CBO TESTIMONY

Statement of
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CBO's Projections of Revenues for the Highway Trust Fund

before the
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Mr. Chairman and Members of the Subcommittee, I am pleased to be here today to discuss the status of the Highway Trust Fund and its highway account. My statement focuses on the methods that the Congressional Budget Office (CBO) uses to project the revenues that are deposited into the trust fund, the reliability of those projections, and the difference between CBO's projections and those of the Administration.

My testimony has six main conclusions:

- Revenues from the various fuel and truck taxes that are credited to the Highway Trust Fund will total $167 billion from fiscal year 2006 through fiscal year 2009, CBO projects. About $146 billion of those revenues will go into the trust fund's highway account. Outlays from the highway account would total $158 billion over 2006-2009 period if annual obligation limits were set at the levels authorized in 2005. As a result, balances in the highway account (currently about $11 billion) would decline over the next three years, leading to the exhaustion of account balances by the end of 2009.

- The Administration projects somewhat lower revenues for the Highway Trust Fund ($161 billion) and for the highway account ($140 billion) over that period—differences of about $6 billion and $5 billion, respectively. Its revenue projections, when combined with its outlay estimates, also imply that the highway account will incur a shortfall in 2009.

- CBO projects higher trust fund revenues than the Administration does mainly because CBO assumes greater increases in fuel usage in the future as the economy grows and smaller reductions in fuel usage as a result of recent price increases. In addition, CBO's projections start from a higher level, based on higher estimates of recent revenues, and use some different underlying economic assumptions. Those factors, however, play a much smaller role in causing CBO's revenue projections to exceed the Administration's.

- Projections of trust fund revenues are subject to significant uncertainty. Changes in oil prices, the economy, and the fuel efficiency of vehicles can all cause future revenues to differ from current projections. Experience suggests that CBO's and the Administration's projections are subject to similar uncertainties and are comparable in their reliability.

- The difference between CBO's and the Administration's current revenue projections is smaller than the range of past differences between projected and actual revenues. Thus, the difference between those projections is not an indicator of their respective reliability.

- The uncertainty associated with both revenue and outlay projections implies that the highway account could exhaust its resources either before or after 2009.

Overview of the Highway Trust Fund

The Highway Trust Fund is an accounting mechanism in the federal budget. It records specific cash inflows (revenues from certain excise taxes on motor fuels and trucks) and cash outflows (spending on designated highway and mass transit programs). The fund comprises two separate accounts, one for highways and one for mass transit. By far the largest component of the trust fund is the Federal-Aid Highway program (see Table 1).

Spending from the Highway Trust Fund is not automatically triggered by the collection of tax revenues. Authorization acts provide budget authority for highway programs, mostly in the form of contract authority (the authority to incur obligations in advance of appropriations). Annual spending from the Highway Trust Fund is largely controlled by limits on the amount of contract authority that can be obligated in a particular year. Such obligation limitations are customarily set in appropriation acts.

The most recent authorization law governing spending from the trust fund—the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—was enacted in 2005 and is due to expire at the end of 2009. SAFETEA-LU provides specific amounts of contract authority over the 2005-2009 period and authorizes appropriations for certain programs that are not funded through contract authority. It also specifies annual obligation limitations (which may be superseded each year by limitations set in annual appropriation acts).

In addition, the 2005 law includes a funding mechanism, known as revenue-aligned budget authority (RABA), that is designed to strengthen the relationship between the highway account's revenues and spending. Under RABA, the Administration estimates revenues for the highway account and compares its estimates with the revenue amounts anticipated in SAFETEA-LU and with the estimates made the previous year. On the basis of those comparisons, the Administration, as part of the President's annual budget request, is required to adjust contract authority for programs funded from the highway account. (If the current revenue estimates are higher than the revenue amounts anticipated in SAFETEA-LU, contract authority is increased. If the revenue estimates are lower than the anticipated amounts, contract authority is reduced, as long as highway account balances are less than $6 billion.) The obligation limitations set in appropriation acts, however, do not necessarily reflect RABA adjustments.

Balances of the Highway Trust Fund

The status of the Highway Trust Fund is generally assessed by projecting the balances in the fund, which indicate whether its expected revenues will be sufficient to cover its anticipated outlays. Those balances represent the cumulative difference between revenues and outlays over the life of the trust fund and indicate how

Table 1.

