

**GAO**

Testimony

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Transit, and Pipelines, Committee on  
Transportation and Infrastructure, U.S.  
House of Representatives

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**HIGHWAY TRUST FUND**

**Overview of Highway Trust  
Fund Estimates**

Statement of Katherine Siggerud, Director  
Physical Infrastructure Issues





Highlights of [GAO-06-572T](#), a report to Subcommittee on Highways, Transit, and Pipelines, Committee on Transportation and Infrastructure, U.S. House of Representatives

## Why GAO Did This Study

The Highway Trust Fund is the principal mechanism for funding federal highway and transit programs through receipts from excise taxes charged to highway users, such as taxes on motor fuels. The Department of Treasury (Treasury) and the Congressional Budget Office (CBO) each prepare estimates of future receipts for the Highway Trust Fund semiannually. Treasury's receipt estimates are combined with the Department of Transportation's (DOT) estimates of outlays to create an estimate of the Highway Trust Fund balance for the President's Budget; CBO also projects outlays to develop an estimate of the fund balance. The agencies' most recent estimates show that the Highway Account within the Highway Trust Fund could have a negative balance as early as 2009, raising concerns about whether funding for federal highway programs—which were recently authorized by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users—will continue to be met. Consequently, the Subcommittee asked us to review and compare recent estimates made by Treasury and CBO. This testimony provides information on how (1) estimates are used to provide key information about the Highway Trust Fund, (2) the most recent Highway Trust Fund estimates—based on receipt estimates made by Treasury and CBO—compare, and (3) Treasury's and CBO's estimates compare to actual receipts for recent years.

[www.gao.gov/cgi-bin/getrpt?GAO-06-572T](http://www.gao.gov/cgi-bin/getrpt?GAO-06-572T).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Katherine Siggerud, (202) 512-2834, [siggerudk@gao.gov](mailto:siggerudk@gao.gov).

# HIGHWAY TRUST FUND

## Overview of Highway Trust Fund Estimates

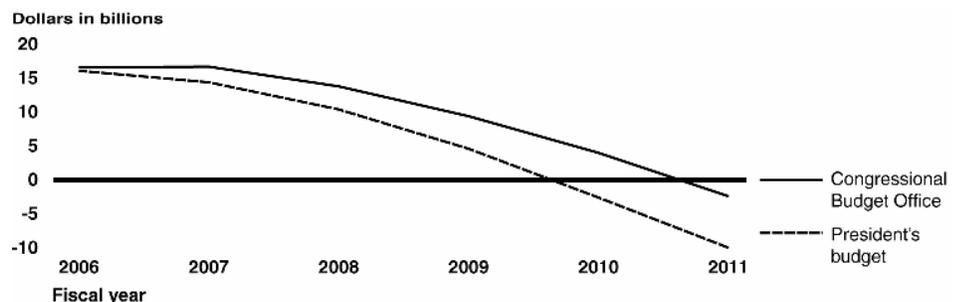
### What GAO Found

Due to the nature of the receipts and disbursement processes of the Highway Trust Fund, estimates are used regularly not only to project the Highway Trust Fund's future balance, but also to determine its current balance. Treasury's receipts collection processes for the Highway Trust Fund rely on estimates based on historical receipts to determine how much should be transferred from the General Fund into the Highway Trust Fund on a semimonthly basis. DOT and the Office of Management and Budget (OMB) also use estimates based on future receipts in calculating annual adjustments to authorization levels, and DOT uses estimates based on historical fuel consumption to determine apportionments from the Highway Trust Fund to states. Because estimates are used throughout the process of collecting and disbursing funds for the Highway Trust Fund, it is important that estimates be as accurate as possible.

The most recent Highway Trust Fund estimates from the President's Budget and CBO show similar trends, even though Treasury and CBO use different assumptions to estimate receipts for the fund. The Highway Trust Fund balance is projected to steadily decline because estimated outlays of the Highway Account exceed estimated revenues each year from 2006 through 2011. Treasury projects lower receipts levels than CBO, and therefore the President's Budget contains estimates of negative Highway Trust Fund balances occurring one year earlier than CBO is projecting. The differences in receipts estimates developed by Treasury and CBO are caused in part by the use of different economic assumptions, such as economic growth and fuel prices.

When compared with actual Highway Trust Fund receipts, the accuracy of Treasury's and CBO's Highway Trust Fund estimates are not very different from each other. Neither agency's estimates have been consistently closer or further away from the actual amounts. For example, the estimates of the two agencies are closest or furthest from actual receipts in the same years. These comparisons of past performance should not be taken as an indicator of the future performance of the models.

**Current Highway Trust Fund Year-End Balance Estimates**



Source: GAO analysis of data provided in the President's Budget and by CBO.

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Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to testify on important Highway Trust Fund issues. The Highway Account within the Highway Trust Fund is the principal mechanism for funding federal highway programs authorized by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU set specific annual funding levels for most federal highway programs on the basis of projected receipts to the Highway Trust Fund for fiscal years 2005 through 2009. The Department of the Treasury (Treasury) and the Congressional Budget Office (CBO) each prepare estimates of future receipts for the Highway Trust Fund biannually. Treasury's receipt estimates are combined with the Department of Transportation's (DOT) estimates of outlays to create an estimate of the Highway Trust Fund balance for the President's Budget; CBO also projects outlays to develop an estimate of the Highway Trust Fund balance. The agencies' most recent estimates show that the Highway Account within the Highway Trust Fund could have a negative balance as early as 2009, raising concerns about whether funding for federal highway programs—which were recently authorized by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users—will continue to be met.

