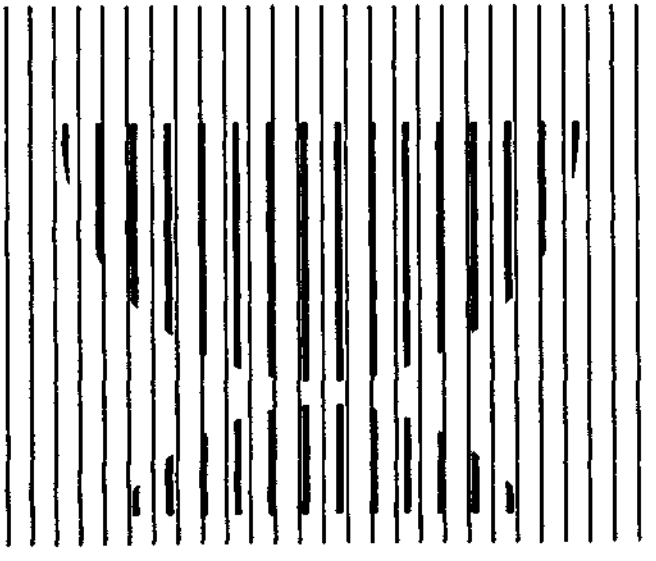
CBO STAFF MEMORANDUM

THE EFFECTS OF ALTERNATIVE ASSUMPTIONS ABOUT SPENDING AND REVENUES OF THE AIRPORT AND AIRWAY TRUST FUND

JULY 1990



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This staff memorandum was prepared in response to a request from Representative J. J. Pickle, Chairman of the Subcommittee on Oversight, Committee on Ways and Means, U.S. House of Representatives, to update information contained in the CBO special study *The Status of the Airport and Airway Trust Fund* (December 1988).

The memorandum was prepared by Elizabeth Pinkston of the Natural Resources and Commerce Division and Mitchell Rosenfeld of the Budget Analysis Division. Mark Dayton contributed to early drafts of the memorandum.

Highlights. The responses below make several key points about the relationship between aviation spending and the Airport and Airway Trust Fund:

- The uncommitted balance in the Airport and Airway Trust Fund at the end of fiscal year 1989 was $6.9 billion. If a rate reduction on taxes that generate revenues for the trust fund is triggered, the uncommitted balance is projected to drop to $2.3 billion by the end of fiscal year 1995. Without the tax rate reduction, the uncommitted balance would rise to $15.0 billion. (See Tables 1 and 2.)

- The balances in the Airport and Airway Trust Fund have accumulated because tax revenues and interest have exceeded Federal Aviation Administration (FAA) spending from the trust fund for capital and operations.

- In fiscal year 1989, aviation tax revenues covered about 57 percent of FAA spending authority. About 85 percent of the FAA's costs are attributable to private users of the airport and airway system; based on this cost allocation, user tax revenues covered about 67 percent of their share of FAA costs. The share of FAA spending for the benefit of private sector users that is covered by tax revenues is projected to decline to 41 percent in fiscal year 1995 if a tax rate reduction is triggered. If the tax rates are not reduced, the share is projected to rise to 76 percent in fiscal year 1995. (See Table 8.)

Technical issues and assumptions concerning baseline projections under the Balanced Budget and Emergency Deficit Control Act. The Balanced Budget and Emergency Deficit Control Act of 1985 (popularly know as Gramm-Rudman-Hollings, or G-R-H) sets forth certain requirements CBO must follow in making baseline projections. In general, CBO must assume extension of current law. Thus, while the taxes supporting the Airport and Airway Trust Fund are authorized only through December 31, 1990, and all of the spending programs from the trust fund expire by the end of fiscal year 1992, CBO baseline projections are constructed assuming extension of these programs.

There is one complicating factor, however. While G-R-H assumes extension of transportation trust fund excise taxes at current rates if they expire during the projection period, it also requires that the effects of changes arising from current law be included in the projections. A provision of law known as the "trigger mechanism" requires a 50-percent rate reduction on most aviation excise taxes if a specified spending target for the airport and airway improvement programs is not reached. On the basis of enacted appropriations to date and of actual and estimated obligations, CBO estimates that a tax rate reduction will be triggered on January 1, 1991. Accordingly, CBO baseline projections of tax revenues assume reductions in tax rates for the domestic passenger ticket tax, the waybill tax, and the general aviation fuel taxes on January 1, 1991. (The international departure tax rate will remain at $6 per departure.) Some of the following tables show an alternative revenue stream, assuming no tax rate reductions.

On the spending side, the CBO baseline estimates for FY 1991 through FY 1995 are constructed by inflating FY 1990 spending authority (maintaining real spending authority from the current year through the end of the projection period), and estimating the outlays that would result.

The baseline used below is the February 1990 CBO baseline. All years are fiscal years unless otherwise indicated.

1. What will be the unexpended balance and the uncommitted balance in the Airport and Airway Trust Fund from FY 1990 through FY 1995, assuming spending under CBO's baseline, and either taxes are extended at current rates or taxes are reduced by the trigger?

Table 1 shows the projected trust fund balances under baseline assumptions of revenue and spending. The uncommitted balance in the trust fund is projected to decline significantly by 1995, to less than $2.4 billion, from nearly $7.6 billion at the end of 1990.

TABLE 1. BASELINE PROJECTIONS OF THE AIRPORT AND AIRWAY TRUST FUND
(By fiscal year, in millions of dollars)

	Actual 1989	1990	1991	1992	1993	1994	1995
Unexpended Balance, End of Year	12,938	14,521	14,988	14,537	13,911	13,189	12,445
Commitments Against Unexpended Balance	6,068	6,964	7,786	8,430	9,001	9,544	10,103
Uncommitted Balance, End of Year	6,870	7,557	7,202	6,107	4,910	3,645	2,342

Table 2 displays the trust fund balances assuming baseline spending but using the alternative assumption of no tax rate reductions. The uncommitted balance is projected to be $15 billion in 1995, roughly double its 1990 level. The unexpended balance grows to more than $25 billion. These increases in balances reflect both higher tax revenues and higher interest income earned on the larger unexpended balances, as compared with CBO baseline projections.