Major Components of the Highway Trust Fund, 2006

(Billions of dollars)

	Estimated Receipts[a]	Budget Authority and Obligation Limitations[b]	Estimated Outlays
Highway Account			
Federal-Aid Highway program	n.a.	36.3	33.7
Motor carrier safety	n.a.	0.5	0.5
Highway traffic safety	n.a.	0.8	0.6
Other	n.a.	0	0.2
Subtotal	34.9	37.6	34.9
Mass Transit Account			
Discretionary grants	n.a.	0.1	0.1
Trust fund share of transit programs[c]	n.a.	6.9	0.8
Subtotal	5.1	6.9	0.8
Total, Highway Trust Fund	**40.0**	**44.5**	**35.7**

Source: Congressional Budget Office.

Note: n.a. = not applicable.

Numbers may not add up to totals because of rounding.

a. Receipts are deposited in the highway and mass transit accounts but are not earmarked for specific components.

b. Obligation limitations enacted in appropriation acts limit the amount of budget authority available to most Highway Trust Fund programs. The amounts in this column are the sum of obligation limitations and budget authority that is not subject to any such limitation.

c. Includes only outlays from 2006 funds. Outlays from previous years' funding were recorded in those years as transfers to other budget accounts.

much the fund has available, at any particular time, to meet its current and future obligations.

In the case of the fund's highway account, most of the obligations involve capital projects, on which money is spent over a number of years. (In other words, some of the highway programs' existing obligations will be met using future tax revenues.) Therefore, existing obligations of programs paid from that account far exceed the amounts now in the account. At the end of 2005, the balance of the highway account stood at $11 billion, whereas the outstanding obligations of highway programs totaled almost $45 billion.

CBO has estimated the highway account's future balances by projecting revenues and outlays through 2009 (see Table 2). Revenues and outlays are estimated inde-

Table 2.

CBO's Estimate of Highway Account Balances, Assuming Funding at Levels Authorized in SAFETEA-LU

(Billions of dollars)

	2005	2006	2007	2008	2009	Total, 2006-2009
Federal-Aid Highway Program						
Obligation limitation	33.3	35.6	38.2	39.6	41.2	154.6
RABA adjustments to obligation limitation[a]	0	0	0.8	1.9	1.8	4.6
Discretionary budget authority[b]	1.9	0	0	0	0	0
Contract authority not subject to obligation limitations	0.7	0.7	0.7	0.7	0.7	3.0
Safety Programs (Obligation limitations)	0.9	1.3	1.2	1.2	1.3	5.0
Total Funds Available for Obligation[c]	**36.8**	**37.6**	**40.9**	**43.4**	**45.0**	**167.1**
Estimated Outlays	33.1	34.9	38.1	41.4	43.2	157.6
Estimated Receipts	33.3	34.9	35.9	36.9	37.9	145.7
Projected End-of-Year Balance	**11.0**	**11.0**	**8.8**	**4.4**	**-0.9**	**n.a.**
Change from Previous Year's Balance	n.a.	*	-2.2	-4.5	-5.3	-11.9

Source: Congressional Budget Office.

Notes: SAFETEA-LU = Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users; RABA = revenue-aligned budget authority; n.a. = not applicable; * = between zero and $50 million.

Numbers may not add up to totals because of rounding.

a. The 2007 figure for RABA adjustments comes from the President's 2007 budget. The figures for 2008 and later years are illustrative estimates by CBO. (The Administration is responsible for determining RABA adjustments.)

b. Includes funding provided by the Transportation, Treasury, Independent Agencies, and General Government Appropriations Act, 2005 (Public Law 108-447) and by the Military Construction Appropriations and Emergency Hurricane Supplemental Appropriations Act, 2005 (Public Law 108-324) to respond to hurricanes and meet other disaster-related needs.

c. CBO assumes that future appropriation acts will provide for SAFETEA-LU funding levels and any RABA adjustments.

pendently of each other because they have different bases—revenues depend on the collection of various taxes, and outlays depend largely on the obligation limitations set in appropriation acts. For those projections, CBO assumes that policymakers will continue to control spending through such limitations. Further, the projections assume that appropriation acts will set obligation limitations equal to the amounts specified in SAFETEA-LU raised or lowered by annual RABA

adjustments.[1] Under those assumptions, the amounts available for obligation from the highway account would rise from about $37 billion last year to $45 billion in 2009.

