PRESENT LAW AND BACKGROUND INFORMATION RELATING TO FINANCING OF THE AIRPORT AND AIRWAY TRUST FUND AND AIRPORTS

Scheduled for a Public Hearing
Before the
SENATE COMMITTEE ON FINANCE
on July 12, 2007

Prepared by the Staff
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JOINT COMMITTEE ON TAXATION

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CONTENTS

INTRODUCTION AND SUMMARY

The Senate Committee on Finance has scheduled a hearing for July 12, 2007, regarding financing for the Airport and Airway Trust Fund. This document[1] describes present law and provides background information on the excise taxes that fund the Airport and Airway Trust Fund. Also described is present law relating to private activity bond financing for airports, the budgetary treatment of excise taxes dedicated to a trust fund, the differences between taxes and fees, and issues arising in the design of transportation excise taxes.

The Airport and Airway Trust Fund provides funding for capital improvements to the U.S. airport and airway system and funding for the Federal Aviation Administration ("FAA"), among other purposes. The excise taxes imposed to finance the Airport and Airway Trust Fund are:[2]

- ticket taxes imposed on commercial passenger transportation by air;
- a cargo tax imposed on freight transportation by air;
- fuels taxes imposed on gasoline used in commercial aviation and noncommercial aviation; and
- fuels taxes imposed on jet fuel (kerosene) and other aviation fuels used in commercial aviation and noncommercial aviation.

Commercial aviation (the use of an aircraft in a business of transporting persons or property for compensation) is subject to the ticket tax and air cargo tax, as well as a 4.4 cent per gallon fuel tax.[3] Noncommercial aviation is subject only to the fuel taxes, but at higher rates.

The Code generally provides that the interest on qualified private activity bonds for airports is tax-exempt. However, the interest on such bonds is a preference item for purposes of the alternative minimum tax.

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[1] This document may be cited as *Present Law and Background Information Relating to Financing of the Airport and Airway Trust Fund and Airports*, JCX-42-07 (July 11, 2007). This document also may be found at www.house.gov/jct.

[2] Sec. 9502(b)(1). The Airport and Airway Trust Fund also is credited with interest under sec. 9602(b). Summary tables of the excise taxes and their respective tax rates can be found at page 13 of this document. Unless otherwise stated, all section references are to the Internal Revenue Code of 1986, as amended.

[3] As described below, this tax consists of two components: 4.3 cents per gallon dedicated to the Airport and Airway Trust Fund and 0.1 cent per gallon dedicated to the Leaking Underground Storage Tank Trust Fund. The higher fuel tax imposed on noncommercial aviation similarly consists of an Airport and Airway Trust Fund component plus 0.1 cent per gallon for the Leaking Underground Storage Tank Trust Fund.

In fiscal year 2006, the excise taxes combined to provide approximately $10.6 billion for the Airport and Airway Trust Fund. The taxes are scheduled to expire after September 30, 2007. Under the budget rules excise taxes dedicated to a trust fund are assumed for baseline purposes to be imposed at their current rates permanently (even if statutorily they are scheduled to expire). Therefore, the extension of a dedicated excise tax without modification before its expiration date will not result in a change in revenues over the baseline.

The FAA has recommended restructuring of the funding sources for the Airport and Airway Trust Fund. One factor that policymakers examine when contemplating imposing excise taxes on the transportation industry is cost allocation or recovery of costs. Analysts generally judge a tax more broadly in terms of efficiency, equity (horizontal and vertical), and administrability.

Authorizing committees may impose, or may authorize executive agencies to impose, nontax, or true, user fees that agencies may charge for specific services they provide. There are often disagreements as to whether certain charges constitute "fees" or "taxes." In general, a true fee is a charge levied on a class that directly avails itself of a governmental program, and is used solely to finance that program rather than to finance the costs of government generally. The amount of the fee charged to any payor generally may not exceed the costs of providing the services with respect to which the fee is charged. Fees are not imposed on the general public; there must be a reasonable connection between the payors of the fee and the agency or function receiving the fee. Those paying a fee have the choice of not utilizing the governmental service or avoiding the regulated activity and thereby avoiding the charge.

I. FINANCING OF THE AIRPORT AND AIRWAY TRUST FUND

A. Excise Taxes on Commercial Transportation

Ticket tax on transportation of persons by air

The Code imposes an excise tax on both domestic and certain international transportation of passengers by air. These taxes are scheduled to expire after September 30, 2007.[4]

Domestic air passenger excise tax

Domestic air passenger transportation generally is subject to a two-part excise tax. The first component is an *ad valorem* tax imposed at the rate of 7.5 percent of the amount paid for the transportation. The second component is a flight segment tax. For 2007, the flight segment tax rate is $3.40.[5] A flight segment is defined as transportation involving a single take-off and a single landing. For example, travel from New York to San Francisco, with an intermediate stop in Chicago, consists of two flight segments (without regard to whether the passenger changes aircraft in Chicago).

The flight segment component of the tax does not apply to segments to or from qualified "rural airports." For any calendar year, a rural airport is defined as an airport that in the second preceding calendar year had fewer than 100,000 commercial passenger departures, and (1) is not located within 75 miles of another airport that had more than 100,000 such departures in that

[4] Sec. 4261(j)(1)(A)(ii). The person making the payment (generally the passenger) is liable for the tax; airlines and others receiving payments are liable for remitting tax and are primarily liable if they fail to collect the tax. Secs. 4261(d) and 4263(c). A return of tax is made on a quarterly basis with semimonthly deposit requirements. For the domestic air passenger taxes, section 6302(e) provides that with respect to amounts considered collected during any semimonthly period, the deposit is made not later than the third day after the close of the first week of the second semimonthly period following the period to which such amounts relate. Thus, the deposits of tax are made on a deferred basis. Under Treas. Reg sec. 40.6302-3(b)(1), an airline may opt to compute the amount of tax to be deposited on the basis of amounts considered collected ("the alternative method") instead of on the basis of actual collections of tax. Under Treas. Reg. sec. 40.6302(c)-3(b)(3), the tax included in amounts billed or tickets sold during a semimonthly period is considered collected during the first seven days of the second following semimonthly period. The tax included for tickets sold during the first semimonthly period of a calendar month is considered collected during the period of the 1st day through the seventh day of the following month; the tax for tickets sold during the second semimonthly period of a calendar month is considered collected during the period of the 16th day through the 22nd day of the following month. The regulations give the following example: The deposit for the semi-monthly period beginning on January 1, 1993 (relating to amounts billed between December 1st and December 15, 1992) is due by January 12, 1993, three banking days after January 7, the seventh day of the semimonthly period.

[5] Sec. 4261(b)(1) and 4261(d)(4). The Code provides for a $3.00 tax during 2002 and thereafter, which is indexed annually for inflation, resulting in the current rate of $3.40.

year, (2) is receiving for payments under the Federal "essential air service" program, or (3) is not connected by paved roads to another airport.[6]

The domestic air passenger excise tax applies to "taxable transportation." Taxable transportation means transportation by air that begins in the United States or in the portion of Canada or Mexico that is not more than 225 miles from the nearest point in the continental United States and ends in the United States or in such 225-mile zone. If the domestic transportation is paid for outside of the United States, it is taxable only if it begins and ends in the United States.

