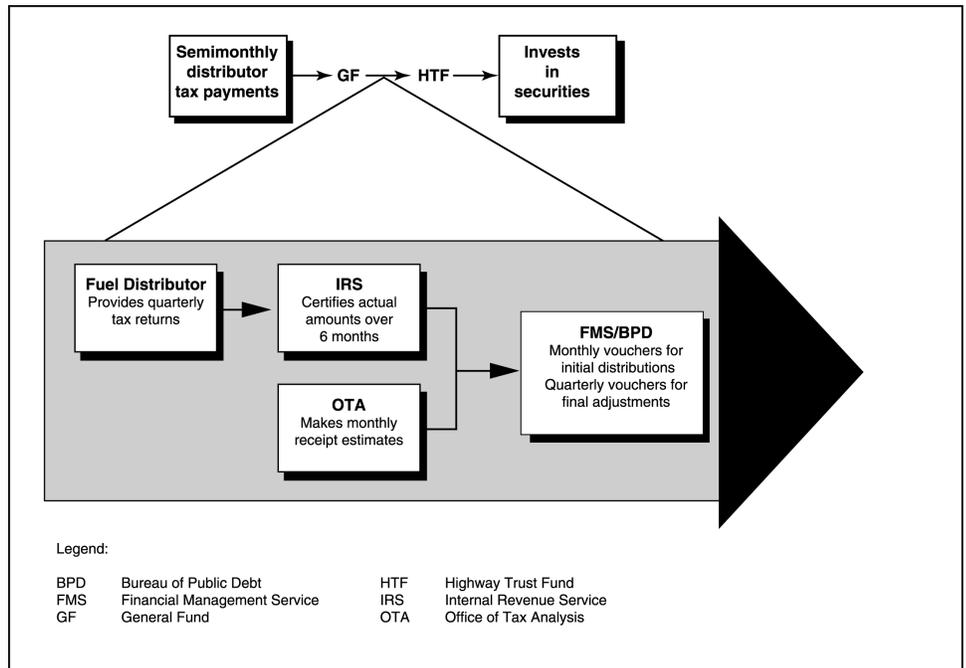
fiscal year 2001 being significantly less than the fourth quarter adjustment of the prior year. In particular, on the basis of IRS certifications, the adjustment for the fourth quarter of fiscal year 2001 will be about \$100 million—that is, the actual receipts collected were about \$100 million more than the amount initially distributed to the trust fund.<sup>10</sup>

Treasury's Financial Management Service and Bureau of Public Debt share responsibility for making the initial distributions to the Highway Trust Fund, on the basis of OTA's estimates, and subsequent adjustments to these amounts, on the basis of IRS's certifications. The Financial Management Service prepares vouchers for these distributions and adjustments. The Bureau of Public Debt, which maintains accounting records for the fund, uses these vouchers to record and process the distributions and adjustments. (See fig. 2 for an illustration of Treasury's process.) Following the close of each fiscal year, the Bureau of Public Debt prepares a report on the amount of tax receipts that were distributed to the fund during that fiscal year. The Department of Transportation and OMB use the Highway Account receipts figures in these reports to determine the amounts of highway program funds to be distributed to the states.

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<sup>10</sup>We have not reviewed IRS's certification to determine if they were reasonable and adequately supported.

**Figure 2: Treasury's Process for Distributing Taxes to the Highway Trust Fund**



Source: GAO analysis.

Although Treasury has made improvements in its distribution process, other improvements could be made, such as requiring the taxpayer—at the time of the deposit—to indicate the specific types of taxes for which deposits are made. Obtaining this information at the time of the deposit would eliminate the need to rely on estimates for the initial distributions to the trust fund. In June 2000, we recommended that Treasury (1) evaluate and decide whether to use incentives as a near-term method for encouraging taxpayers to provide detailed data—at the time of deposit—on specific types of excise taxes for which deposits are made and (2) reexamine taxpayer capabilities to provide these detailed data and decide

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whether to require such data from taxpayers at that time.<sup>11</sup> Treasury has not yet acted on our recommendations.