TABLE 2. PROJECTIONS OF THE AIRPORT AND AIRWAY TRUST FUND WITH NO TAX RATE REDUCTIONS (By fiscal year, in millions of dollars)

	Actual 1989	1990	1991	1992	1993	1994	1995
Unexpended Balance, End of Year	12,938	14,521	16,225	18,052	20,048	22,359	25,121
Commitments Against Unexpended Balance	6,068	6,964	7,786	8,430	9,001	9,544	10,103
Uncommitted Balance, End of Year	6,870	7,557	8,439	9,622	11,047	12,815	15,018

2. What is CBO's baseline for total trust fund receipts from 1990 through 1995? Please provide separate data indicating the tax revenue, with a rate reduction and without a rate reduction, and the amount of interest that will be deposited in the trust fund?

The baseline projections of trust fund receipts are shown in Table 3, and the alternative projections based on extension of taxes at current rates are shown in Table 4. Under baseline assumptions, total tax revenue from 1991 through 1995 is projected to be $14.0 billion; under the alternative assumption of extending taxes at current rates, the total tax revenue for the same period is projected to be $24.5 billion, a difference of $10.5 billion. The total interest earnings are projected at $5.8 billion under baseline assumptions and $7.9 billion under the alternative assumptions. The result is a reduction of $12.7 billion in total receipts to the trust fund because of the assumed tax rate reduction beginning in 1991.

The passenger ticket tax will continue to provide the bulk of tax revenue to the trust fund, accounting for 82 percent of total tax revenues over the 1991 to 1995 period under baseline assumptions and 87 percent under extension of taxes at full rates. The international departure tax, which was increased from $3 to $6 on January 1, 1990, and is not subject to the tax rate reduction, will become the second largest revenue source for the trust fund in 1990 and will produce more than twice the revenue of the waybill and the fuel taxes combined by 1995, under CBO baseline projections.

TABLE 3. CBO BASELINE PROJECTIONS OF TRUST FUND RECEIPTS (By fiscal year, in millions of dollars)

	Actual 1989	1990	1991	1992	1993	1994	1995
Passenger Ticket Tax	3,201	3,318	2,527	1,973	2,117	2,307	2,534
Waybill Tax	181	190	138	105	110	116	122
Fuel Taxes	629	99	67	54	55	57	59
International Departure Tax	106	223	291	309	325	345	366
Refunds	-452	-6	-4	-3	-3	-3	-3
Total, Annual Tax Revenue	3,664	3,824	3,019	2,438	2,604	2,822	3,078
Interest on Investments	1,009	1,242	1,287	1,247	1,173	1,091	1,009
Total Receipts	4,673	5,066	4,306	3,685	3,777	3,913	4,087

TABLE 4. PROJECTIONS OF TRUST FUND RECEIPTS WITH NO TAX RATE REDUCTIONS (By fiscal year, in millions of dollars)

	Actual 1989	1990	1991	1992	1993	1994	1995
Passenger Ticket Tax	3,201	3,318	3,615	3,895	4,179	4,554	5,002
Waybill Tax	181	190	199	209	220	231	243
Fuel Taxes	629	99	103	108	110	115	119
International Departure Tax	106	223	291	309	325	345	366
Refunds	-452	-6	-6	-6	-6	-6	-6
Total, Annual Tax Revenue	3,664	3,824	4,202	4,515	4,828	5,239	5,724
Interest on Investments	1,009	1,242	1,341	1,448	1,572	1,707	1,870
Total Receipts	4,673	5,066	5,543	5,963	6,400	6,946	7,594

3. What trust fund outlays are provided for under CBO baseline projections for each Airport and Airway Trust Fund program, including FAA operations, Grants in Aid for Airports, Facilities and Equipment, Research, Engineering and Development, and the aviation weather services of the National Oceanic and Atmospheric Administration, from FY 1990 through FY 1995?

   We presume CBO's projections of spending follows the Gramm-Rudman rules which assume spending levels increase at the projected rate of inflation, is that correct? Please provide alternative projections of trust fund and general fund spending based upon FAA projections of program funding requirements over the next 5 years. Further, please provide alternative projections, including those addressing expanded airport capacity with a discussion of noise and land constraints.

Outlays for the programs financed by the Airport and Airway Trust Fund as projected in the CBO baseline are presented in the first section of Table 5. The account labeled National Oceanic and Atmospheric Administration (NOAA) includes only the aviation weather services program. Under CBO baseline projections, total trust fund outlays would rise from $3.5 billion in 1990 to $4.8 billion in 1995.

The CBO baseline estimates for 1991 through 1995 are constructed by inflating current year (fiscal year 1990) spending authority for each program (to maintain real spending authority from the current year through the end of the projection period), and estimating the outlays that would result. This procedure is the methodology prescribed by the Balanced Budget Act and is not intended to be an estimate of programmatic needs. As a result, increases in the facilities and equipment account that may be needed in the next five years to finance the procurement phase of many National Airspace System (NAS) Plan programs are not reflected in these projections.