To estimate the flow of trust fund outlays that result from the obligation limitations, CBO looks at historical spending patterns. For example, the Federal-Aid Highway program typically spends about 27 percent of its budgetary resources in the year they are provided and the rest over the next several years. If the Congress chose to set obligation limitations at the amounts authorized in SAFETEA-LU and to include RABA adjustments to the limitations for 2007, 2008, and 2009, outlays from the trust fund's highway account would gradually increase from $33 billion in 2005 to about $43 billion in 2009, CBO estimates. Those outlays would exceed revenues by about $2 billion in 2007, $4.5 billion in 2008, and more than $5 billion in 2009. As a result, balances in the highway account would be exhausted by 2009, and the account would incur a shortfall of about $0.9 billion in that year, by CBO's estimate.

The Administration estimates that the highway account will have a shortfall of $2.3 billion at the end of 2009. That outcome is the result of cumulative revenues of $140 billion and cumulative spending of $153 billion over the 2006-2009 period. CBO's estimate of revenues over those four years is about $5 billion higher than the Administration's, but its estimate of spending over the same period is $4 billion higher (assuming that annual obligation limitations are set at the amounts authorized in SAFETEA-LU). The difference in projected outlays stems from two sources. First, CBO's higher estimate of revenues implies RABA adjustments that would provide about $2 billion more in budgetary resources for highways. Second, CBO expects a slightly faster pace of highway spending over the next four years than the Administration does.

CBO's Revenue Projections for the Highway Trust Fund

As a part of its annual baseline budget projections, CBO projects the amount of revenues generated by the taxes that are deposited into the Highway Trust Fund. Following the provisions of the Balanced Budget and Emergency Deficit Control Act of 1985, as amended, CBO's baseline revenue projections assume that current law remains the same, except that excise taxes dedicated to trust funds are assumed to be extended at current rates. Thus, the Highway Trust Fund taxes that

1. That assumption differs from the one underlying CBO's baseline budget projections, which are governed by the rules set forth in the Balanced Budget and Emergency Deficit Control Act. In its most recent baseline, CBO projected highway spending over the next decade by assuming that the budget authority and obligation limitations in each future year would equal those enacted in the 2006 appropriation act for the Department of Transportation (Public Law 109-115), adjusted for inflation. With that projection method, baseline funding levels for highways are lower than the levels specified in SAFETEA-LU.

Table 3.

Estimated Highway Trust Fund Revenues, 2005

Revenue Source	Billions of Dollars	Percentage of Total Trust Fund Revenues
Gasoline and Gasohol Tax	25.5	66.7
Diesel Tax	9.3	24.2
Retail Sales Tax on Trucks	2.8	7.4
Heavy-Vehicle Use Tax	1.2	3.1
Tax on Truck Tires	0.5	1.2
Refunds	-1.0	-2.6
Total	**38.2**	**100.0**

Source: Congressional Budget Office.

Note: Numbers may not add up to totals because of rounding.

are now scheduled to expire on September 30, 2011, are assumed to be permanently extended in CBO's baseline projections.

How CBO Projects Trust Fund Revenues

The largest source of revenues to the Highway Trust Fund is the tax of 18.3 cents per gallon on gasoline and gasohol. It currently produces about two-thirds of the fund's total revenues (see Table 3). The second-largest source is the levy of 24.3 cents per gallon on diesel and special motor fuels, which accounts for about one-quarter of revenues. Thus, taxes on motor fuels generate about 90 percent of the trust fund's total revenues. The rest of the revenues come from a 12 percent tax on the first retail sale of a truck or trailer above a certain weight, taxes on truck tires for highway use, and an annual use tax on heavy trucks. CBO projects all five of those revenue sources separately, along with refunds on amounts paid by certain taxpayers who are exempt from the taxes.

In addition, CBO projects the amount of revenue recorded separately in the highway account and the mass transit account of the Highway Trust Fund. Revenues from the taxes on gasoline and diesel fuel are credited to the full fund, and each of the accounts receives a share.[2] Revenues from the three different taxes on trucks are credited entirely to the highway account. Currently, more than 85 percent of highway revenues go to the highway account.

CBO's revenue projections cover not only the current year and next 10 years (its standard projection period) but also the previous year. The previous amounts are not yet known because, when taxpayers pay their total excise tax liabilities to the

2. About 84 percent of the gasoline and gasohol revenue and 88 percent of the diesel revenue is credited to the highway account.

Internal Revenue Service (IRS), they are not required to identify the specific taxes that their payments cover. Given the delays in reporting that information to IRS and the time that IRS needs to process the information, about six months elapse after the end of a quarter before data on payments of different types of excise taxes become available. Before those data are available, the Treasury Department estimates the amount of excise taxes that should be allocated to the various trust funds. It then adjusts those allocations later when the actual data become available.