Consequently, the Subcommittee asked us to review and compare recent estimates made by Treasury and CBO. Accordingly, this testimony provides information on how (1) estimates are used to provide key information about the Highway Trust Fund, (2) the most recent Highway Trust Fund estimates—based on receipt estimates made by Treasury and CBO—compare, and (3) Treasury's and CBO's estimates compare to actual receipts for recent years. (All years in this statement are fiscal years. See app. I for information on our scope and methodology.)

In summary:

- Because of the nature of the Highway Trust Fund receipt and disbursement processes, estimates are used regularly to determine and project the balance of the Highway Trust Fund. Treasury's processes for allocating tax receipts to the Highway Trust Fund regularly rely on estimates based on historical receipts to determine how much should be transferred from the General Fund into the Highway Trust Fund, because Treasury does not obtain data from business taxpayers on the type of excise tax it collects. DOT and the Office of Management and Budget (OMB) also use estimates based on future receipts in calculating annual adjustments to authorization levels, and DOT uses estimates based on

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historical fuel consumption to determine apportionments from the Highway Trust Fund to the states. Because estimates are used to make semimonthly receipt transfers into the Highway Trust Fund, to calculate adjustments to the Fund, and to identify appropriate funding authorization levels for budget planning and legislation—like SAFETEA-LU—it is important that estimates be as accurate as possible.

- The most recent Highway Trust Fund estimates contained in the President’s Budget and those released by CBO show similar trends, with balances estimated to continue to decline into 2011. The Highway Trust Fund balance is gradually being depleted because estimated outlays of the Highway Account exceed estimated revenues each year from 2006 through 2011. Treasury estimates lower receipts levels than CBO during this period, and therefore the President’s Budget contains estimates of negative Highway Trust Fund balances occurring one year earlier than CBO is projecting. The differences in receipts estimates developed by Treasury and CBO are caused, in part, by the use of different economic assumptions, such as economic growth and fuel prices.
- When compared with actual Highway Trust Fund receipts, the accuracy of Treasury’s and CBO’s Highway Trust Fund estimates are not very different from each other. Neither agency’s estimates have been consistently closer or further away from the actual amounts. For example, the estimates of the two agencies are closest or furthest from actual receipts in the same years. These comparisons of past performance should not be taken as an indicator of the future performance of the models.

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## Background

The Highway Trust Fund was established in 1956 to provide a dedicated source of federal funding for highways. In 1983, the Highway Trust Fund was divided into two accounts: the Highway Account and the Mass Transit Account. Periodically, Congress enacts multiyear legislation, such as SAFETEA-LU, authorizing federal spending for the nation’s surface transportation programs—including highway, transit, highway safety, and motor carrier programs—and setting overall funding for these activities. Funding for the federal-aid highway program is provided through the Highway Trust Fund, a “pay as you go” system that uses receipts from

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highway user excise taxes to fund various surface transportation programs.<sup>1</sup>

Receipts for the Highway Trust Fund are derived from two main sources: federal excise taxes on motor fuels (gasoline, diesel, and special fuels taxes) and truck-related taxes (truck and trailer sales, truck tires, and heavy-vehicle use taxes). Someone other than the consumer generally pays the excise taxes directed to the Highway Trust Fund. The highway user pays the other taxes indirectly, since these taxes become part of the purchase price. Thus, the motor fuels taxes are paid by businesses rather than consumers at retail pumps. Oil companies, for example, typically pay a per-gallon tax on the motor fuels when their fuel is loaded into tanker trucks or rail cars at a terminal. Tire manufacturers pay taxes on truck tires, and retailers pay taxes on the sales price of new trucks and trailers. Owners of heavy highway vehicles—trucks weighing 55,000 pounds and over—pay taxes on the use of these vehicles, making this the only highway tax directly paid by the highway user.

Receipts from the gasoline tax constitute the single largest source of revenue for the Highway Account, and approximately 84 percent of the receipts from the gasoline tax go to this account. Overall, the Highway Account receives the majority of the tax receipts for the Highway Trust Fund, including all receipts from truck-related taxes. Table 1 shows the amount of motor fuels and truck-related taxes levied for the Highway Trust Fund and how receipts from the taxes are allocated between the Highway Account and the Mass Transit Account within the fund.

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<sup>1</sup>The federal-aid highways program is funded by contract authority contained in SAFETEA-LU. Appropriation acts contain an obligation limitation reflecting the authorized level, including an adjustment based on revenue. Obligations made against the Highway Trust Fund can exceed the actual cash balances up to the receipts anticipated to be collected in the following 2 years.

**Table 1: Federal Highway User Excise Taxes and the Percentage Allocations to the Highway Account and the Mass Transit Account of the Highway Trust Fund, as of March 1, 2006**

Motor fuel taxes		Distribution of tax	
		Highway Account	Mass Transit Account
Type of Excise Tax	Tax rate (cents)		
Gasoline	18.3 per gallon	84%	16%
Diesel	24.3 per gallon	88%	12%
Gasohol	18.3 per gallon	84%	16%
Liquefied petroleum gas	13.6 per gallon	84%	16%
Liquefied natural gas	11.9 per gallon	84%	16%
M85 (from natural gas)	9.15 per gallon	84%	16%
Compressed natural gas	48.54 per thousand cubic feet	80%	20%
Truck-related Taxes - All proceeds to Highway Account			
Tires	9.45 cents for each 10 pounds (so much of the maximum rated load capacity thereof as exceeds 3,500 pounds)		
Truck and trailer sales	12 percent of retailer's sales price for tractors and trucks over 33,000 pounds Gross Vehicle Weight (GVW) and trailers over 26,000 pounds GVW		
Heavy-vehicle use	Annual tax for trucks 55,000 pounds and over GVW: \$100 plus \$22 for each 1,000 pounds (or fraction thereof) in excess of 55,000 pounds. Maximum tax: \$550		