TABLE 5. PROJECTIONS OF TRUST FUND OUTLAYS (By fiscal year, in millions of dollars)

	Actual 1989	1990	1991	1992	1993	1994	1995
CBO BASELINE PROJECTIONS							
Federal Aviation Administration							
Airport grants-in-aid	1,135	1,286	1,386	1,445	1,511	1,573	1,634
Facilities and equipment	1,088	1,191	1,386	1,579	1,732	1,851	1,934
Research, engineering, and development	128	170	176	182	189	197	205
Trust fund share of FAA operations	477	807	861	898	938	979	1,022
National Oceanic and Atmospheric Administration	29	30	31	32	33	35	36
Total, Baseline Outlays	2,856	3,483	3,839	4,136	4,404	4,635	4,831
PROJECTIONS WITH INCREASED FACILITIES AND EQUIPMENT SPENDING							
Facilities and equipment	1,088	1,191	1,470	1,892	2,320	2,600	2,702
Total outlays, with increases in facilities and equipment	2,856	3,483	3,924	4,449	4,992	5,383	5,599
PROJECTIONS WITH INCREASED AIRPORT GRANTS-IN-AID SPENDING							
Airport grants-in-aid	1,135	1,286	1,629	2,012	2,708	2,872	2,952
Total outlays, with increases in airport grants-in-aid	2,856	3,483	4,082	4,703	5,601	5,934	6,149
PROJECTIONS WITH INCREASED FACILITIES AND EQUIPMENT AND INCREASED AIRPORT GRANTS-IN-AID SPENDING							
Facilities and equipment	1,088	1,191	1,470	1,892	2,320	2,600	2,702
Airport grants-in-aid	1,135	1,286	1,629	2,012	2,708	2,872	2,952
Total outlays, with increases in both facilities and equipment and airport grants-in-aid	2,856	3,483	4,167	5,017	6,189	6,683	6,917

The second section of Table 5 shows projected outlays for facilities and equipment based on the budget authority requested in the President's 1991 budget and estimated using CBO's technical assumptions. The budget authority request is $3.8 billion higher, and the resulting outlays $2.5 billion higher, than baseline projections over the 1991-1995 period.

Current levels of congestion in the aviation system have led some to call for a greatly increased level of federal support for airport expansion. The baseline projections do not incorporate such an expansion of the airport grant program; projections of an alternative airport grants-in-aid program level are shown in the third section of Table 5. The alternative projections are made assuming a doubling of the Administration's requested obligation limit for airport grants-in-aid in 1991 from $1.5 billion to $3 billion and maintenance of this higher level through 1995. (It is also assumed that contract authority, or budget authority, would be $3 billion annually from 1991 to 1995.) Total outlays over the 1991-1995 period would be $4.6 billion higher than under CBO baseline assumptions.

These assumptions are made for illustrative purposes and do not reflect an assessment by CBO as to the level of funding that might be needed or desirable. As your question suggests, there are numerous constraints in addition to budgetary concerns on the ability of airports to expand rapidly to meet the growing demands of air passengers and to avoid further increases in congestion. Restrictions on airport expansion from noise limits, land constraints, and community opposition to increased flights may present binding constraints on expansion at many congested airports. In some cases, there are alternatives to spending for reducing congestion, such as peak-period pricing of airport capacity or administrative agreements to spread peak-period demands.

4. Please provide a breakdown of the amount derived from the Trust Fund and the amount derived from the general fund for each program. Please provide a list of other Federally supported programs, and the costs associated with these programs, which also serve the aviation community, e.g. Department of Transportation programs (Office of Aviation Information Management, Payments to Air Carriers), National Transportation Safety Board, and NASA Aeronautical Research and Development.

Baseline projections of trust fund and general fund spending on aviation programs are provided in Table 6. The trust fund portion is the same as that shown in Table 5. The general fund portion goes primarily for FAA operations expenditures, which account for about 75 percent of aviation spending from the general fund. Aviation spending by the National Aeronautics and Space Administration (NASA) accounts for another 20 percent.

Table 6 also shows aviation outlays by components of the Department of Transportation other than the FAA, including payments to air carriers, made by the Office of the Secretary of Transportation (OST) to support air service to small communities, and spending by the Office of Aviation Information Management within DOT's Research and Special Programs Administration. The Office of the Secretary also provides oversight and policy guidance and analysis for aviation activities, but it is difficult to allocate the costs of these activities between aviation and other transportation modes. Allocable aviation-related spending by non-FAA components of DOT amounts to less than 1 percent of general fund outlays on aviation.

Table 6 also shows aviation spending projections for the National Transportation Safety Board (NTSB). These projections reflect the NTSB estimate that about 64 percent of its budget is allocable to aviation activities.

General fund spending for aviation exceeds trust fund spending in every year of the projection period. The share of total spending that is projected to come from the trust fund each year slowly increases; but still, by 1995, less than half of federal aviation spending would be financed out of the trust fund under CBO baseline projections.

TABLE 6. BASELINE PROJECTIONS OF FEDERAL AVIATION SPENDING
(By fiscal year, in millions of dollars)

	Actual 1989	1990	1991	1992	1993	1994	1995
Trust Fund							
Federal Aviation Administration							
Airport grants-in-aid	1,135	1,286	1,386	1,445	1,511	1,573	1,634
Facilities and equipment	1,088	1,191	1,386	1,579	1,732	1,851	1,934
Research, engineering, and development	128	170	176	182	189	197	205
Trust fund share of FAA operations	477	807	861	898	938	979	1,022
National Oceanic and Atmospheric Administration	29	30	31	32	33	35	36
Total, Annual Outlays	2,856	3,483	3,839	4,136	4,404	4,635	4,831
General Fund							
Federal Aviation Administration							
FAA operations	2,914	2,971	3,186	3,336	3,483	3,636	3,796
Other a/	-2	-1	-3	-3	b/	b/	b/
Other Department of Transportation							
Payments to air carriers	27	31	32	33	34	36	37
Office of aviation information management	1	1	1	1	1	1	1
National Aeronautics and Space Administration							
Research and program management	311	385	410	429	448	467	488
Construction of facilities	18	53	54	60	65	68	71
Research and development	458	472	481	520	528	549	571
National Transportation Safety Board							
Aviation share	16	17	19	19	20	21	22
Total, General Fund Outlays For Aviation	3,743	3,928	4,181	4,397	4,581	4,780	4,988
Total Aviation Spending	6,599	7,411	8,020	8,533	8,985	9,415	9,819

a/ Includes Aviation Insurance Revolving Fund, Aircraft Purchase Loan Guarantee Program, and miscellaneous expired accounts.

b/ Less than $500 thousand.