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## The Calculation of the Fiscal Year 2003 RABA Adjustment Appears Reasonable

On the basis of the information we reviewed, the fiscal year 2003 RABA calculation—a negative \$4.369 billion—appears reasonable. The RABA adjustment for fiscal year 2003 was calculated by (1) comparing the actual Highway Account receipts for fiscal year 2001 with the projections of receipts for fiscal year 2001 included in TEA-21 and an adjustment for the RABA calculation made for that year (the look back portion of the calculation) and (2) comparing current projections of Highway Account receipts for fiscal year 2003 with the projection of these receipts contained in TEA-21 (the look ahead portion of the calculation). The sum of these differences is the RABA adjustment. Table 2 shows the RABA calculations for fiscal years 2000 through 2003. As shown, the RABA adjustments for fiscal years 2000 through 2002 were positive—increasing highway funding levels by a total of over \$9 billion. However, the RABA adjustment for fiscal year 2003 is a negative \$4.369 billion.

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<sup>11</sup>[GAO/RCED/AIMD-00-148](#). We also made several recommendations to the secretary of transportation, which were designed to improve the reliability of the Federal Highway Administration's attribution of highway funds to each state.

**Table 2: RABA Calculation for Fiscal Years 2000 through 2003**

Dollars in millions

Fiscal year	"Look back"		"Look ahead"		RABA
FY 2000	1998 actual Highway Account receipts	\$23,135	2000 estimated Highway Account receipts	\$28,551	\$1,456
	less: 1998 TEA-21 estimated Highway Account receipts	22,164	less: 2000 TEA-21 estimated Highway Account receipts	28,066	
	less: look ahead result for 1998	0			
	Subtotal	971	Subtotal	485	
FY 2001	1999 actual Highway Account receipts	33,815	2001 estimated Highway Account receipts	30,368	3,058
	less: 1999 TEA-21 estimated Highway Account receipts	32,619	less: 2001 TEA-21 estimated Highway Account receipts	28,506	
	less: look ahead result for 1999	0			
	Subtotal	1,196	Subtotal	1,862	
FY 2002	2000 actual Highway Account receipts	30,334	2002 estimated Highway Account receipts	31,732	4,543
	less: 2000 TEA-21 estimated Highway Account receipts	28,066	less: 2002 TEA-21 estimated Highway Account receipts	28,972	
	less: look ahead result for 2000	485			
	Subtotal	1,783	Subtotal	2,760	
FY 2003	2001 actual Highway Account receipts	26,900	2003 estimated Highway Account receipts	28,570	(4,369)
	less: 2001 TEA-21 estimated Highway Account receipts	28,506	less: 2003 TEA-21 estimated Highway Account receipts	29,471	
	less: look ahead result for 2001	1,862			
	Subtotal	(3,468)	Subtotal	(901)	

Note: Actual receipts reflect certified net tax receipts (excluding fines and penalties) after deduction of transfers and refunds for the first three quarters of the fiscal year plus an estimate for the fourth quarter. To account for the differences between actual and estimated receipts for the previous year's fourth quarter, Treasury makes an adjustment to the current fiscal year's receipts. Treasury prepares forecasts of tax receipts to the Highway Account of the Highway Trust Fund for the president's budget and other analyses. CBO prepared the estimates of Highway Account receipts contained in TEA-21.

Source: DOT and Treasury.

**Look Back Component Is the Major Reason for the Negative RABA Adjustment**

Eighty percent of the fiscal year 2003 RABA adjustment is attributable to the look back portion of the calculation. The actual fiscal year 2001 Highway Account receipts were about \$1.6 billion lower than projections in TEA-21. According to Treasury, the lower-than-expected highway excise tax receipts in fiscal year 2001 were due to several factors. Most importantly, the weakened economy contributed to a decline in highway