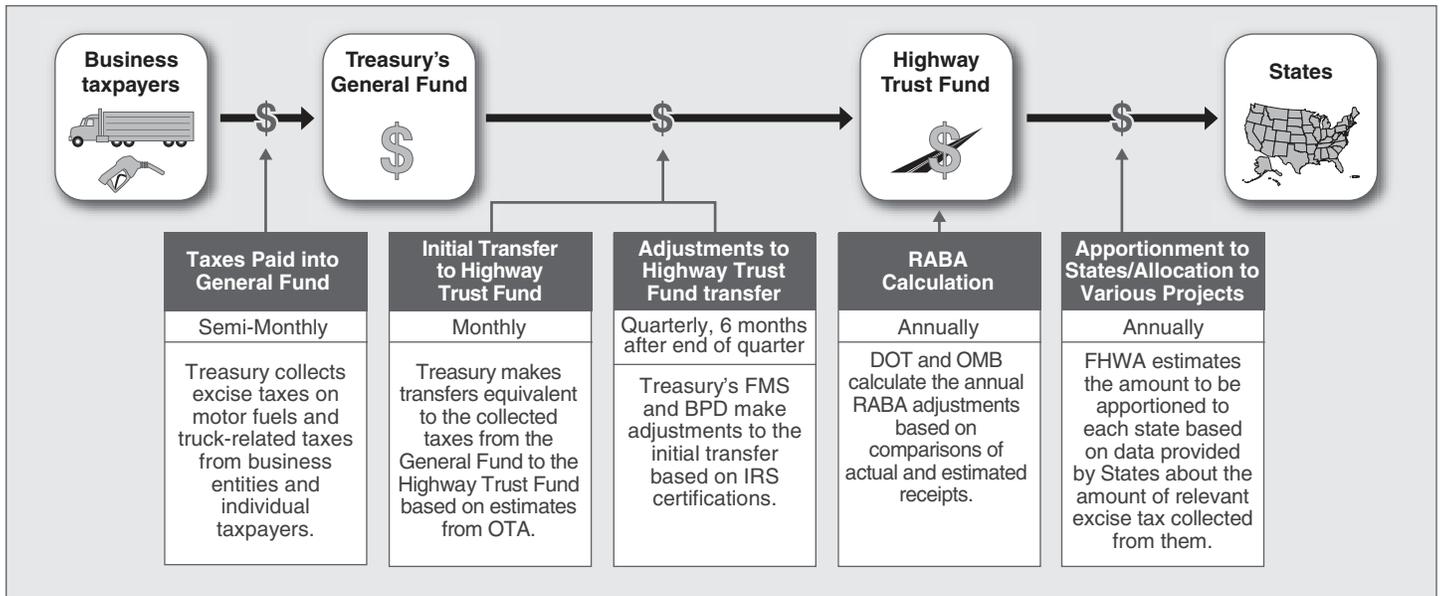
Source: GAO analysis of FHWA data.

## Estimates Are Integral to Determining Highway Trust Fund Receipts and Distributions

The nature of the Highway Trust Fund's receipts collection and disbursement processes is such that estimates are needed not only to project the fund's future balance but also to determine its current balance. Changing circumstances—for example, shifts in motor fuel usage—can affect the accuracy of past estimates of receipts that will flow into the Highway Trust Fund, rendering it necessary to make regular adjustments. Treasury's estimates of Highway Trust Fund receipts are used to make these regular adjustments to the Highway Trust Fund balance, and DOT uses these estimates in turn to calculate what is called the Revenue Aligned Budget Authority (RABA) adjustment, which can increase or decrease the levels of funding enacted by legislation and funded through the Highway Account.

The process for collecting and distributing Highway Trust Fund moneys is summarized in figure 1. As it shows, the basic process involves receiving money from business entities and individual taxpayers, passing it into Treasury's General Fund and determining how much should be transferred into the Highway Trust Fund, determining how much is available in the Highway Trust Fund for disbursement, and then distributing this money to the states or allocating it to specific projects.

**Figure 1: Process for Collecting and Distributing Highway Trust Fund Receipts**



Sources: GAO; MapArt.

**Collection and determination of Highway Trust Fund receipts.** The collection and allocation of the receipts is complex and involves several organizations. Twice a month, business taxpayers make deposits of excise taxes—including the highway user excise taxes levied for the Highway Trust Fund—generally through Treasury’s Electronic Federal Tax Payment System. When these semimonthly deposits are made, Treasury does not obtain data from business taxpayers on the type of excise taxes (highway user or otherwise) that these deposits are intended to cover; therefore, the deposits flow into Treasury’s General Fund. On a semimonthly basis, Treasury’s Financial Management Service (FMS) and Bureau of Public Debt (BPD) use estimates made by the Treasury’s Office of Tax Analysis (OTA) based on historical tax receipts certified by Internal Revenue Service (IRS) data and actual total current excise tax revenue collections to make an initial transfer into the Highway Trust Fund. Treasury later adjusts these initial deposits based on actual tax receipts, which are certified by IRS on a quarterly basis 6 months after each quarter

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has ended.<sup>2</sup> Information about the actual Highway Trust Fund receipts is therefore subject to a lag between when the tax is paid to Treasury by the business entity or taxpayer, when IRS certifies the receipts, and when Treasury adjusts the Highway Trust Fund accordingly.