5. Please discuss the appropriate share, from an economic standpoint, of aviation program spending that should be borne by the general taxpayer as opposed to the aviation user, and the impact of the tax rate reduction trigger on these shares. By how much would total aviation-related excise tax revenue need to increase to allow for aviation users to fully support their appropriate share of projected spending under the CBO baseline and alternative projections?

Economic efficiency generally requires that users of a good or service pay the marginal cost of its use, that is, the additional cost associated with the consumption of one additional unit. It is exceedingly difficult, however, to estimate the marginal costs of aviation system users. Until ongoing research efforts produce workable solutions to the problem of setting efficient prices for aviation services, we can use the total costs associated with each class of user as a rough indication of that class's "appropriate" share.

The aviation system is used by the federal government, in operating both military and civilian aircraft, and by the private sector. Within the private sector, there are several subclasses of users--commercial passenger and cargo service and general aviation (aircraft operated for private business or recreation). Our discussion addresses only the broad split between federal and private use, since the main question is about the appropriate share for general taxpayers to bear.

The Federal Aviation Administration has made estimates of the share of its expenditures for the airport and airway systems that are attributable to the various users of these systems. In doing so, the FAA has made alternative assumptions about whether to attribute regulatory and related costs to system users or to general taxpayers and about how to allocate fixed or common costs among the various users. Depending on the assumptions made, the FAA has estimated the "federal share" of its costs--that is, the share attributable to the use of the system by military and civilian aircraft operated by the federal government--to range between 11 and 17 percent, with 15 percent the most commonly chosen value. Accordingly, the discussion below uses a 15-percent share for federal users and an 85-percent share for private users.

Aviation excise taxes at their current rates do not produce enough revenue to cover the 85-percent share of system costs attributable to the private sector. Therefore, the effect of the automatic tax reduction "trigger" would be to move further away from a system where users pay their share of total costs. In other words, the effect of the automatic rate reduction would be to increase substantially the subsidy of private sector users by general taxpayers.

Table 7 shows the increases in excise tax revenues that would be necessary to raise private users' contributions to 85 percent of system spending. The estimates are shown under different spending scenarios. The first section shows projections under baseline assumptions. The second section shows projections assuming the higher levels of spending authority for facilities and equipment that are consistent with the

higher levels of outlays shown in Table 5. Similarly, the third section shows projections assuming higher levels of spending authority for airport grants-in-aid, consistent with the outlays shown in Table 5. Finally, the fourth section shows the combined effects of higher spending on both facilities and equipment and airport grants-in-aid.

The private sector share is compared to baseline tax revenue projections (with the tax rate reduction) and to alternative revenue projections (without the tax rate reduction) to show by how much tax revenue would have to increase in order for private sector users to pay the 85-percent share of system costs attributed to them.

Under baseline spending projections, tax revenue would have to increase in 1990 by nearly 60 percent for private sector users to pay their 85-percent share of system costs. With the tax rate reduction, the gap between tax revenue and the private sector share of FAA spending would grow to nearly twice the projected revenue in 1992 and to one and one-half times the revenue in 1995. Without the tax rate reduction, the gap between revenue and spending would narrow, but private sector users of the aviation system still would be subsidized by general taxpayers. Excise tax revenues would have to rise by more than 40 percent over the 1991-1995 period to reach an 85-percent share of spending.

If the higher spending levels for both facilities and equipment and airport grants-in-aid shown in the last section of Table 5 are combined with baseline tax revenue (i.e., with the tax rate reduction), the gap between revenue and the private sector share of costs rises to nearly three times the projected tax revenue in 1992 and remains nearly twice the revenue in 1995.

TABLE 7. CBO BASELINE AND ALTERNATIVE PROJECTIONS OF FAA SPENDING AUTHORITY AND PRIVATE SECTOR FUNDING SHARES, WITH AND WITHOUT THE TAX RATE REDUCTIONS (By fiscal year, in millions of dollars)

	Actual 1989	1990	1991	1992	1993	1994	1995
PROJECTIONS ASSUMING BASELINE SPENDING AUTHORITY							
Total FAA Spending Authority	6,391	7,140	7,529	7,847	8,178	8,524	8,884
Target Private Sector Share (85%)	5,432	6,069	6,400	6,670	6,952	7,245	7,551
Baseline Revenue Projections							
Tax Revenue	3,664	3,824	3,019	2,438	2,604	2,822	3,078
Required Increase in Tax Revenue for Full Funding	1,768	2,245	3,381	4,232	4,348	4,423	4,473
Percentage Increase in Tax Revenue	48	59	112	174	167	157	145
Projections Assuming No Tax Rate Reduction							
Tax Revenue	3,664	3,824	4,202	4,515	4,828	5,239	5,724
Required Increase in Tax Revenue for Full Funding	1,768	2,245	2,198	2,155	2,124	2,006	1,827
Percentage Increase in Tax Revenue	48	59	52	48	44	38	32
PROJECTIONS ASSUMING INCREASED SPENDING ON FACILITIES AND EQUIPMENT							
Total FAA Spending Authority	6,391	7,140	8,237	8,983	9,239	9,007	9,286
Target Private Sector Share (85%)	5,432	6,069	7,001	7,636	7,853	7,656	7,893
Baseline Revenue Projections							
Tax Revenue	3,664	3,824	3,019	2,438	2,604	2,822	3,078
Required Increase in Tax Revenue for Full Funding	1,768	2,245	3,982	5,198	5,249	4,834	4,815
Percentage Increase in Tax Revenue	48	59	132	213	202	171	156
Projections Assuming No Tax Rate Reduction							
Tax Revenue	3,664	3,824	4,202	4,515	4,828	5,239	5,724
Required Increase in Tax Revenue for Full Funding	1,768	2,245	2,799	3,121	3,025	2,417	2,169
Percentage Increase in Tax Revenue	48	59	67	69	63	46	38

(Continued)

TABLE 7. (CONTINUED)