The baseline projection of revenues that CBO prepares each December is thus based on only two quarters of actual data for the previous fiscal year. For example, when it prepared its most recent outlook for trust fund revenues, in December 2005, the latest data available to CBO were from January through March of 2005. CBO must forecast the breakdown of excise taxes for the remaining two quarters. In making that forecast, CBO relies on other economic data, various extrapolation methods, and the current projections for that year from its forecasting models.

Gasoline Tax. To estimate future revenues from gasoline and gasohol taxes, CBO projects the number of taxable gallons of those fuels that will be purchased and multiplies that amount by the tax rate specified in law. In CBO's model, growth in fuel purchases over time depends on real (inflation-adjusted) economic growth, changes in fuel prices relative to the prices of other goods, and changes in the fuel efficiency of the total fleet of gasoline-powered vehicles. Economic growth generates increases in fuel purchases and tax revenues, whereas growth in relative fuel prices and in fuel efficiency generates reductions in fuel purchases and revenues.[3]

CBO develops its own projections of the inputs into its model. Its economic projection includes measures of real economic activity and prices. In addition, CBO projects fuel efficiency by looking at past and expected changes in relative fuel prices.

Diesel Tax. CBO projects purchases of diesel fuel by looking at their historical relationship to real economic activity. Over a long period of time, the number of gallons of diesel fuel consumed has grown at a slightly faster rate than real gross domestic product (GDP), and CBO expects that relationship to continue over the next 10 years. In CBO's model, the recent rise in fuel prices does not cause a reduction in the use of diesel fuel, except to the degree that GDP is affected. Because there are limited alternatives to shipping freight by truck that do not also use diesel fuel, businesses generally must absorb higher fuel costs or pass them along to customers.

Truck Taxes. Growth in the other sources of trust fund revenues—the retail sales tax on trucks, the tire tax, and the highway use tax—is also projected on the basis

3. Fuel prices in CBO's model largely capture the effects on the number of miles driven, and fuel efficiency separately captures miles per gallon.

Table 4.

CBO's Current Projections of Highway Trust Fund Revenues, 2005 to 2016

Revenue Source	Billions of Dollars					Average Annual Percentage Change		
	2005	2006	2007	2008	2009	2006	2007-2009	2010-2016
Gasoline and Gasohol Tax	25.5	26.3	27.0	27.7	28.4	3.2	2.6	1.8
Diesel Tax	9.3	10.0	10.4	10.7	11.1	7.8	3.7	2.9
Retail Sales Tax on Trucks	2.8	3.1	3.1	3.2	3.3	8.5	2.4	1.7
Heavy-Vehicle Use Tax	1.2	1.2	1.2	1.3	1.3	2.6	2.3	1.6
Tax on Truck Tires	0.5	0.5	0.5	0.5	0.5	2.7	2.4	1.7
Refunds	-1.0	-1.0	-1.0	-1.1	-1.1	1.0	2.7	1.9
Total	**38.2**	**40.0**	**41.2**	**42.4**	**43.5**	**4.7**	**2.8**	**2.1**

Source: Congressional Budget Office.

Note: Numbers may not add up to totals because of rounding.

of historical relationships to real economic growth. Revenues from all of those taxes are projected to grow more slowly than real GDP, on average, as they have done in recent years.

CBO's Current Projection of Revenues for the Highway Trust Fund

The revenues credited to the Highway Trust Fund will rise over the coming decade, CBO projects, but the rate of growth will slow with time (see Table 4). Revenues are projected to increase by 4.7 percent this year—to $40 billion from about $38 billion last year—partly because of recent legislation that affects the tax treatment of kerosene and hence receipts from the tax on diesel. Over the next three years, trust fund revenues are projected to grow at an average annual rate of 2.8 percent, reaching $43.5 billion in 2009. Over the 2010-2016 period, the estimated growth rate slows to an average of 2.1 percent per year.

For the trust fund's highway account, CBO projects that revenues will be sufficient to keep it solvent through 2008 (if annual obligation limitations are set at the levels specified in SAFETEA-LU). In 2009, however, the highway account is projected to incur a small shortfall.

Gasoline Tax. Receipts from gasoline and gasohol taxes will grow more slowly than real GDP over the next 10 years, CBO projects—at average annual rates of 2.6 percent between 2007 and 2009 and 1.8 percent between 2010 and 2016. That projection is influenced heavily by CBO's outlook for oil markets and real economic growth.