**Determination of Highway Trust Fund monies available for disbursement.** DOT and OMB are involved in calculating an adjustment to the amounts authorized and available for obligation based on Highway Trust Fund receipts; these calculations also depend on estimates. Since fiscal year 2000, DOT and OMB have been responsible for calculating and making the annual RABA adjustment, which ties highway funding to receipt levels. To determine the RABA adjustment, DOT and OMB rely on information about past Highway Account receipts and estimates of future Highway Account receipts from Treasury. The RABA adjustment, based on a comparison of actual and estimated receipt data, can increase or decrease the guaranteed levels of funding enacted by legislation and funded through the Highway Account.

**Apportionment to states and allocation to projects.** The Federal Highway Administration (FHWA) of DOT apportions funding to the states on a formula basis using estimates of each state's relative contribution of taxes to the Highway Trust Fund. Because businesses, rather than consumers, generally pay highway user taxes, most of the federal motor fuels and truck taxes come from the handful of states where those businesses have their corporate headquarters and pay their taxes. As a result, Treasury does not provide FHWA with state-level data on highway tax receipts, and FHWA must therefore estimate these data in order to distribute highway program funds to the states. FHWA estimates state-level contributions through what it refers to as its "attribution process." Through this process, it determines each state's share of highway motor fuels usage on the basis of data about such things as gas and diesel fuel consumption from each state's records on the collection of state-imposed fuel taxes. FHWA uses these data to estimate the Highway Account receipts attributable to each state's highway users as well as other data to ultimately determine the apportioned amounts of funding that should flow to a state for highway programs funded from the Highway Account.

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<sup>2</sup>IRS certifies the Quarterly Federal Excise Tax Return (Form 720) that taxpayers are required to submit to report their excise tax liability. Form 720 contains information that ultimately determines how these receipts should be distributed to government trust funds, including the Highway Trust Fund.

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Because of the extensive use of estimates in determining the Highway Trust Fund balance, it is not surprising that estimates of amounts that will be available in future years may be subject to considerable change. While a future balance of the Highway Trust Fund can be calculated as the difference between receipts and outlays (spending) over the life of the fund, a determination of this future balance can change as more up-to-date information becomes available.<sup>3</sup> For example, Treasury's estimates of Highway Trust Fund receipts for 2005 have changed every year since the initial estimate was made in 2000. Various factors, economic and otherwise, can cause them to change.<sup>4</sup> Because estimates are used in determining the initial transfer to the Highway Trust Fund, in calculating the RABA adjustment, and in identifying appropriate funding authorization levels for budget planning and legislation, such as SAFETEA-LU, it is important that estimates be as accurate as possible.

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## Recent Highway Trust Fund Estimates Show Similar Trends, Even Though Different Assumptions are Used in Making the Estimates

Highway Trust Fund estimates contained in the President's Fiscal Year 2007 Budget—based on receipts estimates from Treasury and outlay estimates from DOT—and those released by CBO in January 2006 project different balances, but the trends are similar. For example, the estimates show that CBO is projecting higher year-end Highway Trust Fund balances than the President's Budget for fiscal years 2006 through 2011, but both show declining balances over that period.<sup>5</sup> Both sets of estimates project a negative Highway Trust Fund balance by the end of fiscal year 2011; but the President's Budget projects the depletion of the Fund by 2010 and CBO's estimates show a negative balance occurring in 2011. More specifically, the Highway Account—which makes up the majority of Highway Trust Fund receipts—is projected to have a negative balance as early as 2009, because of the growing difference between projected receipts and outlays. The variation in economic assumptions used by Treasury and CBO, such as those for gross domestic product and fuel

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<sup>3</sup>Outlays during a fiscal year may be for payment of obligations incurred in prior years or in the same year. Outlays, therefore, flow in part from unexpended balances of prior year budgetary resources and in part from budgetary resources provided for the year in which the money is spent.

<sup>4</sup>Additionally, estimates do not include RABA adjustments, which also can have an effect on balances.

<sup>5</sup>For the purposes of this study we are using Highway Trust Fund year-end balance estimates released by CBO in January 2006 and by the President's Fiscal Year 2007 Budget in February 2006 as the current or most recent estimates.

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prices, accounts for part of the difference in Highway Account receipt estimates.<sup>6</sup>

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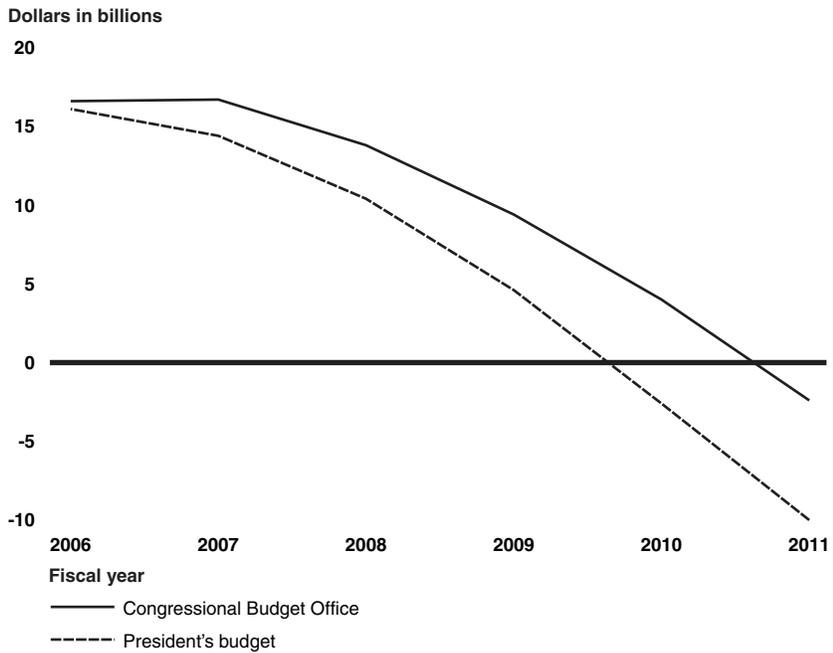
### Estimates Result in Similar Trends, but Diverge over Time