	Actual 1989	1990	1991	1992	1993	1994	1995
PROJECTIONS ASSUMING INCREASED SPENDING ON AIRPORT GRANTS-IN-AID							
Total FAA Spending Authority	6,391	7,140	9,047	9,306	9,575	9,857	10,150
Target Private Sector Share (85%)	5,432	6,069	7,690	7,910	8,139	8,378	8,627
Baseline Revenue Projections							
Tax Revenue	3,664	3,824	3,019	2,438	2,604	2,822	3,078
Required Increase in Tax Revenue for Full Funding	1,768	2,245	4,671	5,472	5,535	5,556	5,549
Percentage Increase in Tax Revenue	48	59	155	225	213	197	180
Projections Assuming No Tax Rate Reduction							
Tax Revenue	3,664	3,824	4,202	4,515	4,828	5,239	5,724
Required Increase in Tax Revenue for Full Funding	1,768	2,245	3,488	3,395	3,311	3,139	2,904
Percentage Increase in Tax Revenue	48	59	83	75	69	60	51
PROJECTIONS ASSUMING INCREASED SPENDING ON FACILITIES AND EQUIPMENT AND ON AIRPORT GRANTS-IN-AID							
Total FAA Spending Authority	6,391	7,140	9,755	10,441	10,636	10,340	10,551
Target Private Sector Share (85%)	5,432	6,069	8,292	8,875	9,041	8,789	8,969
Baseline Revenue Projections							
Tax Revenue	3,664	3,824	3,019	2,438	2,604	2,822	3,078
Required Increase in Tax Revenue for Full Funding	1,768	2,245	5,273	6,437	6,437	5,967	5,891
Percentage Increase in Tax Revenue	48	59	175	264	247	211	191
Projections for No Tax Rate Reduction							
Tax Revenue	3,664	3,824	4,202	4,515	4,828	5,239	5,724
Required Increase in Tax Revenue for Full Funding	1,768	2,245	4,090	4,360	4,213	3,550	3,245
Percentage Increase in Tax Revenues	48	59	97	97	87	68	57

Note: The FAA spending authority lines include obligation limitations, and not budget authority, for airport grants-in-aid.

6. Please discuss the impact of the penalty and cap provisions on user support of the total FAA budget and the cost of FAA operations. With tax revenues from the current tax rates or the rates reduced by the trigger and spending under CBO's baseline, what percentage of FAA spending will be financed by aviation users if the operation and maintenance penalty and cap continue? What would have been the uncommitted balance of the trust fund, at the end of FY 1989, if the penalty provision had not been enacted? What percentage of the FAA budget would have been supported by aviation users but for the penalty provision?

The cap on annual operations appropriations (for fiscal years 1988-1990) from the trust fund is set at 50 percent of the total amounts made available in each year for airport grants-in-aid, facilities and equipment, and research, engineering, and development. The penalty provision (for fiscal years 1988-1990) reduces this annual limit by twice the amount by which the funds made available for these three programs fall short of certain specified levels. While the cap and penalty provisions affect the amount of FAA operations spending attributed to the trust fund, they affect neither the total amount of FAA operations spending nor the amount of tax revenues flowing into the trust fund. Their only effects are of an accounting nature: they cause spending to be made from the general fund rather than the trust fund and thus contribute to the growth of unexpended and uncommitted balances in the trust fund. The cap and penalty provisions have no effect on user support of the total FAA budget.

The percentages of FAA costs covered by projected aviation-related excise taxes are shown in Table 8 below, both with and without the tax rate reduction. Under baseline assumptions (with the tax rate reduction), the level of user support drops to 31 percent in 1992, when the full effect of the tax rate reduction occurs. This percentage rises to 35 percent in 1995. Without the tax rate reduction, the percentage paid by private sector users rises steadily from 54 percent in 1990 to 64 percent in 1995. Under either assumption, tax revenues fall significantly short of the FAA estimate that approximately 85 percent of its spending is attributable to private sector users. With the tax rate reduction, tax revenues would cover just 41 percent of the private sector share in 1995; without the tax rate reduction, they would cover 76 percent of the private sector share in 1995. As noted above, these percentages are not affected by the cap and penalty provisions.

TABLE 8. CBO BASELINE PROJECTIONS OF FAA SPENDING AUTHORITY AND PRIVATE SECTOR FUNDING SHARES WITH AND WITHOUT THE TAX RATE REDUCTIONS (By fiscal year, in millions of dollars)

	Actual 1989	1990	1991	1992	1993	1994	1995
Total FAA Spending Authority	6,391	7,140	7,529	7,847	8,178	8,524	8,884
Target Private Sector Share (85%)	5,432	6,069	6,400	6,670	6,952	7,245	7,551
Annual Tax Revenue With Tax Rate Reduction	3,664	3,824	3,019	2,438	2,604	2,822	3,078
Percentage of Total FAA Spending Authority	57	54	40	31	32	33	35
Percentage of Target Private Sector Share	67	63	47	37	37	39	41
Annual Tax Revenue Without Tax Rate Reduction	3,664	3,824	4,202	4,515	4,828	5,239	5,724
Percentage of Total FAA Spending Authority	57	54	56	58	59	61	64
Percentage of Target Private Sector Share	67	63	66	68	69	72	76

Note: The FAA spending authority line includes obligation limitations, and not budget authority, for airport grants-in-aid.

The penalty provision has been triggered regularly over the past several years. This has caused general fund spending to be greater, and trust fund spending to be less, than would otherwise have been the case. As a result, we estimate that the uncommitted balance in the trust fund at the end of 1989 was $5.3 billion more than the $1.6 billion it would have been if the penalty provision had not been in place. The amount "attributable" to the penalty clause is the amount by which the maximum amounts that could have been appropriated out of the trust fund for FAA operations were reduced because of the penalty clause. CBO assumes for the purposes of this estimate that, in the absence of the penalty clause, the maximum amounts that could have been appropriated out of the trust fund for FAA operations would have been appropriated.