Nominal oil prices will remain relatively stable through 2007, CBO projects, and thus will decline slightly relative to other prices, which are expected to rise. After

2007, oil prices are expected to increase at about the general rate of inflation. The inflation-adjusted price of gasoline has jumped markedly from its average level of 2003, but CBO does not project further increases over the 10-year projection period. The recent price rise is expected to generate steady increases in the fuel efficiency of the nation's fleet of gasoline-powered vehicles over the next decade.

In addition, the economy is expected to continue growing in real terms, though more strongly in the earlier years of the projection period than in the later years. CBO projects real economic growth of 3.6 percent this year, 3.4 percent in 2007, and an average of 3.3 percent in 2008 and 2009. After that, growth of real GDP is projected to slow to an annual average of 2.7 percent over the 2010- 2016 period, largely because an increasing portion of the baby-boom generation will be retiring.

Diesel and Truck Taxes. The projection of a slowdown in real economic growth means that revenues from the levy on diesel fuel and the other highway taxes are also expected to grow at decreasing rates over time. CBO projects that diesel fuel revenues will increase by 3.7 percent a year, on average, from 2007 to 2009 and by 2.9 percent a year, on average, from 2010 to 2016. Other sources of revenue for the Highway Trust Fund are projected to grow about 1 percentage point more slowly than diesel fuel revenues.

Differences Between CBO's and the Administration's Revenue Projections

CBO projects a total of $167 billion in revenues for the Highway Trust Fund over the 2006-2009 period. The Administration's projection, $161 billion, is about 4 percent smaller. CBO's projection of revenues for the highway account over that period also exceeds the Administration's estimate by about 4 percent, or $5 billion (see Table 5). More than half of that difference results from varying projections of gasoline and gasohol revenues, and less than half is from projections of diesel fuel revenues. Differences in projections of retail sales taxes on trucks offset a portion of the differences in estimates of gasoline and diesel tax revenues.

The Administration and CBO generally use similar techniques to project the revenues dedicated to the Highway Trust Fund, but their specific models differ in some ways. In examining the differences, it is useful to distinguish between economic factors and technical factors. CBO classifies differences as stemming from economic factors if they are caused by differences in underlying projections of total income and prices in the economy. CBO classifies all other differences as technical in nature; they typically reflect differences in models and varying interpretations of recent tax collections.

Technical differences, not economic ones, are the most significant factor explaining the differences in revenue projections. CBO and the Administration make different assumptions about the future fuel efficiency of the vehicle fleet, use somewhat different variables to forecast diesel fuel usage, and use different historical

Table 5.

Projections of Revenues for the Highway Account Over the 2006-2009 Period

(Billions of dollars)

Revenue Source	CBO	Administration	Difference (CBO minus Administration) Billions of Dollars	Difference (CBO minus Administration) Percent
Gasoline and Gasohol Tax	92.4	88.6	3.8	4.3
Diesel Tax	37.2	35.0	2.2	6.3
Retail Sales Tax on Trucks	12.7	13.6	-0.9	-6.3
Heavy-Vehicle Use Tax	5.0	4.7	0.2	4.6
Tax on Truck Tires	2.0	2.3	-0.3	-12.3
Refunds	-3.6	-3.9	0.3	-8.5
Total	**145.7**	**140.3**	**5.4**	**3.9**

Sources: Congressional Budget Office and Department of the Treasury.

Note: Numbers may not add up to totals because of rounding.

periods in their models. Despite the divergence, the key elements of those models are consistent with the range of results in the economics literature.

The Administration and CBO both project that use of gasoline and gasohol will change in response to changes in their prices and as the economy grows. Differences in that estimated responsiveness, however, cause the two projections of fuel usage to diverge. CBO projects that people will increase their gasoline use to a greater extent as national income rises than the Administration does. For its part, the Administration assumes more long-term responsiveness to changes in gasoline prices than CBO does. Thus, compared with the Administration, CBO's modeling puts more weight on the revenue-increasing effects of projected income growth and less weight on the revenue-decreasing effects of the recent rise in fuel prices.

In projecting use of diesel fuel, the Administration again assumes greater sensitivity to fuel prices and less sensitivity to economic growth than CBO does. As with gasoline, those differences cause the Administration's projection of diesel fuel revenues to be lower than CBO's. Unlike the Administration, CBO does not project that the use of diesel fuel is significantly responsive to changes in its price—at least not at the price levels currently expected. In addition, although both the Administration and CBO use measures of real income as a primary input in their models, CBO's model assumes more responsiveness to changes in income. To model those income effects, CBO uses real GDP as a measure, whereas the Administration currently uses real disposable income and industrial production.