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excise taxes paid. All but one of the Highway Trust Fund receipt sources were lower in fiscal year 2001 than fiscal year 2000. For example, tax revenue from the retail tax on new trucks dropped 55 percent from fiscal years 2000 to 2001. Additionally, the rise in the use of gasohol contributed to decreased Highway Account receipts. The amount of gasohol receipts allocated to the Highway Account rose by 17.5 percent between fiscal years 2000 and 2001, which Treasury believes is evidence of an ongoing substitution of gasohol fuels for gasoline. Because gasohol is taxed at a lower rate than gasoline and a portion of the tax on gasohol is transferred to the General Fund, increases in gasohol use and corresponding reductions in gasoline use decrease Highway Account revenues. On February 11, 2002, we issued a report on the results of procedures we performed related to the distributions of excise tax revenue to the Highway Trust Fund in fiscal year 2001.<sup>12</sup> On the basis of this work, we believe the amounts distributed to the Highway Trust Fund for the first 9 months of fiscal year 2001, which were subject to IRS's quarterly excise tax certification process and which were adjusted on the basis of this process, were reasonable and were adequately supported according to available information.<sup>13</sup>

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**Look Ahead Component  
Also Contributed to  
Negative RABA  
Adjustment**

Although not the main factor, the look ahead portion of the RABA calculation also contributed to the overall negative RABA adjustment. As previously discussed, the look ahead is the difference between TEA-21's projections for the next fiscal year to current projections from the president's budget, which are prepared by Treasury. We did not

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<sup>12</sup>GAO-02-379R.

<sup>13</sup>Additionally, on the basis of our review, we believe the March 2001 adjustment made by Treasury to reduce fiscal year 2001 excise tax distributions to the Highway Trust Fund by \$1.2 billion was reasonable and adequately supported.

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independently evaluate the methodology and the economic models Treasury used to develop its revenue projections. However, on the basis of the general qualitative description Treasury provided us about its methodology and economic models used to develop Highway Trust Fund revenue projections, we have no reason to question the projections for fiscal year 2003. Treasury uses seven econometric models to forecast each highway excise tax revenue source, such as the tax on gasoline. These models seek to approximate the relationship between historical tax liability and current macroeconomic variables, such as the gross domestic product. This estimated relationship is the baseline, and Treasury uses it to project future excise tax liability, given current law and the administration's economic assumptions. After calculating future tax liability, Treasury forecasters convert the tax liability forecast to a tax receipts forecast using information on deposit rules, payment patterns, and actual collections.

The administration's economic assumptions drive the projections made with each model. According to Treasury, receipts forecasting is a policy exercise conducted for the president to show the state of all revenue sources—including the Highway Trust Fund—if the administration's economic assumptions were to come to fruition. Consequently, Treasury's forecasts incorporate economic assumptions formulated for the budget by the "Troika," which consists of the Council of Economic Advisors, OMB, and Treasury. Because the goal is to provide a forecast consistent with these economic assumptions, the models use these assumptions directly as explanatory variables, or link other explanatory variables to the assumptions provided. While several of the administration's economic assumptions are publicly available, such as the gross domestic product and consumer price index, most Troika assumptions are not publicly available, such as the projected price of gasoline. Other variables specific