Examples of taxable transportation include interchange agreements, which allow two or more unrelated corporations that own aircraft to use the others' aircraft on an as-needed basis; and time-sharing agreements whereby a person leases his or her airplane with a flight crew to another person.[7] Fractional ownership arrangements with a management company also can result in taxable transportation.[8]

For this purpose, "taxable transportation" does not include "uninterrupted international air transportation." Uninterrupted international air transportation is any transportation that does not both begin and end in the United States or in the 225-mile zone and does not have a layover

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[6] In the case of an airport qualifying as "rural" because it is not connected by paved roads to another airport, only departures for flight segments of 100 miles or more are considered in calculating whether the airport has fewer than 100,000 commercial passenger departures. The Department of Transportation has published a list of airports that meet the definition of rural airports. See Rev. Proc. 2005-45.

[7] Rev. Rul. 60-311, 1960-2 C.B. 341 (1960), holds that when the owner of an aircraft leases it to others for air transportation but retains possession, command, and control of the aircraft, the owner is furnishing a taxable transportation service within the meaning of section 4261. Rev. Rul. 76-394, 1976-2 C.B. 355 (1976), describes a situation whereby several related companies agree to share the operating expenses of an aircraft. The ruling holds that amounts paid by companies to the company that actually owns and operates the aircraft are taxable under section 4261.

[8] See *Executive Jet Aviation Inc. vs. United States*, 80 AFTR2d 97-5352 (Fed. Cir. 1997). *Executive Jet* involved a " NetJets" program. The program provided participants with air transportation and aircraft maintenance service and served parties who had the need for exclusive use of a corporate aircraft but who did not need the aircraft on a full-time basis. A party wishing to become a NetJets participant was required to own or lease an interest in an aircraft. Fractional interests ranged from one-eighth to seven-eighths. Pursuant to a management agreement, the management company assumed full responsibility for maintenance and operation of the aircraft. In addition, the management company was required to maintain all records, logs, and other materials required by the FAA to be maintained with respect to the aircraft. The management company further agreed to pay for fuel and to pay the salary and the travel and lodging expenses of the crew, to pay hangar and tie-down costs, landing fees, in-flight food and beverages expenses, and the expenses of flight planning and weather contract services. The management company also was required to provide a pool of professionally qualified pilots who were licensed to operate the aircraft. The rights of the fractional owners were substantially limited. The court found that the arrangement was similar to an air charter service and found it to be taxable transportation.

time of more than 12 hours. The tax on international air passenger transportation is discussed below.

International air passenger tax

For 2007, international air passenger transportation is subject to a tax of $15.10 per arrival or departure in lieu of the taxes imposed on domestic air passenger transportation.[9] The definition of international transportation includes certain purely domestic transportation that is associated with an international journey. Under these rules, a passenger traveling on separate domestic segments integral to international travel is exempt from the domestic passenger taxes on those segments if the stopover time at any point within the United States does not exceed 12 hours.

In the case of a domestic segment beginning or ending in Alaska or Hawaii, the tax applies to departures only and is $7.50 for calendar year 2007.

"Free" travel

Both the domestic air passenger tax and the international air passenger tax apply only to transportation for which an amount is paid. Thus, free travel, such as that awarded in "frequent flyer" programs and nonrevenue travel by airline industry employees, is not subject to tax. However, amounts paid to air carriers (in cash or in kind) for the right to award free or reduced-fare transportation are treated as amounts paid for taxable air transportation, and are subject to the 7.5 percent *ad valorem* tax (but not the flight segment tax or the international air passenger tax). Examples of such payments are purchases of miles by credit card companies and affiliates (including airline affiliates) for use as "rewards" to cardholders.

Disclosure of air passenger transportation taxes on tickets and in advertising

Transportation providers are subject to special penalties if they do not separately disclose the amount of the passenger taxes on tickets and in advertising. Failure to satisfy these disclosure requirements is a misdemeanor, upon conviction of which, the guilty party is fined not more than $100 per violation.[10]

Tax on air cargo transportation

Domestic air cargo transportation is subject to a 6.25 percent ad valorem excise tax on the amount paid for the transportation.[11] The tax applies only to transportation that both begins and

[9] Sec. 4261(c) and 4261(d)(4). The international air transportation tax rate of $12.00 is indexed annually for inflation, effective each January 1, resulting in the current rate of $15.10.

[10] Sec. 7275.

[11] Sec. 4271.

ends in the United States.[12] Unlike the air passenger taxes, only shippers (the persons paying for the transportation) are liable for payment of the air cargo tax.[13] There is no disclosure requirement for the air cargo tax. This tax expires after September 30, 2007.[14]

Exemptions

Helicopters and fixed wing aircraft engaged in certain activities

The domestic ticket taxes do not apply to air transportation (1) by helicopter for the purpose of transporting individuals, equipment, or supplies in the exploration for, or the development or removal of, hard minerals, oil, or gas, or (2) by helicopter or fixed wing aircraft for the purposes of the planting, cultivation, cutting, or transportation of, or caring for, trees (including logging operations).[15] These exemptions only apply if the helicopter or fixed-wing aircraft does not take off from, or land at, a facility eligible for assistance under the Airport and Airway Development Act of 1970, or otherwise use services provided pursuant to section 44509 or 44913 or subchapter 1 of chapter 471 of Title 49 of the United States Code, during such use.

Air ambulances

The domestic ticket taxes and air cargo taxes do not apply to any air transportation for the purpose of providing medical services by (1) helicopter or (2) fixed-wing aircraft equipped for and exclusively dedicated on that flight to acute care emergency medical services.[16]

Skydiving

Air transportation exclusively for the purposes of skydiving is exempt from the ticket taxes and the air cargo taxes.[17]

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[12] Pursuant to legislative history accompanying original enactment of this tax, no tax is imposed on certain "accessorial ground services."

[13] Transportation providers are subject to penalties if they fail to make reasonable efforts to collect the tax. Section 6672 provides that any person required to collect, truthfully account for, an pay over any tax imposed by this title who willfully fails to collect such tax, truthfully account for and pay over such tax, or willfully attempts in any manner to evade or defeat any such tax or the payment thereof, shall, in addition to other penalties provided by law, be liable to a penalty equal to the total amount of the tax evaded, not collected, or not accounted for and paid over.

[14] Sec. 4271(d).

[15] Sec 4261(f).

[16] Sec. 4261(g).

[17] Sec. 4261(h).

Seaplanes

Air transportation by seaplane generally is not subject to the ticket and air cargo taxes with respect to flight segments for which the takeoff and landing are on water. The places at which such takeoffs and landings occur cannot have received or be receiving financial assistance from the Airport and Airways Trust Fund.[18]

Small aircraft on nonestablished lines; sightseeing flights

The ticket taxes and air cargo taxes do not apply to transportation by an aircraft having a maximum certificated takeoff weight of 6,000 pounds or less ("small aircraft"), except when such aircraft is operated on an established line.[19] Under the Treasury regulations to be "operated on an established line" means "to be operated with "some degree of regularity between definite points. . . . The term implies that the air carrier maintains control over the direction, routes, time, number of passengers carried, etc."[20] Notwithstanding the nonestablished line requirement, the exemption for small aircraft applies when such aircraft is operated for the sole purpose of sightseeing.