Both the President's Budget and CBO's estimates currently show a continuing downward trend of cash balances in the Highway Trust Fund, and both estimates show a negative balance in the Highway Trust Fund by fiscal year 2011. Differences between the estimates are greater in the later years because the uncertainty of estimates increases as the projections extend into the future. As figure 2 shows, CBO estimates higher year-end balances for every year through 2011, projecting a balance of negative \$2.4 billion at the end of 2011, while the President's Budget estimates project a negative balance occurring first in 2010 and reaching an estimated negative \$10 billion by 2011. It should be noted, however, that legislative or economic changes affecting Highway Trust Fund receipts occurring in the interim could change these projected negative balances. For example, a number of changes, such as provisions to reduce tax evasion that provided increased receipts to the Highway Trust Fund, were adopted in the American Jobs Creation Act of 2004.

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<sup>6</sup>In 2002, in order to help determine the reasonableness of Treasury's estimates, we compared them with CBO's estimates. This comparison did not raise any questions about the reasonableness of Treasury's estimates. (See the list of related GAO products at the end of this testimony.)

**Figure 2: Current Highway Trust Fund Year-End Balance Estimates**



Source: GAO analysis of data provided in the President's Budget and by CBO.

The Highway Account, which makes up about 84 percent of the Highway Trust Fund receipts, is projected to have a negative balance by the President's Budget estimates in 2009 and by CBO in 2010. Projected outlays are outpacing estimated receipts, which leads to the projected negative balances in the Highway Account and ultimately the Highway Trust Fund. For example, for 2006 through 2011, the Highway Account receipts are estimated to average \$35.8 billion by Treasury and \$37.4 billion by CBO. For that same period, average outlays are estimated at \$39.6 billion by DOT and \$40.3 billion by CBO. See table 2 for receipt and outlay estimates for 2006 through 2011.

**Table 2: Highway Account Receipt and Outlay Estimates for 2006 through 2011, as of March 1, 2006**

		Estimates Dollars in Billions						
		2006	2007	2008	2009	2010	2011	Average 2006-2011
Treasury/DOT	Receipts	\$34.1	\$34.6	\$35.4	\$36.2	\$36.9	\$37.6	\$35.8
	Outlays	\$34.5	\$38.2	\$39.7	\$40.8	\$41.8	\$42.3	\$39.6
	Difference	-\$0.40	-\$3.60	-\$4.30	-\$4.60	-\$4.90	-\$4.70	-\$3.80
CBO	Receipts	\$34.9	\$35.9	\$36.9	\$37.9	\$38.8	\$39.7	\$37.4
	Outlays	\$34.9	\$37.9	\$40.5	\$41.7	\$42.7	\$43.8	\$40.3
	Difference	\$0.00	-\$1.94	-\$3.58	-\$3.81	-\$3.89	-\$4.07	-\$2.90

Source: GAO analysis of data provided by DOT and CBO.

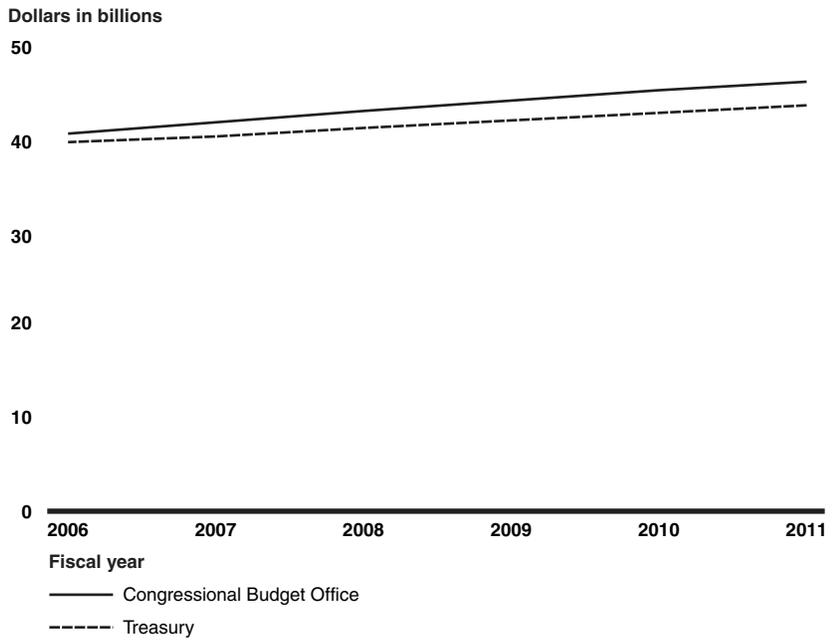
In addition to the current estimates, we also reviewed Treasury’s and CBO’s annual estimates for 1999 through 2006. These historical estimates showed that although estimates have been further apart and closer together at different times, the projected trends have been similar. For example, in the winter 1998 estimates, both Treasury and CBO projected Highway Trust Fund receipts to decline over \$4 million between 1999 and 2000, before experiencing a steady increase from 2000 through 2003. These historical estimates also show that for the last four budget forecasts, starting with estimates for 2003, CBO has estimated higher Highway Trust Fund receipts levels than Treasury in each year.