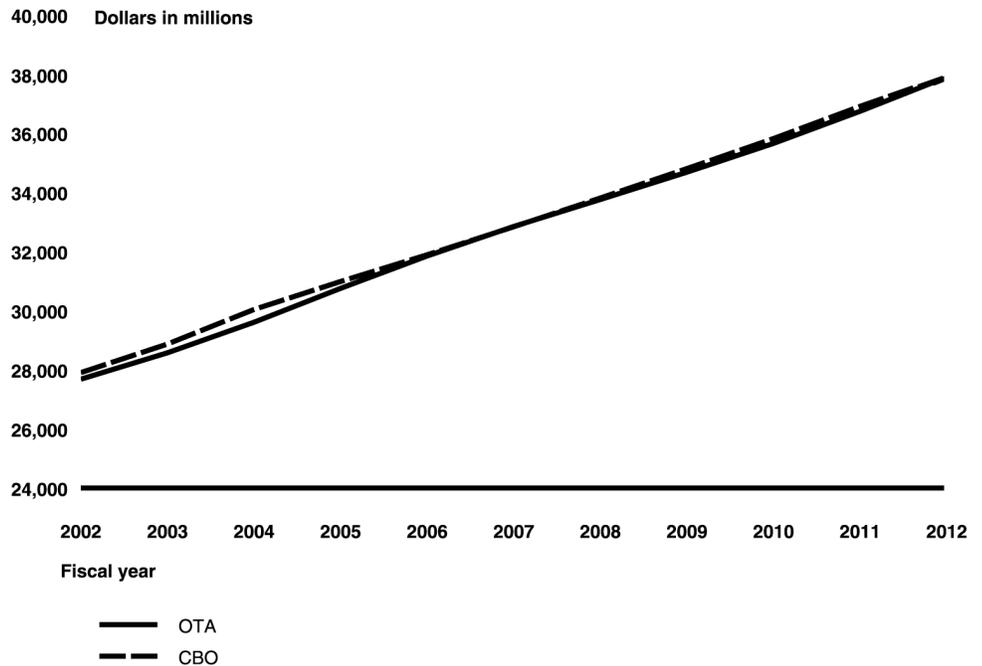
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to the Highway Trust Fund are included in the economic models. Treasury generally obtains this information from other federal agencies. For example, Treasury incorporates USDA's forecast of ethanol use in its gasohol model. However, according to Treasury, the forecasters must ensure that the addition of these other variables does not create inconsistencies between the projections and the administration's assumptions.

It should also be noted that Treasury does not try to predict future regulatory or legislative changes at the federal or state levels that could affect Highway Trust Fund revenue but bases its projections on current law. Any legislative or regulatory changes that affect Highway Trust Fund revenue will affect the accuracy of the forecasts. Treasury continuously updates its models to incorporate legislative, economic, and other relevant changes—which are then reflected in the next forecasting exercise.

In addition to reviewing qualitative descriptions of the Treasury's model, we also compared the model's projections with CBO's forecasts. This comparison did not raise any questions about the reasonableness of Treasury's projections. For example, despite different methodologies and assumptions, Treasury and CBO projections of Highway Account receipts for the budget window are very similar. (See fig. 3.) Both agencies forecast steady growth in receipts from fiscal years 2002 through 2012. For example, both Treasury and CBO project the average annual growth of highway-related excise taxes will be about 3 percent.

**Figure 3: Comparison of Treasury and CBO Projections of Highway Account Receipts, Fiscal Years 2002 to 2012**



Source: Treasury and CBO.

### \$600 Million Error in RABA Adjustment Occurred Outside of Treasury's Models

In January 2002, the administration announced that the fiscal year 2003 RABA adjustment would be a negative \$4.965 billion. The administration subsequently announced that an error had been made in calculating the RABA adjustment and that the correct amount was a negative \$4.369 billion—a \$600 million difference.

The error, which was made in Treasury's allocation of projected highway tax revenues to various accounts rather than in its economic models, affected the look ahead part of the fiscal year 2003 RABA calculation. Specifically, it occurred in Treasury's allocation of projected revenues from gasohol sales to the General Fund, the Leaking Underground Storage

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Tank Trust Fund, and the Highway and Transit Accounts within the Highway Trust Fund. In short, the error resulted in the incorrect distribution of projected gasohol receipts among the funds.

Because gasohol has six different blends—all with different tax rates and distributions—the gasohol allocations are complicated and require many “links” among several spreadsheets. With respect to gasohol, the Highway Account receipts are calculated after allocations for the other accounts—the Mass Transit Account, the Leaking Underground Storage Tank Trust Fund, and the General Fund—have been calculated. This is because the Highway Account is a “catch-all” for taxes that are not already attributed to other accounts. A misalignment occurred among the different spreadsheets used to distribute gasohol tax revenues to the different accounts, which caused too much of the gasohol revenues to be transferred to the General Fund. Consequently, the error incorrectly lowered projected Highway Account revenue beginning with fiscal year 2002.