Transportation by air for other members of an affiliated group

Under regulations prescribed by the Secretary, the ticket taxes and air cargo taxes do not apply to payments received by one member of an affiliated group from another member of such group for air transportation services for such member.[21] One member of the affiliated group must be the owner or lessee of the aircraft and the aircraft cannot be available for hire by persons who are not members of such group. The determination of whether an aircraft is available for hire by persons who are not members of an affiliated group is made on a flight-by-flight basis.

[18] Sec. 4261(i).

[19] Sec. 4281.

[20] Treas. Reg. sec. 49.4263-5(c).

[21] Sec. 4282.

B. Aviation Fuel Taxes

In general

Under section 4081, an excise tax is imposed upon (1) the removal of any taxable fuel from a refinery or terminal,[22] (2) the entry of any taxable fuel into the United States, or (3) the sale of any taxable fuel to any person who is not registered with the IRS to receive untaxed fuel, unless there was a prior taxable removal or entry.[23] The tax does not apply to any removal or entry of taxable fuel transferred in bulk by pipeline or vessel to a terminal or refinery if the person removing or entering the taxable fuel, the operator of such pipeline or vessel (excluding deep draft vessels), and the operator of such terminal or refinery are registered with the Secretary.[24] If the bulk transfer exception applies, tax is not imposed until the fuel "breaks bulk," i.e., when it is removed from the terminal, typically by rail car or truck, for delivery to a smaller wholesale facility or retail outlet, or removed directly from the terminal into the fuel tank of an aircraft.[25]

The term "taxable fuel" means gasoline, diesel fuel (including any liquid, other than gasoline, that is suitable for use as a fuel in a diesel-powered highway vehicle or train), and kerosene.[26] The term includes kerosene used in aviation (jet fuel) as well as aviation gasoline.

Section 4041(c) provides a back-up tax for liquids (other than aviation gasoline) that are sold for use as a fuel in aircraft and that have not been previously taxed under section 4081.

Kerosene for use in aviation

In general

In general, section 4081 imposes a tax of 24.4 cents per gallon on kerosene. However, for kerosene removed directly from a terminal into the fuel tank of an aircraft, reduced rates

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[22] A "terminal" is a taxable fuel storage and distribution facility that is supplied by pipeline or vessel and for which taxable fuel may be removed at a rack. A "rack" is a mechanism capable of delivering taxable fuel into a means of transport other than a pipeline or vessel. A terminal can be located at an airport, or fuel may be delivered to the airport from a terminal located off the airport grounds.

[23] Sec. 4081(a)(1).

[24] Sec. 4081(a)(1)(B).

[25] In general, the party liable for payment of the taxes when the fuel breaks bulk at the terminal is the "position holder," the person shown on the records of the terminal facility as holding the inventory position in the fuel. However, when fuel is removed directly into the fuel tank of an aircraft for use in commercial aviation, the person who uses the fuel is liable for the tax. The fuel is treated as used when such fuel is removed into the fuel tank. Sec. 4081(a)(4).

[26] Sec. 4083(a).

apply.[27] For kerosene removed directly from a terminal into the fuel tank of an aircraft for use in commercial aviation, the tax rate is 4.4 cents per gallon.[28] For kerosene removed directly from a

[27] If certain conditions are met, present law permits the removal of kerosene from a refueler truck, tanker, or tank wagon to be treated as a removal from a terminal for purposes of determining whether kerosene is removed directly into the fuel tank of an aircraft. A refueler truck, tanker, or tank wagon is treated as part of a terminal if: (1) the terminal is located within an airport, (2) any kerosene which is loaded in such truck, tanker or wagon at such terminal is for delivery only into aircraft at the airport in which such terminal is located, and (3) no vehicle licensed for highway use is loaded with kerosene at such terminal, except in exigent circumstances identified by the Secretary in regulations. In order to qualify for the special rule, a refueler truck, tanker, or tank wagon must: (1) have storage tanks, hose, and coupling equipment designed and used for the purposes of fueling aircraft; (2) not be registered for highway use; and (3) be operated by the terminal operator (who operates the terminal rack from which the fuel is unloaded) or by a person that makes a daily accounting to such terminal operator of each delivery of fuel from such truck, tanker, or tank wagon. Sec. 4081(a)(3).

[28] An airline seeking to buy fuel at the reduced rate for commercial aviation must be registered with the IRS and the terminal must be located within a secured area of an airport. The IRS has published a list of airports with secured areas in which a terminal is located. See Notice 2005-4, 2005-1 C.B. 289, at sec. 4(d)(2)(ii) (2005) (adopting the list from H.R. Conf. Rep. No. 755, 108th Cong., 2d Sess. 692 n. 718 (2004) with modifications) and Notice 2005-80, 2005-2 C.B. 953, at sec. 3(c)(2) (2005). The airports are: Ted Stevens International Airport, T-91-AK-4520; William B. Hartsfield Atlanta International Airport, T-58-GA-2512; William B. Hartsfield Atlanta International Airport, T-58-GA-2513; William B. Hartsfield Atlanta International Airport, T-58-GA-2536; Bradley International Airport, T-06-CT-1271; Nashville Metropolitan Airport, T-62-TN-2222; Logan International Airport, T-04-MA-1171; Baltimore/Washington International Airport, T-52-MD-1569; Cleveland Hopkins International Airport, T-31-OH-3109; Charlotte/Douglas International Airport, T-56-NC-2032; Colorado Springs Airport, T-84-CO-4108; Cincinnati/Northern Kentucky International Airport, T-61-KY-3277; Dallas Love Field Airport, T-75-TX-2663; Ronald Reagan National Airport, T-54-VA-1686; Denver International Airport, T-84-CO-4111; Dallas Fort Worth International Airport, T-75-TX-2673; Wayne County Metropolitan Airport, T-38-MI-3018; Newark Liberty International Airport, T-22-NJ-1532; Fort Lauderdale/Hollywood International Airport; T-65-FL-2158; Piedmont Triad International Airport, T-56-NC-2038; Honolulu International Airport, T-91-HI-4570; Dulles International Airport, T-54-VA-1676; George Bush Intercontinental Airport, T-76-TX-2818; Mid Continent Airport, T-43-KS-3653; John F. Kennedy International Airport, T-11-NY-1334; McCarren International Airport, T-86-NV-4355; Kansas City International Airport, T-43-MO-3723; Orlando International Airport, T-59-FL-2111; Midway Airport, T-36-IL-3376; Memphis International Airport, T-62-TN-2212; General Mitchell International Airport, T-39-WI-3092; Minneapolis-St. Paul International Airport, T-41-MN-3419; Minneapolis-St. Paul International Airport, T-41-MN-3420; Minneapolis-St. Paul International Airport, T-41-MN-3421; Louis Armstrong New Orleans International Airport, T-72-LA-2356; Oakland International Airport, T-94-CA-4702; Ontario International Airport, T-33-CA-4792; O'Hare International Airport, T-36-IL-3325; Portland International Airport, T-91-OR-4450; Philadelphia International Airport, T-23-PA-1770; Sky Harbor International Airport, T-86-AZ-4302; Pittsburgh International Airport, T-23-PA-1766; Raleigh/Durham International, T-56-NC-2045; Reno Cannon International Airport, T-86-NV-4352; San Diego International Airport, T-33-CA-4788; San Antonio International Airport, pending; Seattle Tacoma International Airport, T-91-WA-4425; San Francisco International Airport, T-94-CA-4701; Salt Lake City International Airport, T-84-UT-4207; Lambert International Airport, T-43-MO-3722; Tampa/St. Petersburg International Airport, T-59-FL-2110; Los Angeles International Airport, T-95-CA-4812; and Federal Express Corporation Memphis Airport, T-62-TN 2220.

terminal into the fuel tank of an aircraft for use in noncommercial aviation, the tax rate is 21.9 cents per gallon. All of these tax rates include a 0.1 cent per gallon component for the Leaking Underground Storage Tank Trust Fund. For kerosene removed directly from a terminal into the fuel tank of an aircraft for an exempt use (such as foreign trade or for the exclusive use of a State or local government), only the Leaking Underground Storage Tank Trust Fund tax of 0.1 cent per gallon applies.