### Differences in Estimated Balances Are Largely Due to Differing Assumptions about Future Receipts

Differences in receipts estimates, that is, the amounts estimated to be collected through federal excise taxes on fuels and truck-related taxes, appear to be the driving factor in the difference between the two estimated balances. (See fig. 3 for current Treasury and CBO receipts estimates.) Treasury and CBO officials indicated that differences in receipts estimates are not unusual, given the different economic assumptions used by each of the models.<sup>7</sup> DOT’s outlays are based on currently enacted law, and CBO’s are based on historical spending patterns; however, the resulting estimates are not very different. As figure 4 illustrates, estimates of outlays track much more closely than do estimates of receipts over the same period of time.

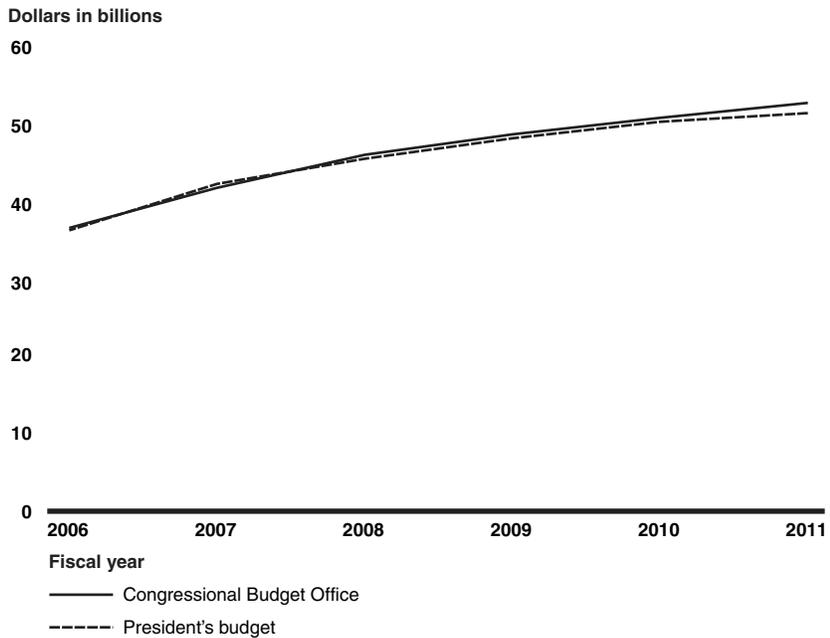
<sup>7</sup>How each organization constructs its tax models, generally referred to as technical differences, are also an important factor in the differences between Treasury’s and CBO’s estimates.

**Figure 3: Current Treasury and CBO Estimates of Highway Trust Fund Receipts**



Source: GAO analysis of data provided by Treasury and CBO.

**Figure 4: Current estimates of Highway Trust Fund outlays**



Source: GAO analysis of data provided in the President's Budget and by CBO.

Treasury and CBO develop Highway Trust Fund estimates for different purposes: Treasury's estimates are used and reported in the President's Budget, and CBO's estimates aid Congress in formulating budget policy. Both agencies use models to make Highway Trust Fund estimates twice a year, once in the summer and once in the winter. Neither model predicts future regulatory or legislative changes that could affect Highway Trust Fund receipts. As a result, any changes that affect Highway Trust Fund receipts will affect the accuracy of the estimates.<sup>8</sup> Despite their differing assumptions about economic policy, the two sets of estimates are very close. For example, the President's Budget estimates show that the Highway Trust Fund year-end balance for 2006 will be \$16.1 billion, and CBO estimates it will be \$16.6 billion—a difference of about 3 percent. Treasury and CBO officials told us that, although their models and assumptions differ, their near-term estimates are generally not that different. We did not evaluate the models and assumptions used by either agency.

<sup>8</sup>Treasury's model generally assumes that the proposals contained in the President's Budget will be enacted.

A major driver of Highway Trust Fund receipts is the economy and assumptions about the economy. Both receipts and outlays are affected by changes in economic conditions. This sensitivity complicates budget planning because errors in economic assumptions lead to errors in estimates. Treasury and CBO officials attributed the current differences in estimates, in part, to the economic assumptions used in the models, such as economic growth and the relative prices of fuel. For example, at the time of the 2007 President's Budget, the administration's estimate for real gross domestic product (GDP) growth—which is used in Treasury's estimates—is below CBO's for 2006 through 2009; but for 2006 through 2011, the administration and CBO project similar percent average annual growth rates (3.2 and 3.3, respectively). (See table 3 for real GDP growth rate estimates.)

**Table 3: Comparison of Real GDP Growth Rate Assumptions between 2007 President's Budget and CBO**

<b>Real GDP assumptions</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>Average 2006-2011</b>
2007 Budget	3.4%	3.3%	3.3%	3.1%	3.1%	3.1%	3.2%
CBO	3.6%	3.4%	3.4%	3.3%	3.0%	2.8%	3.3%

Source: 2007 President's Budget.