According to a Treasury official, a number of factors contributed to the error, including tightened time constraints during this budget cycle for Treasury forecasters to calculate and review their projections for the fiscal year 2003 budget. Each forecaster is responsible for reviewing his/her own calculations. In hindsight, however, this official said that the internal quality checks his office made were insufficient, especially on the gasohol calculations, which are very complex. He noted that Treasury plans to take several steps to avoid such an error in the future, including requiring Treasury’s forecasters to have their projections spot-checked by other department forecasters.

## Possible Ways to Reduce RABA Fluctuations

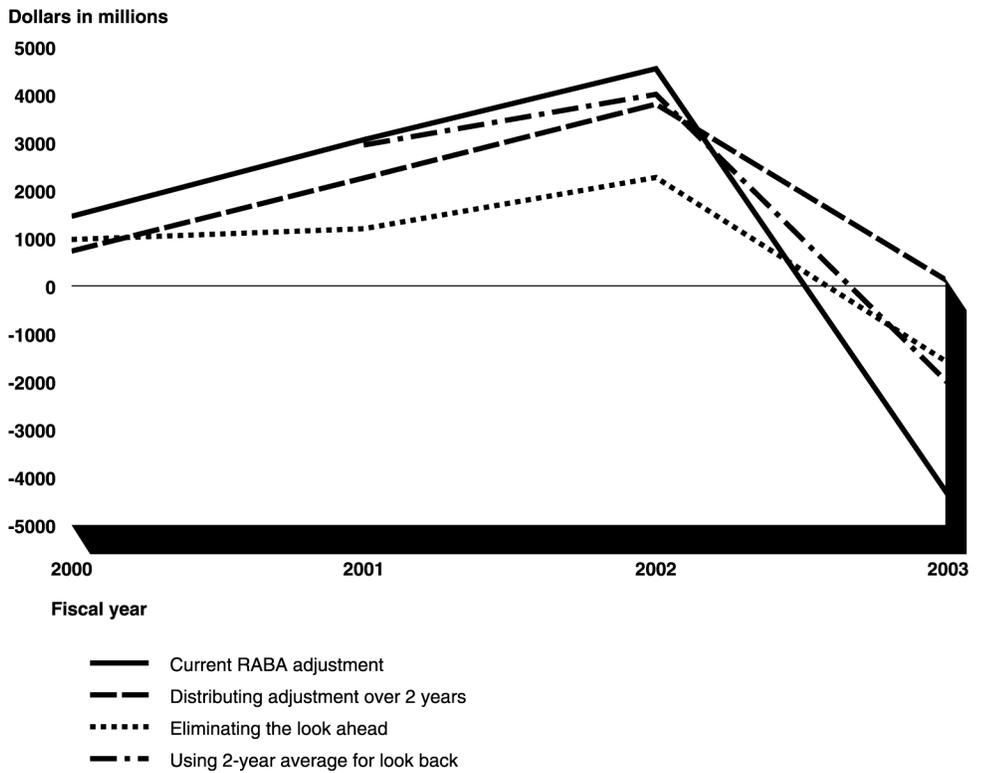
The RABA formula, as defined by TEA-21, contains look back and look ahead components that tend to accentuate the impact of any shifts in

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Highway Account receipts. For example, the recent downturn in the economy is reflected in several elements of the fiscal year 2003 RABA calculation. First, the actual receipts for fiscal year 2001 were lower than expected. Second, the downturn made it necessary for Treasury to correct for optimistic projections of fiscal year 2001 receipts made in December 1999. Third, the fiscal year 2003 projections are lower than those contained in TEA-21 because the updated projections reflect the current economic conditions.

Several changes could be made to reduce the potential for dramatic swings in funding for highway programs but maintain a tie to actual receipts credited to the Highway Account. For example, changes to the RABA adjustment that could smooth out the impact of significant funding changes could include (1) eliminating the look ahead part of the RABA calculation, (2) averaging the look back part of the calculation over 2 years, and (3) distributing the RABA adjustments over 2 years. In figure 4, we show the actual RABA adjustments under the current structure and the adjustments that would have been made using these three options from fiscal years 2000 through 2003.

**Figure 4: Comparison of Different RABA Options**



Source: GAO analysis.