Another technical factor—which explains about 5 percent to 10 percent of the total difference in revenues over the 2006-2009 period—involves differences in estimating 2005 revenues. The Administration attributed a smaller share of total excise tax receipts in the second half of the year to highway sources than CBO did. As a result, CBO's estimate of highway revenues in 2005 was higher than the Administration's. That difference in the "base" year of the forecast causes CBO's revenue projections to exceed the Administration's throughout the projection period. (Information now available suggests that revenues for 2005 were between CBO's and the Administration's estimates.)

Other technical differences arise in projecting revenues from retail sales taxes on trucks. In that case, CBO projects slightly lower revenues than the Administration does (by a total of about $0.9 billion over the 2006-2009 period). In projecting those tax revenues, the Administration uses its economic forecast of equipment investment as a key determinant, whereas CBO uses its forecast of real GDP.

Differences in economic assumptions play a relatively small role—explaining roughly 5 percent of the total difference in revenue projections over the 2006-2009 period, by CBO's estimate. The major economic factors that determine the amount of tax revenues dedicated to the Highway Trust Fund are the overall growth of the economy and fuel prices. Currently, CBO is forecasting stronger economic growth through 2009 than the Administration, which by itself would cause CBO's revenue projections to be higher than the Administration's. However, CBO is also forecasting higher fuel prices through 2009, which would cause its revenue projections to be lower than the Administration's. If CBO had used the Administration's economic assumptions, it would have projected slightly lower revenues, narrowing the gap between the two projections.

Uncertainties in CBO's Revenue Outlook

Both CBO's and the Administration's projections of highway revenues face a variety of uncertainties. The economy could grow faster or more slowly than expected. Oil prices could climb higher or fall substantially. Consumers might adjust more or less to changes in fuel prices (for example, by driving fewer miles in the short term or purchasing more-fuel-efficient vehicles in the longer term). All of those changes could affect revenues.

In addition to uncertainty about the future, there is also some uncertainty about the recent past. For example, analysts still do not know the extent to which consumers reduced their use of motor fuel in response to market disruptions last fall.

The Accuracy of CBO's Past Projections of Highway Trust Fund Revenues

CBO regularly assesses the performance of its models and has tabulated the differences between its projections of Highway Trust Fund revenues and actual revenues since 1991. To properly calculate the difference between its projections and

Table 6.

Average Difference Between CBO's Revenue Projections for the Highway Trust Fund Since 1991 and Actual Outcomes

(Percentage of actual revenues)

	Year for Which the Projection Was Made						
	Previous Year	Current Year	Budget Year	Budget Year +1	Budget Year +2	Budget Year +3	Budget Year +4
Average Difference	-0.2	1.4	*	0.1	0.3	-0.1	0.6
Average Absolute Difference	0.8	3.6	4.5	6.3	6.6	6.3	5.7

Source: Congressional Budget Office.

Notes: The comparison covers the projections made each winter since 1991. Differences are CBO's estimate of actual values minus the projected values. In calculating those differences, CBO adjusted its projections for the estimated effects of any new legislation that was enacted after a projection was made.

A positive average difference indicates that CBO underestimated the amount of revenues. Unlike the average difference, the average absolute difference indicates the distance between the actual and projected values without regard to whether the projections are overestimates or underestimates.

The current year is the fiscal year in which the projections are made; the budget year is the following year.

* = between -0.05 percent and zero.

actual outcomes, CBO adjusted the previous projections for the estimated effects of any new legislation that was subsequently enacted. Because of a lack of available data, the analysis could be done only for the entire trust fund, not the highway account. However, the differences should be about the same, in percentage terms, in both cases because the tax bases for the two accounts (highway and mass transit) are largely the same.

Highway revenues tended to exceed the projections that CBO made through much of the 1990s because of unexpectedly strong economic growth and a rapid increase in purchases of sport utility vehicles (SUVs), which have below-average fuel efficiency. Conversely, projections made in the years just before 2002 generally turned out to be too high. The 2001 recession and the effects of the September 11 terrorist attacks caused trust fund revenues in 2001 to fall well below CBO's expectations.

The projections made since 2001 for years through 2005 have been more accurate than the average. Whether that change reflects improvements in forecasting techniques or less volatility in the revenue sources—and hence more predictability—is difficult to determine.