"Commercial aviation" generally means any use of an aircraft in the business of transporting persons or property for compensation or hire by air.[29] Commercial aviation does not include transportation exempt from the ticket taxes and air cargo taxes by reason of sections 4281 or 4282 or by reason of section 4261(h) or 4261(i). Thus, small aircraft operation on nonestablished lines (sec. 4281), air transportation for affiliated group members (sec. 4282), air transportation for skydiving (sec. 4261(h)), and certain air transportation by seaplane (sec. 4261(i)) are excluded from the definition of commercial aviation (taxed as noncommercial aviation).

It is possible for specific aircraft to be used in both commercial aviation and noncommercial aviation. For example, a private corporate aircraft is treated as engaged in commercial air transportation when it transports persons for compensation. When the same aircraft transports only employees of the owner corporation, it is treated as engaged in noncommercial aviation. Thus, the determination of whether an aircraft is engaged in commercial or noncommercial aviation is made on a flight-by-flight basis. As discussed above, a flight-by-flight determination regarding taxation also is made with respect to aircraft owned by affiliated groups of corporations.

Exemptions

Under section 4082(e), tax is not imposed on kerosene placed in the fuel tank of an aircraft for a use that is exempt from the tax imposed by section 4041(c) (other than by reason of a prior imposition of tax). Nontaxable uses of kerosene for purposes of exemption from the tax imposed by section 4041(c) include:

- Use on a farm for farming purposes;[30]
- Use in foreign trade or trade between the United States and any of its possessions;[31]
- Use as a fuel in vessels and aircraft owned by the United States or any foreign nation and constituting equipment of the armed forces thereof;[32]

[29] Sec. 4083(b).

[30] Sec. 4041(f).

[31] Sec. 4041(g)(1).

[32] Id.

- Exclusive use of a State or local government;[33]
- Export or shipment to a possession of the United States;[34]
- Exclusive use of a nonprofit educational organization;[35]
- Exclusive use of a qualified blood collector organization for such organization for the collection, storage, or transportation of blood;[36]
- Use as a fuel in an aircraft owned by an aircraft museum and used exclusively for the procurement, care, or exhibition of aircraft of the type used for combat or transport in World War II;[37]
- Use as a fuel in (a) helicopters engaged in the exploration for or the development or removal of hard minerals, oil, or gas and in timber (including logging) operations if the helicopters neither take off from nor land at a facility eligible for Airport Trust Fund assistance or otherwise use federal aviation services during flights or (b) any air transportation for the purpose of providing emergency medical services (1) by helicopter or (2) by a fixed-wing aircraft equipped for and exclusively dedicated on that flight to acute care emergency medical services;[38] and
- Use other than as fuel in an aircraft.

Refunds and credits to obtain the appropriate aviation tax rate

If the kerosene is not removed directly into the fuel tank of an aircraft, the fuel is taxed at the general kerosene rate of 24.4 cents per gallon. A claim may be made for the difference between the tax paid and the appropriate aviation rate (21.9 cents per gallon for noncommercial aviation, 4.4 cents per gallon for commercial aviation, and 0.1 cent per gallon for an exempt use).[39]

For noncommercial aviation, other than for exempt use, only the registered ultimate vendor may make the claim for the 2.5-cent-per-gallon difference between the general kerosene rate (24.4 cents per gallon) and the noncommercial aviation rate (21.9 cents per gallon).[40] For

[33] Sec. 4041(g)(2).

[34] Sec. 4041(g)(3).

[35] Sec. 4041(g)(4).

[36] Sec. 4041(g)(5).

[37] Sec. 4041(h).

[38] Secs. 4041(l), 4261(f) and 4261(g).

[39] Sec. 6427(l)(4).

[40] Sec. 6427(l)(4)(C)(ii).

commercial aviation and exempt use (other than State and local government use), the ultimate purchaser may make a claim for the difference in tax rates (i.e., 17.5 cents per gallon or 24.3 cents per gallon, respectively), or the ultimate purchaser may waive the right to make the claim for payment to the ultimate vendor.[41] For State and local government use, the registered ultimate vendor is the proper claimant.[42]

Commercial aviation claimants are permitted to credit their fuel tax claims against their ticket tax liability, thereby reducing the amount of excise tax to be paid by persons using fuel in commercial aviation.

Transfers between the Highway Trust Fund and the Airport and Airway Trust Fund to account for aviation use

Kerosene that is not removed directly from the terminal into an airplane (e.g. the jet fuel is transferred from the terminal by highway vehicle to the airport) is taxed at the highway fuel rate of 24.4 cents per gallon. The Highway Trust Fund is credited with 24.3 cents per gallon of the 24.4 cents per gallon imposed. The remaining 0.1 cent is credited to the Leaking Underground Storage Tank Trust Fund. The Secretary then transfers to the Airport and Airway Trust Fund 4.3 cents per gallon for commercial aviation refund claims paid and 21.8 cents per gallon for noncommercial aviation refund claims paid. These transfers initially are based on estimates, and proper adjustments are made in amounts subsequently transferred to the extent prior estimates were in excess of or less than the amounts required to be transferred. Thus, to the extent refund claims are not made for the difference between the highway rate and the aviation rate, the Airport and Airway Trust Fund will not be credited for fuel used in aviation that was taxed at the highway rate.

Aviation gasoline

The tax on aviation gasoline is 19.4 cents per gallon. If aviation gasoline is used in commercial aviation, the ultimate purchaser may obtain a credit or refund in the amount of 15 cents per gallon, such that the tax rate on such gasoline is 4.4 cents per gallon.[43] If aviation gasoline is sold for an exempt use, a credit or refund is allowable for all but the Leaking Underground Storage Tank Trust Fund tax (0.1 cent per gallon).[44]

[41] Sec. 6427(l)(4)(C)(i).

[42] See secs. 6427(l)(5). Special rules apply if the kerosene is purchased by credit card issued to a State or local government.

[43] Sec. 6421(f)(2).

[44] Sec. 6416(a), sec. 6420 (farming purposes), sec. 6421(c), and sec. 6430.