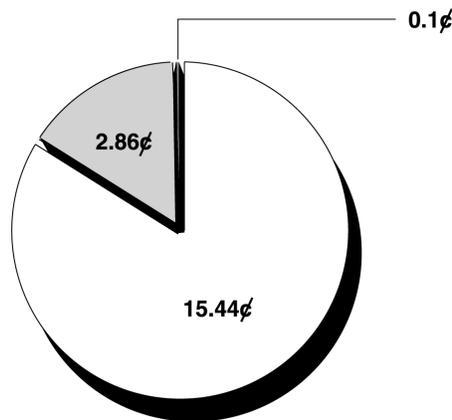
As shown in figure 4, the three options appear to produce less dramatic shifts in funding than the current RABA mechanism over the past 4 years. However, we did not analyze how these options would perform against different Highway Trust Fund scenarios or economic cycles in the future.

## Gasohol Use Has Significant Impact on Trust Fund Revenues

The use of gasohol instead of gasoline affects the amount of Highway Account revenue for two reasons. First, gasohol is partially exempt from the standard gasoline excise tax. Second, 2.5 cents of the tax received on each gallon of gasohol sold is transferred to the General Fund. (See fig. 5.) We estimate that the partial tax exemption resulted in \$3.86 billion in revenue forgone by the Highway Account during fiscal years 1998 through 2001.<sup>14</sup> We also estimate that the General Fund transfer reduced Highway Account revenue by \$2.15 billion during the same period.

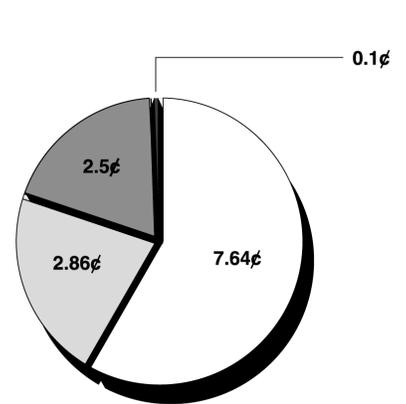
**Figure 5: Distribution of Gasoline and Gasohol Taxes to Different Accounts**

**Gasoline - 18.4 cents tax, per gallon**



Highway Account  
 Mass Transit Account  
 Leaking Underground Storage Tank Trust Fund

**Gasohol - 13.1 cents tax, per gallon**



Highway Account  
 Mass Transit Account  
 General Fund  
 Leaking Underground Storage Tank Trust Fund

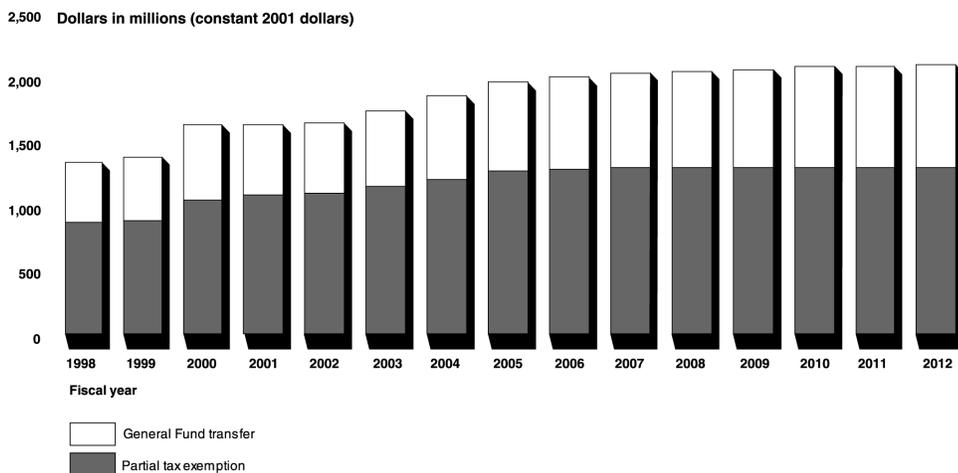
Note: This figure reflects the tax rate and distribution of the gasohol blend containing 90 percent gasoline and 10 percent ethanol. Tax rates and distributions for other gasohol blends vary according to the amount of ethanol contained in the blend.