In absolute terms (ignoring whether a difference is an overestimate or an underestimate), the average deviation between projected and actual revenues since 1991 is increasingly large for the first three years of a projection and then declines slightly for the fourth and fifth years. For the year just completed, the average absolute deviation is relatively small—typically, less than 1 percent of actual revenues (see Table 6). That average difference rises to about 3.6 percent for the year in which the forecast is made (the "current year"), to 4.5 percent for the year after the current year (typically referred to as the "budget year"), and to 6.6 percent for the third year out (corresponding to 2009 in CBO's latest forecast). A deviation of 6.6 percent from CBO's current projection of revenues for 2009, $43.5 billion, would correspond to almost $3 billion. Deviations beyond the three-year horizon have tended to be slightly smaller, declining to 5.7 percent, in absolute average terms, for projections made five years ahead.

By CBO's calculation, the Administration's revenue projections for the Highway Trust Fund tend to show a similar pattern of differences from actual outcomes. Forecasts done in the early to mid-1990s underestimated revenues; those made from early 1999 through early 2001 overestimated revenues for 2001 and later years; and forecasts produced between those two periods were generally more accurate, on average. One projection by the Administration was significantly more accurate than CBO's: the Administration's February 2000 forecast, which was lower than CBO's, had about two-thirds of the difference from actual outcomes of CBO's estimate. With that projection included, the Administration's track record has been slightly better than CBO's. Looking at the record without that forecast and the one in which CBO performed best relative to the Administration, the overall accuracy of the two sets of projections is indistinguishable. The differences in accuracy are small and do not indicate that either organization's methods have been superior or statistically more reliable. The performance of the two modeling approaches has been roughly comparable.

Possible Outcomes Based on CBO's Past Forecasting Experience

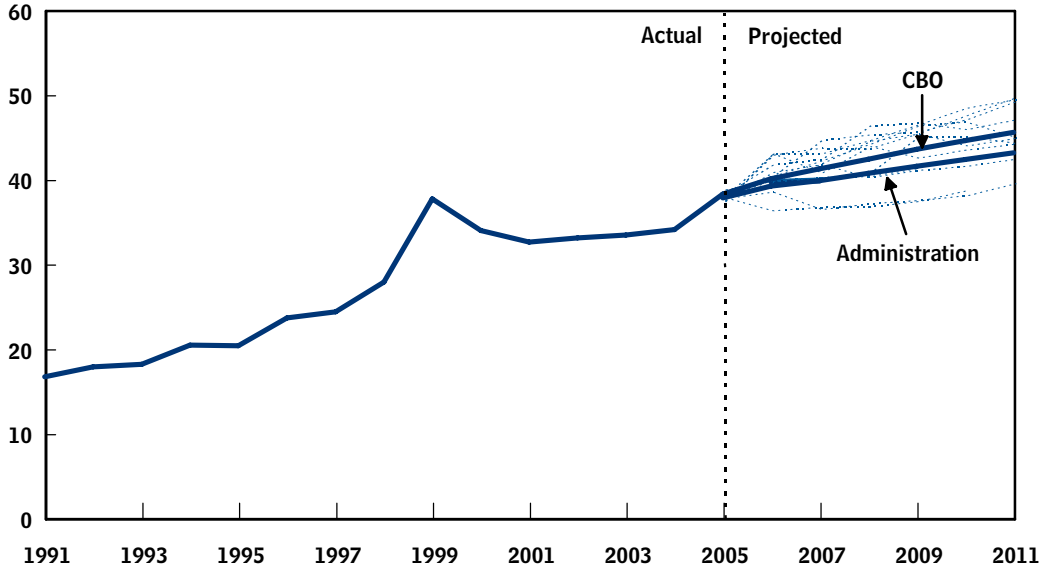
Past differences between projections and actual Highway Trust Fund revenues suggest that future projections have significant uncertainty. In fact, the range of historical uncertainty is much larger than the difference between the current forecasts by CBO and the Administration.

One way to illustrate that uncertainty is to simulate the effect that past deviations from actual outcomes would have on current projections. Using 2005 as a starting point, CBO applied the deviations from each of its past 15 projections to simulate alternative projections (see Figure 1). The alternative paths are not intended to suggest confidence bands around CBO's current forecast; rather, they illustrate what revenues would look like in the future if CBO's past forecasting errors recurred.

Figure 1.