Table 1 below summarizes the taxes on fuel used in aviation:

Table 1.–Taxes on Fuel Used in Aviation

Fuel Type	Tax Rate (including 0.1 cent for Leaking Underground Storage Tank Tax)
Jet Fuel and liquids other than aviation gasoline	
Commercial aviation	4.4 cents per gallon
Noncommercial aviation	21.9 cents per gallon
Exempt use	0.1 cent per gallon
Aviation gasoline	
Commercial	4.4 cents per gallon
Noncommercial	19.4 cents per gallon
Exempt use	0.1 cent per gallon

Table 2 below summarizes the taxes on commercial aviation (other than fuel taxes):

Table 2.–Taxes on Commercial Aviation (other than fuel taxes)

Tax Type	Tax Rate
Ticket tax	7.5 percent *ad valorem* tax plus $3.40 per domestic flight segment in 2007
International passenger tax	$15.10 per arrival or departure in 2007 ($7.50 for departures only for domestic segments beginning or ending in Alaska or Hawaii)
Air cargo tax	6.25 percent *ad valorem* tax

Repealed or expired excise taxes

Two additional excise taxes previously were imposed on air transportation. First, an annual civil aircraft use tax was imposed from 1971 to 1980. The tax rate was $25 plus 3.5 cents

per pound of the maximum certificated takeoff weight for turbine aircraft or 2 cents per pound of maximum certificated takeoff weight in excess of 2,500 pounds for other aircraft.[45]

Second, before 1984, aircraft tires and tubes were subject to tax as part of a general tire and tube excise tax that also applied to highway vehicles. Revenues from the annual aircraft use tax and the tax on aircraft tires and tubes (after 1970) were dedicated to the Airport Trust Fund.

[45] Before being completely repealed for periods after August 31, 1982, the tax was reduced to $6.25 plus 7/8 cent per pound of the maximum certificated takeoff weight for turbine aircraft or 1/2 cent per pound of maximum certificated takeoff weight in excess of 2,500 pounds for other aircraft.

II. TAX-EXEMPT FINANCING FOR AIRPORTS

In general

Interest on bonds issued by State and local governments generally is excluded from gross income for Federal income tax purposes. Bonds issued by State and local governments may be classified as either governmental bonds or private activity bonds. Governmental bonds are bonds the proceeds of which are primarily used to finance governmental functions or which are repaid with governmental funds. Private activity bonds are bonds in which the State or local government serves as a conduit providing financing to nongovernmental persons (e.g., private businesses or individuals). The exclusion from income for State and local bonds does not apply to private activity bonds unless the bonds are issued for certain permitted purposes ("qualified private activity bonds") and other Code requirements are met. Depending on the manner in which an airport is used, airports may be financed with either governmental bonds or qualified private activity bonds.

Tax-exempt bonds for airports

Governmental bonds

Governmental bonds can be used to finance airports so long as such bonds do not meet the tests for private activity bonds. Present law provides two tests for determining whether a State or local bond is in substance a private activity bond, the private business test and the private loan test. Private business use and private payments result in State and local bonds being private activity bonds if both parts of the two-part private business test are satisfied: (1) more than 10 percent of the bond proceeds is to be used (directly or indirectly) by a private business (the "private business use test"); and (2) more than 10 percent of the debt service on the bonds is secured by an interest in property to be used in a private business use or to be derived from payments in respect of such property (the "private payment test").[46] Private business use generally includes any use by a nongovernmental person (including the Federal government), which occurs pursuant to terms not generally available to the general public. For example, an airport runway that is only available for use by private air carriers may result in private business use which may preclude the use of governmental bonds to finance such runway. On the other hand, an airport runway that is available for use by private air carriers and the general public on the same terms may be eligible for financing with governmental bonds.[47]

The second standard for determining whether a State or local bond is a private activity bond (the private loan test) is whether an amount exceeding the lesser of (1) five percent of the

[46] The 10-percent private business use and payment threshold is reduced to five percent for private business uses that are unrelated to a governmental purpose also being financed with proceeds of the bond issue. In addition, the 10-percent private business use and private payment thresholds are phased-down for larger bond issues for the financing of certain "output" facilities. The term output facility includes electric generation, transmission, and distribution facilities.

[47] Treas. Reg. sec. 1.141-3(f), example 8.

bond proceeds or (2) $5 million is used (directly or indirectly) to finance loans to private persons. The use of bond proceeds to make a loan to a private air carrier is an example of an arrangement that may violate the private loan test.

Qualified private activity bonds

Although private use of an airport may preclude financing of such an airport with governmental bonds, such an airport may be eligible for tax-exempt financing with qualified private activity bonds. The definition of a qualified private activity bond includes an exempt facility bond, or qualified mortgage, veterans' mortgage, small issue, redevelopment, 501(c)(3), or student loan bond.[48] Among the categories of exempt facility bonds are bonds issued to finance airports.[49] The airport facilities financed by such bonds must be owned by a governmental unit. Airport facilities do not include the following facilities used in the trade or business of a private person: (1) any lodging facility; (2) any retail facility (including food and beverage facilities) in excess of a size necessary to serve passengers and employees at the airport; (3) any retail facility (other than parking) for passengers or the general public located outside the airport terminal; (4) any office building for individuals who are not employees of a governmental unit or the operating authority for the airport; and (5) any industrial park or manufacturing facility. Office space is further limited in that the office must be located on the premises of the airport and only a de minimis amount of the functions to be performed at such office can be unrelated to the day-to-day operations at the airport.

Issuance of most qualified private activity bonds is subject (in whole or in part) to annual State volume limitations ("State volume cap").[50] For calendar year 2007, the State volume cap, which is indexed for inflation, equals $85 per resident of the State, or $256.24 million, if greater. Exceptions from the State volume cap are provided for bonds issued for certain governmentally-owned facilities, including qualified private activity bonds for airports.

Alternative minimum tax and interest on airport bonds

The Code imposes an alternative minimum tax ("AMT") in an amount by which the tentative minimum tax exceeds the regular income tax for the taxable year. For noncorporate taxpayers, the tentative minimum tax is the sum of (1) 26 percent of so much of the taxable excess as does not exceed $175,000 ($87,500 in the case of a married individual filing a separate

[48] Sec. 141(e).

[49] Exempt facility bonds are bonds issued to finance: (1) airports; (2) docks and wharves; (3) mass commuting facilities; (4) high-speed intercity rail facilities; (5) facilities for the furnishing of water; (6) sewage facilities; (7) solid waste disposal facilities; (8) hazardous waste disposal facilities; (9) qualified residential rental projects; (10) facilities for the local furnishing of electric energy or gas; (11) local district heating or cooling facilities; (12) environmental enhancements of hydroelectric generating facilities; (13) qualified public educational facilities; (14) qualified green building and sustainable design projects; or (15) qualified highway or surface freight transfer facilities. Sec. 142(a).

[50] Sec. 146.

return) and (2) 28 percent of the remaining taxable excess. The taxable excess is so much of the alternative minimum taxable income ("AMTI") as exceeds the exemption amount. In the case of a corporation, the tentative minimum tax is 20 percent of so much of the AMTI for the taxable year as exceeds the exemption amount, reduced by the alternative minimum tax foreign tax credit for the taxable year.

AMTI is regular taxable income increased by certain adjustments and preference items. Tax-exempt interest income on qualified private activity bonds (other than qualified 501(c)(3) bonds) issued after August 7, 1986, is a preference item included in AMTI. This includes interest on qualified private activity bonds issued for airports. As a result, investors may require a higher interest rate for bonds subject to the AMT than for governmental bonds that are not subject to the AMT.