7. Please provide CBO estimates, from FY 1991 through FY 1995, of the Airport and Airway Trust Fund under the following aviation financing and spending options:

   a. Revenues derived from either current tax rates or rates reduced by the trigger, and spending levels under CBO's baseline or alternative projections of needs, such as FAA estimates.

   b. Revenue derived from either current tax rates, rates reduced by the trigger or rates allowing for revenues equal to 85 percent of spending, and trust fund spending of 85 percent of total FAA spending projected according to both CBO's baseline and alternative estimates. Also, please provide estimates for 75 percent or 80 percent user support of FAA spending.

   c. Revenues derived from either current tax rates or rates reduced by the trigger, and spending levels under CBO's baseline or alternative projections of needs, with repeal of the penalty provision or repeal of the penalty and cap provisions.

Table 9 shows the projections requested in Question 7a. The first section of Table 9 uses baseline assumptions, while the second section assumes baseline spending but no reduction in tax rates. The differences between these two cases in terms of unexpended balances and uncommitted balances become larger each year, so that by the end of 1995, uncommitted balances are projected to be $2.3 billion if tax rates are reduced and $15 billion if tax rates are not reduced.

The third section of Table 9 shows projections under baseline assumptions for revenues--that is, with a reduction in tax rates--but alternative, higher spending assumptions. (As noted in the answer to Question 3 above, the assumptions about increased FAA spending are merely intended to be illustrative; they do not represent a CBO position as to what level of spending might be necessary or desirable.) In this case, unexpended and uncommitted balances decline more rapidly than under baseline assumptions. Uncommitted balances fall below zero by the end of 1993 and reach -$8 billion by the end of 1995.

If the assumption of increased spending is combined with the assumption of no tax rate reduction, the trust fund balances would remain positive, as shown in the fourth section of Table 9. Under these assumptions, the uncommitted balance at the end of 1995 would be $4.5 billion.

Tables 10-13 show the projections requested in question 7b. The projections under alternative assumptions about the percentage of total FAA spending authority to be covered by revenues and spending from the trust fund (see Table 11) suggest that the overall trust fund balances will remain stable as long as the percentage of spending authority from the trust fund is equal to revenues as a percentage of FAA

spending authority, at least within the range for which the projections were made. The same relationship can also be seen in Table 13, which makes parallel assumptions about revenues and trust fund spending as a percentage of total FAA spending authority.

It may seem surprising that the unexpended and uncommitted balances are higher in the alternative (higher) FAA spending cases of Table 13 than in the baseline spending cases of Table 11. The explanation is that while spending authority from the trust fund and revenues are constrained to be equal percentages of total FAA spending authority, the rate at which outlays are made after spending is authorized is less than the rate at which revenues are received. This raises the unexpended balance and the interest accruing on it.

Table 14 provides the projections requested in Question 7c. The projections assume that the maximum amounts that could be appropriated under the current cap clause (in effect for fiscal years 1988-1990) would in fact be appropriated for fiscal years 1991-1995. The effects of the penalty clause can be seen by comparing the projections of the corresponding sections of Tables 9 and 14. The first section of each table shows CBO's baseline projections, with (Table 9) and without (Table 14) the penalty clause. The second sections of Tables 9 and 14 show projections of the "no tax rate reduction" cases, with and without the penalty clause. The third sections show projections of the "increased FAA spending, with tax rate reduction" cases, and the final sections show projections of the "increased FAA spending and no tax rate reduction" cases, with and without the penalty clause.

In each of these comparisons, the projections assuming no penalty clause result in smaller unexpended and uncommitted balances. For instance, the uncommitted balance under baseline assumptions (Table 9, first section) would be $2.3 billion at the end of 1995; in comparison, the uncommitted balance under baseline assumptions but with no penalty clause (Table 14, first section) would be -$3.4 billion at that time. In other words, commitments would exceed the unexpended balance by $3.4 billion.

TABLE 9. AIRPORT AND AIRWAY TRUST FUND UNDER ALTERNATIVE SPENDING AND REVENUE ASSUMPTIONS (By fiscal year, in millions of dollars)

	1990	1991	1992	1993	1994	1995
CBO Baseline Projections of Spending and Revenues						
Unexpended Balance Beginning of Year	12,938	14,521	14,988	14,537	13,911	13,189
Tax Revenue	3,824	3,019	2,438	2,604	2,822	3,078
Outlays	3,483	3,839	4,136	4,404	4,635	4,831
Interest	1,242	1,287	1,247	1,173	1,091	1,009
Unexpended Balance, End of Year	14,521	14,988	14,537	13,911	13,189	12,445
Commitments Against Unexpended Balance	6,964	7,786	8,430	9,001	9,544	10,103
Uncommitted Balance End of Year	7,557	7,202	6,107	4,910	3,645	2,342
Projections Assuming Baseline Spending and No Tax Rate Reduction						
Unexpended Balance Beginning of Year	12,938	14,521	16,225	18,052	20,048	22,359
Tax Revenue	3,824	4,202	4,515	4,828	5,239	5,724
Outlays	3,483	3,839	4,136	4,404	4,635	4,831
Interest	1,242	1,341	1,448	1,572	1,707	1,870
Unexpended Balance, End of Year	14,521	16,225	18,052	20,048	22,359	25,121
Commitments Against Unexpended Balance	6,964	7,786	8,430	9,001	9,544	10,103
Uncommitted Balance End of Year	7,557	8,439	9,622	11,047	12,815	15,018

(Continued)

TABLE 9. (CONTINUED)