Source: GAO analysis.

<sup>14</sup>All estimates of revenue forgone by the Highway Account are presented in constant 2001 dollars.

Treasury projects that gasohol use will continue to rise steadily through fiscal year 2012. According to Treasury, such an increase will occur at the expense of gasoline because some states are in the process of banning or phasing out the use of methyl tertiary-butyl ether (MTBE) as an oxygenate additive. Using Treasury's highway excise tax revenue projections, we estimate that the partial tax exemption will lower Highway Account revenue by a total of \$13.72 billion from fiscal years 2002 through 2012. We also estimate that the Highway Account will not receive \$2.36 billion due to the General Fund transfer from fiscal years 2002 through 2005, when the transfer ends.<sup>15</sup> In addition, if the amount of the transfer is not dedicated to the Highway Account following fiscal year 2005, we project that the Highway Account will forgo \$4.56 billion from fiscal years 2006 through 2012. Figure 6 depicts and table 3 summarizes the estimated revenue forgone from fiscal years 1998 to 2012 by the Highway Trust Fund because of the gasohol tax provisions.

**Figure 6: Estimated Revenue Forgone by the Highway Account Due to Gasohol Tax Provisions**



<sup>15</sup>The General Fund transfer expires at the end of fiscal year 2005. To reflect the expiration, Treasury reduces the total federal excise tax on gasohol blends by 2.5 cents per gallon starting in fiscal year 2006. Under Treasury's approach, the Highway Account is neither benefited nor harmed by the expiration. For the purposes of this testimony, we estimated the impact of the 2.5 cent General Fund transfer assuming the transfer continued through fiscal year 2012.

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Note: Estimates for fiscal years 1998 to 2000 are based on actual excise taxes collected. We estimated fiscal year 2001 receipts using actual receipts collected for the first three quarters and a projection of receipts collected for the fourth quarter. Estimates for fiscal years 2002 to 2012 are based on Treasury's projections. Estimates are in constant 2001 dollars.

Source: GAO analysis.

**Table 3: Estimated Revenue Forgone by the Highway Account Due to Gasohol Tax Provisions**

Dollars in millions (constant 2001 dollars)

Tax provision	1998 to 2001		2002 to 2012	
	Total	Average	Total	Average
Partial tax exemption	\$3,856	\$964	\$13,716	\$1,247
General Fund transfer	\$2,154	\$539	\$6,921	\$629
<b>Combined impact</b>	<b>\$6,011</b>	<b>\$1,502</b>	<b>\$20,637</b>	<b>\$1,876</b>

Note: Estimates for fiscal years 1998 to 2000 are based on actual excise taxes collected. We estimated fiscal year 2001 receipts using actual receipts collected for the first three quarters and a projection of receipts collected for the fourth quarter. Estimates for fiscal years 2002 to 2012 are based on Treasury's projections. Estimates are in constant 2001 dollars.

Source: GAO analysis.

According to USDA and ethanol industry officials, the partial tax exemption for gasohol is intended to create a demand for ethanol that will raise the price of ethanol at least to the point where producers can cover costs. These officials stated that if the partial tax exemption on ethanol was removed, the price of ethanol would no longer be competitive with the price of gasoline and the demand for ethanol would disappear. In this case, ethanol fuel production would not, for the most part, continue. Furthermore, ethanol industry officials we talked to warned that because a substantial amount of the corn grown in the United States is used for ethanol, the collapse of the ethanol industry would affect the corn and agriculture markets, which could in turn affect the federal government's agricultural support payments.

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## Industry Groups Propose Ways to Increase Highway Trust Fund Revenues

Industry groups have proposed a number of ways to increase Highway Trust Fund revenues in order to address future transportation needs. In 2000, DOT estimated that an average annual investment of \$56.6 billion would be needed over the next 20 years just to maintain the physical conditions of existing highways and bridges. Additionally, DOT estimated that an average annual investment of \$10.8 billion would be needed over the next 20 years to maintain the nation's transit systems. Under its current baseline, CBO estimates that trust fund outlays exceed revenues each year from fiscal year 2003 to fiscal year 2012. Therefore, CBO estimates that the Highway Account balance will be depleted in 2006 and that the balance of the Mass Transit Account will hit zero in 2009.<sup>16</sup> These projections coupled with certain trends, such as growing gasohol use and increased fuel efficiency, have contributed to concerns about the long-term ability of future Highway Trust Fund revenues to meet federal transportation needs.