Limitations on advance refundings of airport bonds

A refunding bond is defined as any bond used to pay principal, interest, or redemption price on a prior bond issue (the refunded bond). The Code contains different rules for "current" as opposed to "advance" refunding bonds. A current refunding occurs when the refunded bond is redeemed within 90 days of issuance of the refunding bonds. Conversely, a bond is classified as an advance refunding bond if it is issued more than 90 days before the redemption of the refunded bond. Proceeds of advance refunding bonds are generally invested in an escrow account and held until a future date when the refunded bond may be redeemed. Thus, after issuance of an advance refunding bond, there is a period of time when both the refunding bonds and the refunded bonds remain outstanding.

Typically, the issuer of a tax-exempt bond uses an advance refunding (or current refunding) to take advantage of market interest rates that are lower than the interest rate prevailing when the refunded bond was issued. An advance refunding allows the issuer to lock-in lower interest expense during a period when the refunded bond cannot be redeemed prior to maturity.

There is no statutory limitation on the number of times that tax-exempt bonds may be currently refunded. However, the Code limits the number of advance refundings with tax-exempt bonds. Generally, governmental bonds and qualified 501(c)(3) bonds may be advance refunded one time. Generally, private activity bonds, other than qualified 501(c)(3) bonds, may not be advance refunded.[51] Thus, whether bonds used to finance an airport may be advance refunded depends on whether such bonds are issued as governmental bonds or qualified private activity bonds.

[51] The Gulf Opportunity Zone Act permits one advance refunding of certain exempt facility bonds for airports, docks, or wharves issued by the State of Alabama, Louisiana, or Mississippi, or any political subdivision thereof, notwithstanding the general prohibition on the advance refunding of such bonds.

III. BUDGETARY TREATMENT OF TRANSPORTATION EXCISE TAX REVENUES AND PROJECTIONS

Because most transportation excise taxes are dedicated to Trust Fund programs, extensions and modifications of the taxes frequently have been considered in conjunction with extensions and revisions of Trust Fund expenditure programs. Viewed in their totality, the excise taxes and programmatic expenditures require approval of at least three legislative components, by at least three committees in each House of Congress: the tax writing committee, one or more authorizing committees, and the appropriations committee. The tax writing committees ensure adequate revenues and review Trust Fund expenditure purposes; the authorizing committees consider competing transportation needs on a detailed level; and, the appropriations committees reconcile transportation spending needs with all other Federal spending needs. Historically, Trust Fund tax provisions and expenditure authorizations generally have been enacted as separate titles of a single Act; appropriations generally have been enacted separately as part of the annual Congressional appropriations process.

The budget rules provide for an assumption that excise taxes dedicated to a Trust Fund are imposed permanently (even if statutorily they are scheduled to expire).[52] The effect of this rule is that if Trust Fund excise taxes are extended without change before expiration of the taxes, there is no revenue score from the legislation. If a dedicated excise tax is reimposed after the tax has expired (and has been removed from the CBO revenue baseline), the resulting revenue increases may be scored under the budget rules to offset the revenue loss from the enactment of other tax provisions.

Table 3 below shows the Congressional Budget Office's projection of baseline tax receipts for the Airport and Airway Trust Fund for fiscal years 2007 through 2017.

[52] See 2 U.S.C . sec. 907(b)(2)(C). The Balanced Budget and Emergency Deficit Control Act of 1985, which established rules that govern the calculation of the Congressional Budget Office's baseline, expired on September 30, 2006. Nevertheless, the Congressional Budget Office continues to prepare baselines according to the methodology prescribed in that law.

Table 3.–Airport and Airway Trust Fund for Fiscal Years 2007 Through 2017
(millions of dollars)

Airport Taxes	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Transportation of persons by air	7,898	8,402	8,843	9,295	9,743	10,203	10,682	11,173	11,684	12,212	12,760
Transportation of property by air	541	576	616	657	699	743	789	837	888	941	997
Use of international air facilities	2,044	2,175	2,320	2,473	2,631	2,795	2,967	3,148	3,337	3,536	3,747
Aviation fuel for commercial use	550	566	584	602	618	635	652	668	685	702	719
Aviation fuel for noncommercial use (other than gasoline)	353	363	375	386	397	408	419	430	441	452	463
Aviation gasoline	44	45	46	47	48	49	50	50	51	52	53
AATF refunds	-74	-74	-74	-74	-74	-74	-74	-74	-74	-74	-74
LUST fuels	15	15	16	16	16	17	17	18	18	19	19
Total net aviation taxes	11,370	12,068	12,724	13,402	14,078	14,775	15,501	16,250	17,030	17,839	18,683
Airport and Airways Trust Fund (net)	11,356	12,053	12,709	13,386	14,062	14,758	15,483	16,232	17,011	17,821	18,664
Aviation taxes to the LUST Fund (net)	15	15	16	16	16	17	17	18	18	19	19

Source: Congressional Budget Office (totals may not add due to rounding).

IV. FEES VERSUS TAXES

Imposition of excise taxes and other "revenue measures" is within the exclusive jurisdiction of the House Committee on Ways and Means and the Senate Committee on Finance. Extension or modification of existing taxes, reinstatement of expired excise taxes, and imposition of fees and other measures that constitute revenue measures are included within this jurisdiction.

Authorizing committees may impose, or may authorize executive agencies to impose, non-tax, or true, user fees that agencies may charge for specific services they provide. There are often disagreements as to whether certain charges constitute "fees" or "taxes." These disagreements generally arise in one of three contexts: (1) determining whether there has been an unconstitutional delegation of the taxing power;[53] (2) determining whether legislation constitutes a revenue measure that must originate in the House of Representatives;[54] or (3) determining the committee assignment (including sequential committee referral) for a particular bill.[55]

In general, a true fee is a charge levied on a class that directly avails itself of a governmental program, and is used solely to finance that program rather than to finance the costs of government generally. The amount of the fee charged to any payor generally may not exceed the costs of providing the services with respect to which the fee is charged. Fees are not imposed on the general public; there must be a reasonable connection between the payors of the fee and the agency or function receiving the fee.[56] Those paying a fee have the choice of not utilizing the governmental service or avoiding the regulated activity and thereby avoiding the charge. In other words, the fee can be viewed as a payment for a special privilege, as opposed to a mandatory charge (or tax) imposed on the public at large for general or specified (e.g., Trust Fund) governmental purposes.

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[53] Article I, Section 8 of the U.S. Constitution includes among the enumerated powers of Congress the "Power To lay and collect Taxes, Duties, Imposts, and Excises." Congress is limited in its ability to delegate legislative authority to the Executive Branch.

[54] Article I, Section 7 of the U.S. Constitution (commonly referred to as the "Origination Clause") provides that "[a]ll Bills for raising Revenue [must] originate in the House of Representatives." This prerogative of the House is enforced by a privileged motion available to any Member, commonly referred to as a "blue slip" motion.

[55] See, e.g., 137 Cong. Rec. H501 (January 15, 1991) (statement of the Speaker of the House providing guidance for the application of House Rule XXI, Clause 5(b), regarding the referral of bills).

[56] See, e.g., the Statement of Managers on the Federal Aviation Reauthorization Act of 1996, clarifying that certain fees that the FAA is authorized to charge for overflight services provided to aircraft that neither take-off nor land within the United States may "not exceed the aggregate annual direct costs incurred by the FAA in providing air traffic services to such flights." (H. Rept. 104-848, p. 110). Also, see the report of the House Committee on Transportation and Infrastructure on that same legislation, to the effect that these user fees may not be based on "any non-cost based determination of the 'value' of the service provided. For example, assuming similar cost of serving different carrier and aircraft types, the FAA user fees should not vary based on factors such as aircraft seating capacity or revenues derived from passenger fares." (H. Rept. 104-714, Part 1, p. 50).