	1990	1991	1992	1993	1994	1995
Projections Assuming Increased Spending and Baseline Revenues						
Unexpended Balance Beginning of Year	12,938	14,521	14,645	13,244	10,644	7,514
Tax Revenue	3,824	3,019	2,438	2,604	2,822	3,078
Outlays	3,483	4,167	5,017	6,189	6,683	6,917
Interest	1,242	1,272	1,178	985	731	459
Unexpended Balance, End of Year	14,521	14,645	13,244	10,644	7,514	4,134
Commitments Against Unexpended Balance	6,964	9,366	11,465	12,440	12,472	12,322
Uncommitted Balance End of Year	7,557	5,279	1,779	-1,796	-4,958	-8,188
Projections Assuming Increased Spending and No Tax Rate Reduction						
Unexpended Balance Beginning of Year	12,938	14,521	15,882	16,759	16,782	16,685
Tax Revenue	3,824	4,202	4,515	4,828	5,239	5,724
Outlays	3,483	4,167	5,017	6,189	6,683	6,917
Interest	1,242	1,326	1,379	1,384	1,347	1,319
Unexpended Balance, End of Year	14,521	15,882	16,759	16,782	16,685	16,811
Commitments Against Unexpended Balance	6,964	9,366	11,465	12,440	12,472	12,322
Uncommitted Balance End of Year	7,557	6,516	5,294	4,342	4,213	4,489

TABLE 10. AIRPORT AND AIRWAY TRUST FUND WITH 1990 BASELINE BUDGET AUTHORITY AND OUTLAYS (ASSUMING TRUST FUND SPENDING AT 85 PERCENT OF TOTAL FAA SPENDING) (By fiscal year, in millions of dollars)

	1990	1991	1992	1993	1994	1995
Projections Assuming Baseline Revenues						
Unexpended Balance Beginning of Year	12,938	14,521	12,806	9,887	6,484	2,658
Tax Revenue	3,824	3,019	2,438	2,604	2,822	3,078
Outlays	3,483	5,926	6,316	6,682	7,016	7,319
Interest	1,242	1,192	959	675	368	44
Unexpended Balance, End of Year	14,521	12,806	9,887	6,484	2,658	-1,539
Commitments Against Unexpended Balance	6,964	7,786	8,430	9,001	9,544	10,103
Uncommitted Balance End of Year	7,557	5,020	1,457	-2,517	-6,886	-11,642
Projections Assuming No Tax Rate Reduction						
Unexpended Balance Beginning of Year	12,938	14,521	14,043	13,401	12,621	11,828
Tax Revenue	3,824	4,202	4,515	4,828	5,239	5,724
Outlays	3,483	5,926	6,316	6,682	7,016	7,319
Interest	1,242	1,246	1,160	1,073	984	904
Unexpended Balance, End of Year	14,521	14,043	13,401	12,621	11,828	11,137
Commitments Against Unexpended Balance	6,964	7,786	8,430	9,001	9,544	10,103
Uncommitted Balance End of Year	7,557	6,257	4,971	3,620	2,284	1,034

TABLE 11. AIRPORT AND AIRWAY TRUST FUND WITH 1990 BASELINE BUDGET AUTHORITY AND OUTLAYS (By fiscal year, in millions of dollars)

	1990	1991	1992	1993	1994	1995
Projections Assuming Both Trust Fund Spending and Revenues at 85 Percent of Total FAA Spending						
Unexpended Balance Beginning of Year	12,938	14,521	16,341	18,152	19,996	21,912
Tax Revenue	3,824	6,400	6,670	6,952	7,245	7,551
Outlays	3,483	5,926	6,316	6,682	7,016	7,319
Interest	1,242	1,346	1,457	1,574	1,687	1,806
Unexpended Balance, End of Year	14,521	16,341	18,152	19,996	21,912	23,950
Commitments Against Unexpended Balance	6,964	7,786	8,430	9,001	9,544	10,103
Uncommitted Balance End of Year	7,557	8,555	9,722	10,995	12,368	13,847
Projections Assuming Both Trust Fund Spending and Revenues at 80 Percent of Total FAA Spending						
Unexpended Balance Beginning of Year	12,938	14,521	16,340	18,151	19,995	21,910
Tax Revenue	3,824	6,023	6,278	6,543	6,819	7,107
Outlays	3,483	5,550	5,924	6,273	6,590	6,875
Interest	1,242	1,346	1,457	1,574	1,687	1,806
Unexpended Balance, End of Year	14,521	16,340	18,151	19,995	21,910	23,948
Commitments Against Unexpended Balance	6,964	7,786	8,430	9,001	9,544	10,102
Uncommitted Balance End of Year	7,557	8,554	9,721	10,994	12,366	13,846
Projections Assuming Both Trust Fund Spending and Revenues at 75 Percent of Total FAA Spending						
Unexpended Balance Beginning of Year	12,938	14,521	16,340	18,151	19,995	21,911
Tax Revenue	3,824	5,647	5,886	6,134	6,393	6,663
Outlays	3,483	5,174	5,532	5,864	6,163	6,430
Interest	1,242	1,346	1,457	1,574	1,687	1,806
Unexpended Balance, End of Year	14,521	16,340	18,151	19,995	21,911	23,950
Commitments Against Unexpended Balance	6,964	7,786	8,430	9,002	9,546	10,105
Uncommitted Balance End of Year	7,557	8,554	9,721	10,993	12,365	13,845

TABLE 12. AIRPORT AND AIRWAY TRUST FUND WITH ALTERNATIVE BUDGET AUTHORITY AND OUTLAYS (ASSUMING TRUST FUND SPENDING AT 85 PERCENT OF TOTAL FAA SPENDING) (By fiscal year, in millions of dollars)

	1990	1991	1992	1993	1994	1995
Projections Assuming Baseline Revenues						
Unexpended Balance Beginning of Year	12,938	14,521	12,812	9,380	4,455	-1,391
Tax Revenue	3,824	3,019	2,438	2,604	2,822	3,078
Outlays	3,483	5,920	6,808	8,099	8,792	9,154
Interest	1,242	1,192	938	571	123	-363
Unexpended Balance, End of Year	14,521	12,812	9,380	4,455	-1,391	-7,830
Commitments Against Unexpended Balance	6,964	9,367	11,466	12,441	12,473	12,324
Uncommitted Balance End of Year	7,557	3,445	-2,086	-7,986	-13,864	-20,154
Projections Assuming No Tax Rate Reduction						
Unexpended Balance Beginning of Year	12,938	14,521	14,049	12,894	10,592	7,779
Tax Revenue	3,824	4,202	4,515	4,828	5,239	5,724
Outlays	3,483	5,920	6,808	8,099	8,792	9,154
Interest	1,242	1,246	1,138	969	739	497
Unexpended Balance, End of Year	14,521	14,049	12,894	10,592	7,779	4,846
Commitments Against Unexpended Balance	6,964	9,367	11,466	12,441	12,473	12,324
Uncommitted Balance End of Year	7,557	4,682	1,428	-1,849	-4,694	-7,478