Treasury's estimates incorporate economic assumptions formulated for the President's Budget by the "Troika," which consists of the Council of Economic Advisors, OMB, and Treasury. The Troika's economic assumptions are used in estimates contained throughout the President's Budget and are not limited to Highway Trust Fund estimates. Several of the administration's economic assumptions, such as those for the real GDP and consumer price index, are publicly available. However, most Troika assumptions are not publicly available. The economic and technical assumptions on which Treasury's Highway Trust Fund estimates are based represent estimates of what is most likely to occur if the President's policies included in the Budget are enacted and implemented. Thus, they may not match the "actual" data if some of the President's policies are not enacted and implemented, if an understanding of the effects of policies or the underlying relationships is less than perfect, or if unexpected events occur. By comparison, CBO's model projects future highway excise tax receipts by looking at past and expected changes in relative fuel prices as well as historical relationships between sources of Highway Trust Fund receipts and real economic growth and by holding current law constant. For example, estimates of fuel consumption depend on estimates of economic growth, relative fuel prices, and average fuel efficiency, which

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are then multiplied by the current federal tax rate on fuel. CBO's estimates of Highway Trust Fund receipts are added to CBO's estimates of other sources of federal revenues in order to generate projections of total federal revenues. Both Treasury and CBO continuously update their models to incorporate legislative, economic, and other relevant changes—which are then reflected in the next forecasting exercise.

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## Accuracy of Treasury's and CBO's Estimates of Receipts Has Been Comparable

When Treasury's and CBO's estimates of receipts are compared with actual Highway Trust Fund receipts, both agencies' track records, in terms of how close their estimates come to the actual amounts, are not very different. Neither agency is consistently closer: Treasury's estimates have been closer to actual receipts in some instances and CBO's in others. However, these comparisons should not be taken as an indicator of the future performance of the models.

Before looking at the results, it is necessary to explain more precisely what we compared, and how. Each year, Treasury and CBO estimate Highway Trust Fund receipts for at least the next 6 years. In forecasting, estimates of what will occur within a year or two are generally more reliable than estimates of what may occur several years later, because the longer the period involved, the greater the opportunity for conditions to change in unexpected ways. We focused our analysis on Treasury's and CBO's 1-year and 2-year estimates—for example, what the two agencies estimated in 2000 as the Highway Trust Fund receipts in 2001 and 2002. We compared the annual estimates of receipts made by each agency in 1998 through 2004 to actual Highway Trust Fund receipts that were collected 1 year and 2 years after the estimates were made.<sup>9</sup>

On average, the two agencies were nearly identical in the degree to which their 1-year estimates mirrored actual results, and Treasury's estimates were slightly better in the degree to which 2-year estimates mirrored actual results. As figure 5 shows, Treasury's 1-year estimates were off by an average of 5.74 percent, while CBO's were off by 5.77 percent.<sup>10</sup> This

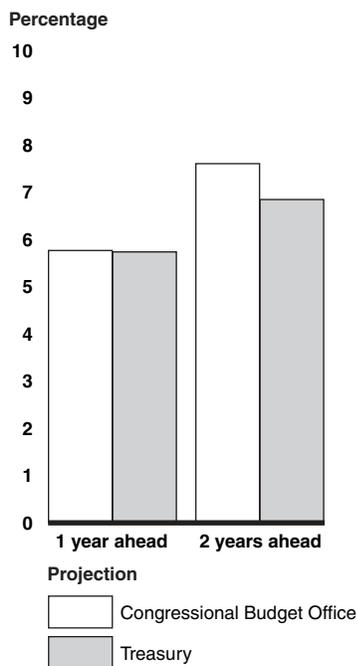
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<sup>9</sup>To make the comparison, we used actual receipt data reported in the President's Budget. Our comparisons were for the entire Highway Trust Fund, including both the Highway Account and the Mass Transit Account. We were unable to assess estimates made for years after 2005 because we did not have data points of actual results for the analysis.

<sup>10</sup>The comparison period covered forecasts for fiscal years 1999 through 2005. The percentages are based on the absolute value of the forecast, which is the difference—regardless of whether it is positive or negative—between the actual and the forecasted values for each year.

translates to an average difference between estimates and actual receipts of about \$1.9 billion each year.<sup>11</sup> For 2-year estimates, Treasury's estimates differed from actual receipts, on average, by about 6.85 percent, while CBO's estimates differed by about 7.61 percent. These differences translate to about \$2.3 billion for Treasury's forecast and about \$2.6 billion for CBO's, on average, each year.

**Figure 5: Accuracy of Treasury and CBO Estimates Made in 1998-2004 for Highway Trust Fund Receipts 1 Year and 2 Years Ahead of the Estimates**