V. ISSUES ARISING IN THE DESIGN OF EXCISE TAXES DEDICATED TO TRUST FUNDS

Cost allocation or recovery of costs is one factor that policymakers examine when determining the merits of undertaking certain transportation infrastructure projects or when contemplating imposing excise taxes on the transportation industry. Analysts generally judge a tax more broadly in terms of efficiency, equity, and administrability. Efficiency involves an assessment of the benefit or well-being received from the utilization of scarce resources. Policies that distort consumer choice generally are said to reduce society's well-being. Equity involves an assessment of the "fairness" of a tax. Generally, two standards are applied: horizontal equity and vertical equity. Horizontal equity involves whether equivalently situated individuals are treated equivalently. Vertical equity involves the extent to which individuals in different economic circumstances, generally measured in terms of individual well-being, are treated differently. Administrability involves an assessment of the expense to the government and the taxpayer of collecting the tax imposed. In evaluating tax proposals, tradeoffs must be made among the three goals. Rarely is a tax that is deemed most equitable the most efficient or the most administrable tax. Likewise, the most administrable tax may not be the most efficient or most equitable.

Efficiency and transportation excise taxes

Economists generally conclude that private market outcomes constitute efficient outcomes–that is, private market outcomes create the greatest amount of benefit compared to the resources used. This conclusion may be described briefly as follows. In a free market, individuals will seek to purchase those goods that they value most highly. But they will purchase any given good only if they think the benefit the good will produce for them equals or exceeds the price they must pay to obtain the good. Likewise, suppliers of goods will supply goods as long as the price received from the buyer equals or exceeds the cost of supplying an additional unit of the good. Thus, those goods purchased represent the bundle of goods producing the greatest overall benefit relative to the costs expended to produce the goods. Following this line of reasoning, economists argue that efficiency is always increased as long as the price paid (or benefit received) for an additional unit of a good exceeds the incremental, or marginal, resource cost of producing the good. Conversely, efficiency is decreased whenever the price paid (or benefit received) for an additional unit of a good is less than the marginal resource cost of producing the additional unit of the good.[57]

The benefit principle, transportation excise taxes, and efficiency

While all taxes finance benefits (i.e., pay for government services), the incidence of particular taxes often is related only loosely to any benefits received from government services. Government provision of air transportation services, however, is different from the provision of

[57] For a more detailed discussion of economic efficiency in the provision of transportation services, see Congressional Budget Office, *Paying for Highways, Airways, and Waterways: How Can Users Be Charged?* (May 1992).

many other services. It is possible to exclude many citizens from the use of air transportation services. For example, generally licensed pilots and ticketed passengers on commercial airlines may use air traffic control services, while all citizens, without exclusion, enjoy the benefits of the national defense. This distinction makes the provision of air transportation services somewhat like the provision of other goods and services by the private market for which prices are charged.[58] Some people view the Airport and Airway Trust Fund excise taxes as payments for the provision of specific services (air traffic control) much as the fees collected at highway toll booths pay for the construction and maintenance of specific toll roads. Some argue that it is appropriate to tie certain government services or expenditures to specific tax revenues under what is sometimes referred to as the "benefit principle," of taxation.[59] Such taxes are often referred to as "benefit taxes." The tax is viewed as the price one must pay for the service. For example, to fly from New York to Washington one must buy a ticket, and that means one must pay the present-law ticket prices. When a tax is collected in return for a service provided, the efficiency standard remains unchanged. The tax generally would be viewed as promoting the efficient use of society's resources as long as the tax paid for an additional unit of the air transportation service equals or exceeds the incremental, or marginal, resource cost of producing the additional unit of air transportation service.

As a practical matter, it would be difficult to design and administer a pure benefit tax. Such a tax theoretically may require a different tax payment by each individual. Determining the correct payment and administering such a system would be costly. Moreover, many would view such taxes as unfair because two seemingly similar taxpayers may be asked to pay different amounts of tax. On the other hand, simplification may dilute some of the efficiency advantages of a theoretical benefit tax.

Marginal cost pricing, transportation excise taxes, and economic efficiency

An alternative way to achieve an economically efficient outcome is to set the price charged to users of a service equal to the marginal cost of providing that service to the individual user. As explained above, consumers compare the price of a service with the benefit they anticipate from receiving an additional unit of service. If the price exceeds the benefit, consumers will not use the additional service, or will decrease their use. On the production side, if consumers are charged less than the marginal cost of providing the service, they may be encouraged to overuse the service. Total welfare declines as costs exceed the benefits provided. If consumers are charged more than the marginal cost of providing the service, they may be discouraged from using the service. Total welfare could increase by further provision of the service because further use would produce benefits that exceed costs. When price equals marginal cost, there is neither overuse nor underutilization and society's resources are used efficiently.

[58] There are reasons that might lead to the conclusion that the private market would not provide transportation or other services, even if it were possible to exclude certain users and charge individual prices. See the discussion of economies of scale below.

[59] The benefit principle has long been advanced as a standard of equity and is discussed more in that context below.

The conclusion that efficiency results when users are asked to pay the marginal cost of providing the service is not the same as saying the user should pay the average cost of provision of the service. Thus, setting taxes by average cost generally will not lead to an efficient allocation of resources. Many cost allocation studies emphasize the average cost of services and make little attempt to measure the marginal cost of services.

The conclusion that marginal cost pricing produces an efficient outcome may appear contradictory to the previous discussion that benefit taxation could produce an efficient outcome. The previous discussion suggested that an outcome could be efficient if each user were charged his or her marginal benefit so long as that benefit exceeded the incremental, or marginal, cost of providing the service. The difference between that standard and the standard currently under discussion involves whether consumers of the service pay the full value of the benefit they receive or whether they pay the marginal cost of producing that benefit. When consumers pay only for the marginal cost of producing that benefit, there generally is value to the consumer beyond the value of the resources used to produce the benefit. When consumers pay the full value of the incremental benefit they receive, the provider receives as incremental profit that value of the benefit that exceeds the marginal cost of producing the service. Thus, the difference between the two efficient outcomes involves whether consumers retain the value of benefit in excess of cost or whether consumers pay that value of benefit in excess of cost over to the producer of the service.[60]

If the transportation excise taxes were imposed at levels that represented the incremental resource cost incurred for providing transportation services to each taxpayer, then the taxes could be called "economically efficient." However, in choosing a tax rate that equals a user's marginal cost, a question arises as to whether policymakers should look at short-run marginal costs or long-run marginal costs. Generally, short-run marginal costs would reflect resource costs when investment is fixed and long-run marginal costs would reflect resource costs assuming the level of capital investment can vary. That is, in the case of airports and airways, short-run marginal costs would involve the costs of maintenance and operation of the existing air traffic control system (e.g., the wages of air traffic controllers), while long-run resource costs would involve costs such as those associated with bringing a new nationwide radar system on line.