TABLE 13. AIRPORT AND AIRWAY TRUST FUND WITH ALTERNATIVE BUDGET AUTHORITY AND OUTLAYS (By fiscal year, in millions of dollars)

	1990	1991	1992	1993	1994	1995
Projections Assuming Both Trust Fund Spending and Revenues at 85 Percent of Total FAA Spending						
Unexpended Balance Beginning of Year	12,938	14,521	18,326	22,101	24,985	27,077
Tax Revenue	3,824	8,292	8,875	9,041	8,789	8,969
Outlays	3,483	5,920	6,808	8,099	8,792	9,154
Interest	1,242	1,433	1,708	1,942	2,096	2,212
Unexpended Balance, End of Year	14,521	18,326	22,101	24,985	27,077	29,105
Commitments Against Unexpended Balance	6,964	9,367	11,466	12,441	12,473	12,324
Uncommitted Balance End of Year	7,557	8,959	10,635	12,544	14,604	16,781
Projections Assuming Both Trust Fund Spending and Revenues at 80 Percent of Total FAA Spending						
Unexpended Balance Beginning of Year	12,938	14,521	18,325	22,099	24,984	27,076
Tax Revenue	3,824	7,804	8,353	8,509	8,272	8,441
Outlays	3,483	5,433	6,286	7,567	8,275	8,627
Interest	1,242	1,433	1,708	1,942	2,095	2,212
Unexpended Balance, End of Year	14,521	18,325	22,099	24,984	27,076	29,102
Commitments Against Unexpended Balance	6,964	9,366	11,465	12,440	12,472	12,322
Uncommitted Balance End of Year	7,557	8,959	10,634	12,544	14,604	16,780
Projections Assuming Both Trust Fund Spending and Revenues at 75 Percent of Total FAA Spending						
Unexpended Balance Beginning of Year	12,938	14,521	18,325	22,099	24,984	27,076
Tax Revenue	3,824	7,316	7,831	7,977	7,755	7,914
Outlays	3,483	4,945	5,764	7,035	7,758	8,099
Interest	1,242	1,433	1,708	1,942	2,095	2,212
Unexpended Balance, End of Year	14,521	18,325	22,099	24,984	27,076	29,103
Commitments Against Unexpended Balance	6,964	9,366	11,465	12,441	12,473	12,324
Uncommitted Balance End of Year	7,557	8,959	10,634	12,543	14,603	16,779

TABLE 14. AIRPORT AND AIRWAY TRUST FUND ASSUMING NO PENALTY CLAUSE (By fiscal year, in millions of dollars)

	1990	1991	1992	1993	1994	1995
CBO Baseline Projections of Spending and Revenues						
Unexpended Balance Beginning of Year	12,938	14,521	14,082	12,614	10,853	8,871
Tax Revenue	3,824	3,019	2,438	2,604	2,822	3,078
Outlays	3,483	4,705	5,034	5,333	5,598	5,830
Interest	1,242	1,248	1,128	968	794	614
Unexpended Balance, End of Year	14,521	14,082	12,614	10,853	8,871	6,734
Commitments Against Unexpended Balance	6,964	7,786	8,430	9,001	9,544	10,103
Uncommitted Balance End of Year	7,557	6,296	4,184	1,852	-673	-3,369
Projections Assuming Baseline Spending and No Tax Rate Reduction						
Unexpended Balance Beginning of Year	12,938	14,521	15,319	16,129	16,990	18,041
Tax Revenue	3,824	4,202	4,515	4,828	5,239	5,724
Outlays	3,483	4,705	5,034	5,333	5,598	5,830
Interest	1,242	1,302	1,329	1,366	1,410	1,475
Unexpended Balance, End of Year	14,521	15,319	16,129	16,990	18,041	19,410
Commitments Against Unexpended Balance	6,964	7,786	8,430	9,001	9,544	10,103
Uncommitted Balance End of Year	7,557	7,533	7,699	7,989	8,497	9,307

(Continued)

TABLE 14. (CONTINUED)

	1990	1991	1992	1993	1994	1995
Projections Assuming Increased Spending and Baseline Revenues						
Unexpended Balance Beginning of Year	12,938	14,521	12,576	8,702	3,460	-2,222
Tax Revenue	3,824	3,019	2,438	2,604	2,822	3,078
Outlays	3,483	6,146	7,211	8,347	8,554	8,749
Interest	1,242	1,182	899	502	50	-415
Unexpended Balance, End of Year	14,521	12,576	8,702	3,460	-2,222	-8,307
Commitments Against Unexpended Balance	6,964	9,366	11,465	12,441	12,473	12,324
Uncommitted Balance End of Year	7,557	3,210	-2,763	-8,981	-14,695	-20,631
Projections Assuming Increased Spending and No Tax Rate Reduction						
Unexpended Balance Beginning of Year	12,938	14,521	13,813	12,216	9,597	6,948
Tax Revenue	3,824	4,202	4,515	4,828	5,239	5,724
Outlays	3,483	6,146	7,211	8,347	8,554	8,749
Interest	1,242	1,236	1,100	900	666	446
Unexpended Balance, End of Year	14,521	13,813	12,216	9,597	6,948	4,369
Commitments Against Unexpended Balance	6,964	9,366	11,465	12,441	12,473	12,324
Uncommitted Balance End of Year	7,557	4,447	751	-2,844	-5,525	-7,955