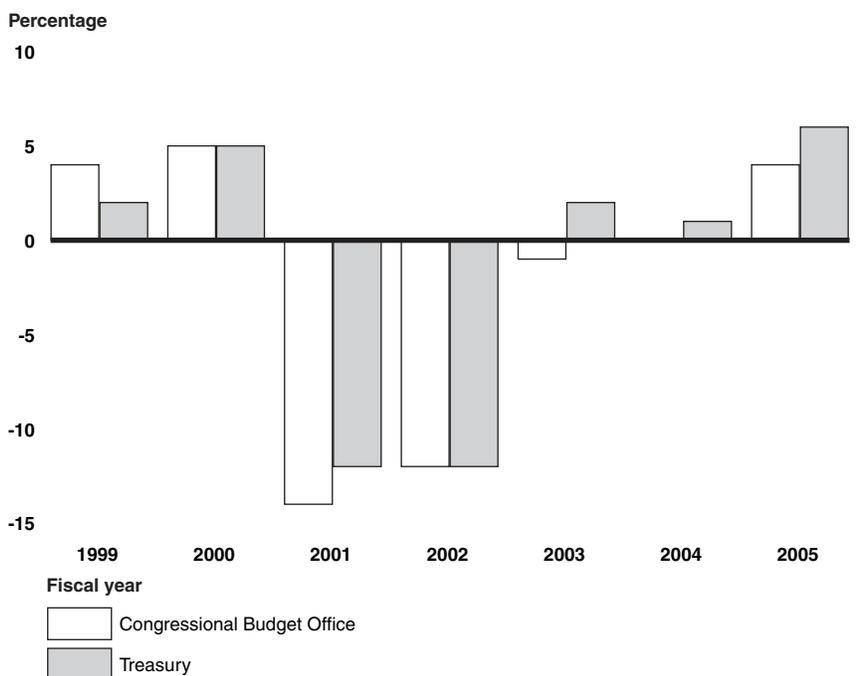
Source: GAO analysis of data provided by Treasury and CBO.

A comparison of the results for each year showed that both agencies' estimates also followed a similar pattern in how far they were off from actual amounts in any given year, and whether their estimates were too low or too high. Figure 6 shows the year-to-year results for the 1-year estimates. While there were some differences, the estimates from both agencies followed the same general trend. For example, both agencies'

<sup>11</sup>The dollar value represents Mean Absolute Error (MAE,) which is the average value of the difference between estimated and actual receipts, regardless of whether it is positive or negative—over the comparison period.

estimates were furthest from actual amounts in the same 2 years—fiscal years 2001 and 2002. In those years, both agencies' 1-year estimate was above the actual receipts by 12 percent or more. In those 2 years, a weakened economy led to a decline in highway excise taxes paid.

**Figure 6: Accuracy of Annual Treasury and CBO Estimates Made for Highway Trust Fund Receipts 1 Year Ahead of the Estimates**



Source: GAO analysis of data provided by Treasury and CBO.

These comparisons of historical performance, while interesting, should not be taken as an indicator of the future performance of the two models. However, the results tend to move in tandem, suggesting that both models are likely to predict the same kinds of results. We did not collect detailed information on factors and assumptions used in the models because some of the information used in Treasury's model is based on economic assumptions by the administration that are not publicly available. To evaluate these models, one would need to analyze and test the various components of each model—something we did not do.

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## Concluding Observations

Treasury's and CBO's estimates of Highway Trust Fund receipts play an important role not only determining appropriate levels of funding for transportation programs, but also for distributing the funds to states for approved highway and transit projects. Even though the estimates from both agencies have tended to perform similarly, the estimates continue to change with each forecasting exercise, making it difficult for those relying on the estimates to anticipate future Highway Trust Fund balances. However, because changes in economic conditions or legislation are hard to foresee, there is no easy solution to this problem. While the Highway Trust Fund may not reach a negative balance within 5 years as current forecasts project, the trend of declining balances is clear, a trend that the Congress and the administration have already begun to address through two commissions charged with reviewing and making recommendations on issues affecting the Highway Trust Fund.

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Mr. Chairman, this concludes my prepared statement. I would be pleased to respond to any questions that you or the other Members of the Subcommittee might have.

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## GAO Contacts and Staff Acknowledgement

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# Appendix I: Scope and Methodology

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To identify why estimates are used to provide key information about the Highway Trust Fund, we reviewed Department of Transportation (DOT) documents and prior GAO reports on Highway Trust Fund processes. We also interviewed officials from Treasury, the Congressional Budget Office (CBO), and DOT about how estimates are involved in these processes.

To compare Treasury's and CBO's estimates, we analyzed data for fiscal years 1998 through 2006 from both agencies; Treasury's estimates of receipts were published annually in the President's Budget (which also included outlay estimates from DOT), and CBO's estimates of receipts and outlays were prepared in that time frame each year. Specifically, for the Highway Trust Fund and the Highway Account within the fund, we examined the differences in receipt and outlay estimates, the percentage difference in the estimates, and the overall trends in the forecasts. We also reviewed information from both agencies on the overall factors and assumptions that are included in the models used to prepare estimates and interviewed officials from Treasury and CBO about the factors that were most likely responsible for any differences in their estimates. We did not collect detailed information on factors and assumptions used in the models because some of the information used in Treasury's model is based on economic assumptions developed by the administration that are not publicly available. Consequently, we were not able to evaluate the reliability of Treasury's or CBO's model for preparing Highway Trust Fund estimates.

To compare Treasury's and CBO's estimates to actual Highway Trust Fund receipts, we analyzed the annual estimates of receipts made by each agency in each year from fiscal year 1998 through fiscal year 2004 and compared them to actual Highway Trust Fund receipts, as published annually in the U.S. Budget Historical Statistics. The comparisons were made for 1- and 2-year estimates for the entire Highway Trust Fund, including both the Highway Account and the Mass Transit Account. The percentage differences in estimates and actual receipts were computed on the basis of the absolute value of the differences regardless of whether the values were negative or positive. The differences in dollar value represent Mean Absolute Error (MAE), which is the average value of the difference between estimated and actual receipts, regardless of whether the value is positive or negative. These accuracy measures are general and descriptive statistics, which were not tested for statistical significance because of the relatively small number of data available.

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