Current Estimates of Highway Trust Fund Revenues Compared with Alternative Estimates Based on Differences Between CBO's Past Projections and Actual Outcomes

(Billions of dollars)



Source: Congressional Budget Office.

Note: The dotted lines represent illustrative alternative projections of revenues for the Highway Trust Fund. CBO constructed them by applying to its current projection the differences between its past projections and actual outcomes.

History may not be a good indicator of the future for such revenue projections, of course. In particular, wide fluctuations in fuel prices may lie outside the range of experience and introduce more uncertainty. Certain unexpected developments in the past, such as the shift to SUVs in the 1990s, may or may not recur.

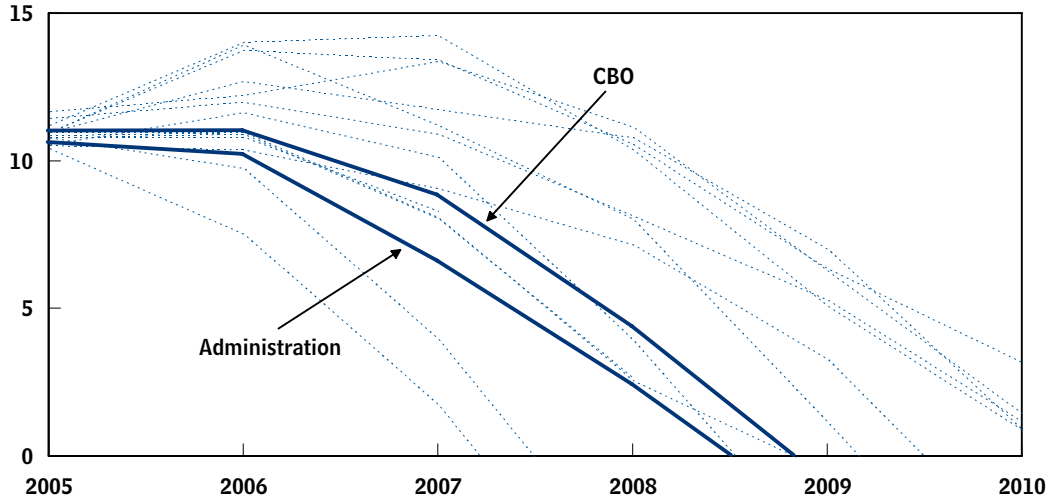
The distribution of illustrative outcomes indicates that the Administration's projection of revenues for the Highway Trust Fund is well within CBO's range of outcomes. The uncertainty of the revenue outlook encompasses very different forecasts.

For the trust fund's highway account, CBO projects that revenues will be sufficient to keep it solvent through 2008 (if annual obligation limitations are set at the levels specified in SAFETEA-LU). In 2009, however, the highway account is projected to incur a small shortfall. The Administration, by comparison, projects that the account will also have balances at the end of 2008 but a greater shortfall at the end of 2009 than CBO projects.

Figure 2.

Current Estimates of Highway Account Balances Compared with Potential Balances Based on Differences Between CBO's Past Estimates and Actual Outcomes for Revenues

(Billions of dollars)



Source: Congressional Budget Office.

Note: The dotted lines represent illustrative alternative projections of the balance in the highway account. CBO constructed them by applying to its current projection the differences between its past projections and actual outcomes. Data are for balances at the end of the year.

Simulations based on historical differences between CBO's projections and actual outcomes suggest significant uncertainty about when balances in the account will be exhausted, from 2008 to beyond 2010 (see Figure 2). If actual revenues fall short of projections to the extent that occurred with CBO's forecasts produced in and just before 2001, then the highway account may run out of funds as early as 2008. (That assumes, for example, that the percentage differences between the January 2001 forecast and actual outcomes for the 2001-2004 period occur for the current forecast for the 2006-2009 period.) However, if revenues exceed current projections by amounts consistent with the deviations from CBO's forecasts for the 1990s, the highway account may be in surplus for some period beyond 2009. (Some uncertainty in the outlay projections also exists, even if revenues are projected perfectly. Uncertainty about outlays is not incorporated into those simulations except to reflect RABA adjustments in response to alternative revenue paths.)

Both of those statistical exercises illustrate that a difference in the projections of CBO and the Administration is not an indicator of their reliability or of the likelihood of trust fund exhaustion. Revenue projections are subject to a great deal of uncertainty. Even if CBO and the Administration produced identical projections,

there would still be a chance that revenues would be significantly lower or higher than projected and that the highway account would exhaust its resources either before or after 2009.