Industry groups and others have advanced a number of proposals to increase future revenues, such as crediting the Highway Trust Fund for the interest earned on its balances, increasing the use of tolls, and/or establishing an indexing system to help ensure that gas tax rates are linked to inflation. Although each of these actions would increase Highway Trust Fund revenues, we have not evaluated their public policy implications. The discussion that follows is not intended to show support for any

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<sup>16</sup>CBO's baseline projections of tax receipts for fiscal years 2003 through 2012 incorporate the assumption that current tax laws remain in place and that scheduled changes and expirations occur on time. The only exception to that rule is the treatment of excise taxes dedicated to trust funds, including the Highway Trust Fund. For CBO's baseline projections of outlays for the Highway Trust Fund, CBO assumes that policy-makers will continue to control spending through obligation limitations set in annual appropriations acts. CBO's estimates of the fund's outlays are based on historical spending patterns. We did not evaluate CBO's methodology or projections.

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possible alternatives but instead to describe some of the possible ways that highway funding could be increased.

One way cited to enhance Highway Trust Fund revenues would be to allow the Highway Trust Fund to accumulate interest on its balance. Prior to TEA-21, the Highway Trust Fund earned interest on its balance, which was paid by the General Fund. According to Treasury figures, if this had been done throughout TEA-21, the Highway Trust Fund would have earned about \$4 billion from September 1999 through February 2002.

Another way to increase Highway Trust Fund revenues would be to increase highway excise taxes. Although no tax increase is attractive, there are some equity arguments that support an increase in certain highway user taxes. For example, for some time the Federal Highway Administration has reported that heavy trucks (trucks weighing over 55,000 pounds) cause a disproportionate amount of damage to the nation's highways and have not paid a corresponding share for the cost of the pavement damage they cause. Currently, heavy vehicles are taxed at the rate of \$100 per year plus \$22 for every 1,000 pounds (or fraction thereof) they weigh over 55,000 pounds. However, the tax is capped at \$550. In 2000, we reported that the Joint Committee on Taxation estimated that raising the ceiling on this fee to \$1,900 could generate about \$100 million per year.<sup>17</sup> Another option would be to restructure the existing truck-related user taxes. For example, according to CBO, replacing the three truck-related excise taxes (i.e., taxes on tires, sales of new trucks and trailers, and the use of heavy vehicles) with a single per-mile tax that is based on a vehicle's weight and number of axles would better align the

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<sup>17</sup>U.S. General Accounting Office, *Budget Issues: Budgetary Implications of Select GAO Work for Fiscal Year 2001*, GAO-OCG-00-8 (Washington, D.C.: Mar. 31, 2000).

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taxes a truck pays with the damage it does to the roads. Depending on the rate of taxation, this change could generate additional revenue for the Highway Trust Fund.

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In summary, Mr. Chairman, the Congress and the administration must ultimately assess the long-term ability of the Highway Trust Fund to meet surface transportation needs. The advantages and disadvantages of changing the trust fund revenue streams must be weighed against future transportation needs and other national priorities. The upcoming reauthorization of surface transportation programs provides an opportunity to explore proposals to increase trust fund revenues. We stand ready to assist the Congress in examining these issues.

This concludes my prepared remarks. I would be pleased to answer any questions you or other members of the subcommittee may have.

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## Contact and Acknowledgments

For questions regarding this testimony, please contact JayEtta Z. Hecker on (202) 512-2834 or at [heckerj@gao.gov](mailto:heckerj@gao.gov). Individuals making key contributions to this testimony included Nikki Clowers, Helen Desaulniers, Ted Hu, Mehrzad Nadji, Stephen Rossman, Steven Sebastian, Ron Stouffer, and James Wozny.

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