Marginal costs often will vary for the provision of services to different taxpayers. For example, certain airports suffer worse weather than others and may require additional costs to maintain operations. Imposing a tax to recoup marginal costs would imply differential taxes for users of different airports. Such a tax may violate the uniformity clause of the Constitution, but, even if it did not, a tax system with different rates of tax for many different users would be more complex and more costly to administer than the current transportation excise taxes. In practice, it may be difficult to discern marginal costs. Moreover, some might argue that such taxes are

[60] Economists call the benefit a consumer receives in excess of the price the consumer must pay the "consumer surplus." Likewise, economists call the revenue a producer receives in excess of the marginal cost of producing a good or service the "producer surplus." Thus, the difference between the two efficient pricing structures may be described as whether the consumer surplus is transferred to the producer.

unfair, in that they impose different burdens on otherwise similarly situated taxpayers. Modifications to address concerns of administrability and fairness may dilute the gains of economic efficiency that economists argue flow from marginal cost pricing. If a modification took the form of charging all air passengers the average cost of providing air traffic control services, some taxpayers might pay a tax greater than their marginal cost (implying inefficient underutilization of resources) and other taxpayers may pay a tax less than their marginal cost (implying inefficient overutilization of resources). Design of air transportation excise taxes to incorporate the efficiency properties of marginal cost pricing involves tradeoffs between the goals of efficiency, equity, and administrability.

Cost allocation and air transportation efficiency

Cost allocation as a basis of transportation excise tax design also may create an economically inefficient tax structure. The provision of transportation services often requires substantial capital investments. Fixed costs tend to be large compared with marginal costs. For example, the construction of a major new parallel runway at a hub airport requires a substantial fixed capital investment. The additional resource costs (wear and tear) imposed by one additional plane landing on the runway, once the runway has been built, is quite small in comparison. This means that the provision of many transportation services is often characterized by "economies of scale." Provision of a good or service is said to be characterized by economies of scale when the average cost of providing the good or service exceeds the marginal cost of providing that good or service. When this occurs, the average cost of providing the good or service is falling with each additional unit of the good or service provided. As discussed above, economists proffer setting prices or taxes equal to marginal cost to obtain economically efficient outcomes. However, in the presence of substantial economies of scale, the marginal cost is less than the average cost of providing the transportation service, and the revenues collected from equating taxes to marginal costs would not cover the full expenditure required to provide the service. That is, provision of the service may require a subsidy beyond the revenues provided by the economically efficient tax.[61]

On the other hand, advocates of cost allocation would set the price or taxes for transportation services at rates equal to the average cost of services. In the presence of substantial economics of scale, average cost pricing implies that consumers are being charged prices in excess of marginal resource costs and that less than the economically efficient level of air transportation services are provided. Indeed, an expansion of services would lead to a decline in the average cost of the service to each user. If each user could be charged that lower average price, the price paid would still exceed the marginal cost of the provision of the service, all costs would be recovered, and net economic well-being (efficiency) would increase. Charging a lower

[61] Some argue that the presence of economies of scale justify government involvement in certain infrastructure investments. They argue that when the economies of scale are great, the potential for cost recovery and profit from market prices may be insufficient for private providers to undertake the investment, even though provision of the service would create marginal benefits that exceed marginal costs.

average price, however, would not permit full cost recovery. Thus, the principle of cost allocation involves a tradeoff between economic efficiency and cost recovery.

Equity and transportation excise taxes

Equity involves an assessment of the "fairness" of a tax. To determine fairness it is necessary to look beyond the statutory incidence of a tax to its economic incidence, or market effect. Generally, two standards are applied: horizontal equity and vertical equity. In addition, some suggest the benefit principle as an equitable basis of taxation and others suggest cost recovery or cost allocation as an equitable basis of taxation.

Horizontal equity and air transportation excise taxes

Horizontal equity looks to whether equivalently situated individuals are treated equivalently. An issue in applying the notion of horizontal equity in the context of air transportation excise taxes is how broadly to interpret the concept of "equivalently situated individuals." For example, one could argue that the current excise tax on jet fuel is horizontally equitable because all providers of commercial air transportation by jet pay the same rate of tax per gallon of jet fuel. Alternatively, one might argue that the current excise tax is horizontally inequitable because those taxpayers providing air transportation services with modern, more fuel efficient equipment pay less tax per mile of air service provided than do those taxpayers providing air transportation services with less fuel efficient equipment. This analysis would change to the extent one views the economic incidence as on the passengers. If the passengers bear the tax, then the equipment that the service provider uses to provide the transport is immaterial to the determination of whether similarly situated passengers are being treated equally.

Vertical equity and air transportation excise taxes

Vertical equity involves the extent to which individuals in different economic circumstances, frequently measured by reference to individuals' incomes or other measures of economic well-being, are treated differently. It may not be appropriate to place undue emphasis on the vertical equity of any one tax or group of taxes that are part of a larger tax system. The importance of the vertical equity of any specific tax is by that tax's marginal effect on the vertical equity of the entire tax system. If the use of air transportation services is a larger share of the consumption expenditures of lower income individuals than of higher income individuals, the air transportation excise taxes, which tend to be proportional to the use of transportation services, would be considered to be regressive. That is, while the total amount of air transportation taxes paid may rise as individuals' incomes rise, the taxes as a proportion of income fall.

While it is possible to conceive of a system of transportation taxes in which the tax burden does not decline as income increases, such a system generally would require more information than is needed under the current tax collection system at the point of imposition. Any system that relies on characteristics of individual taxpayers generally will be administratively more complex and prone to evasion than one that treats all purchasers identically regardless of individual characteristics.

The benefit principle and transportation excise tax equity

According to the benefit principle, an equitable tax system is one under which each taxpayer contributes commensurately with the benefits that the taxpayer receives from the public services provided. Unlike the principles of horizontal equity or vertical equity, but like the notion of cost allocation discussed below, the benefit principle directly links tax and expenditure policy in an assessment of equity. Many analysts see several of the current Trust Fund excise taxes as examples of the benefit principle. However, these taxes only satisfy the benefit principle notion of equity in a rough way. For example, while jet fuel use depends on distances flown, each mile flown does not result in the same benefit generally, nor the same benefit for each air passenger. The New York - Washington air corridor may have a greater benefit to a business traveler Monday through Friday than for the same travel visiting a friend on the weekend, while the jet fuel consumed, and tax paid, would vary with the type of plane servicing the route and with the air traffic conditions. Moreover, expenditure decisions are made for specific outlays, while present-law taxes are paid independently of particular services provided, so there may be no direct linkage between the specific benefit received and the tax imposed. For example, all air travelers would pay taxes that finance an upgrade of air traffic control facilities in the Northeast even though many air travelers fly only within West Coast air corridors. Attempts to apply the benefit principle to taxation in a more precise fashion often would involve creating a more complex administrative structure in an attempt to account for benefit differences across individual taxpayers. The benefit principle may be more readily applied with respect to project specific fees.

Cost allocation and transportation excise taxes

Some analysts suggest that when looking at a joint financing and expenditure program, a fair way to assess the financing burden is not by the benefit received, but by allocating to each user a share of the expenditures related to the average costs that user imposes on the service. Such an approach attempts to allocate to each user, or class of users, the expenditures incurred that may be reasonably attributed to that user. Although such a tax system for air transportation may place the burden of financing the system on the users of the system, as was discussed in the context of the benefit principle above, it may not fully meet the equity objective because it allocates costs to each individual user of the transportation service in only a rough fashion. Reliance on broad averages may obscure substantial differences among different users within a broad user class.