Excise taxes

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Taxes levied on the manufacture, sale, or consumption of a single good or service or on a relatively narrow range of goods or services.

Excise taxes are an example of what have been traditionally called indirect taxes: taxes that are imposed on a transaction rather than directly on a person or corporation. Excise taxes are narrow-based consumption taxes, as compared with broad-based taxes such as a general sales tax or an expenditure tax. Excise taxes can be collected at various stages, including the point of production, the wholesale level, or the retail level.

Excise taxes are levied on either a unit or ad valorem basis. For unit (also known as specific) excises, the tax is denominated in terms of money per physical unit produced or sold. Examples include the U.S. government taxes of 18.41 cents per gallon of gasoline, $13.50 per gallon of distilled spirits, and $12 per departure and arrival international passenger airline ticket. Ad valorem excises are based on a percentage of the value of the product or service sold. The 10 percent federal tax (declining to 7.5% by the year 2000) on the cost of domestic airline passenger tickets and the 3 percent tax on the cost of telephone services are examples of ad valorem taxes.

Rationale for excises

The use of excise taxes is explained or justified by a variety of rationales. They are sometimes employed because of ease of administration. In the past (and continuing today in some less-developed countries), excise taxes were applied only to products produced in sectors of the economy with well-developed markets. Broader-based taxes, such as the income and general sales taxes, are difficult to administer when most of the economic activity takes place outside a structured market setting.

Excise taxes are sometimes used as a means of implementing an ability-to-pay approach to taxation. So-called luxury taxes are an example of this approach. The United States currently levies an excise tax on expensive passenger vehicles. This tax is set at 10 percent of the value in excess of a floor amount of $30,000. The tax on high-value automobiles has also been explained as a means of making foreign imports (which comprise a large percentage of such vehicles) more expensive than domestic automobiles. By taxing items consumed disproportionately by higher-income individuals, excise taxes can achieve an element of progressivity. There are questions, however, concerning horizontal equity because not all people at the same income level have similar expenditure patterns for luxury items.

Excises are also levied on goods or services that are considered harmful or undesirable, in an attempt to discourage consumption. Taxes based on this rationale are labeled sumptuary excises. Examples include taxes on alcoholic beverages, tobacco products, and wagering. Because many of the goods and services taxed by sumptuary excises have relatively inelastic demands, these taxes may have only a limited impact on curtailing consumption. This presents an added benefit, however, for the government in that it provides a relatively stable source of tax revenue. Sumptuary taxes are often popular politically because many citizens do not engage in the taxed activities, whereas purchasers of the taxed items do so voluntarily. Such taxes may have negative consequences from the standpoint of vertical equity because sumptuary excises are often highly regressive.

Excises may also be imposed as a technique for dealing with negative externalities. This is related in some ways to the sumptuary excises. Taxes on “gas-guzzling” automobiles and gasoline can be explained as a kind of Pigouvian (corrective) tax to reduce the divergence of the private and social costs relating to pollution or congestion. Such taxes are usually an imperfect technique for internalizing externalities, because an efficient Pigouvian tax should be related to the marginal damage caused by an activity, which is not necessarily proportional to the level of consumption.

Finally, excise taxes may be employed as a means of implementing a benefits-received approach to taxation. Gasoline taxes are an example. Gasoline usage is closely related to highway travel, thereby providing a link between taxes paid and benefits received from roadways. This link is further strengthened by earmarking where the revenues collected from an excise tax are designated for use in providing government services related to the activity. Examples include the earmarking of motor fuel taxes for highways and taxes on airline tickets for air traffic control and facilities expansion.

Economic impacts

The economic impacts of excise taxes are usually investigated using a partial equilibrium approach because excises apply to only one product or, at most, a narrow range of goods or services. An analysis of the incidence of an excise tax in a competitive industry is usually divided between its impacts in the short run and the long run. In the short run, an excise tax increases the price of the product, albeit by less than the full amount of the tax, and the price burden is shared by both the producers and the consumers. The exact effect depends on the elasticities of demand and supply for the product. The increase in price resulting from the tax will be greater as the elasticity of supply increases and the elasticity of demand falls. The impact on quantity will be greater as both the elasticity of demand and the elasticity of supply increase.

In regard to the sharing of the price burden, the more inelastic the demand, the larger the share of the tax borne by consumers. The more inelastic the supply, the larger the share borne by producers. In the limiting cases, the full price burden will be borne by consumers if demand is completely inelastic, whereas the full price burden will fall on producers if supply is completely inelastic.

In the long run, the price will increase by more than it does in the short run because of the exit of firms from the industry caused by losses created by the tax. In constant cost industries, the price will increase by the full amount of the tax; in increasing cost industries, by less than the amount of the tax; and in decreasing cost industries, by more than the amount of the tax. A constant cost industry is one in which industry costs are unaffected by the exit or entry of firms. An increasing cost industry is one in which the costs of all firms in the industry increase with the entry of new firms. In a decreasing cost industry, the costs of all firms fall with the entry of new firms.

In general, nothing can be said about the progressivity or regressivity of excise taxes because the answer depends on the consumption pattern by income class of each product that is taxed. As noted above, some excise taxes are highly regressive, such as those on tobacco and alcohol, while others, such as those targeting luxuries, may be progressive.

In regard to the welfare effects of excise taxes, excess burdens or deadweight losses generally result from the selective taxation of a small number of products. Such taxes distort consumer choices by driving a wedge between marginal cost and price. The more elastic the demand for a product, the greater will be the excess burden of an excise because such a tax will have a relatively large impact on the quantity consumed. In addition, the excess burden of an excise tax directly increases with the square of the tax rate—doubling the tax rate quadruples the welfare loss. This result argues for the use of a broad-based tax on a wide range of commodities rather than a high tax rate on a small number of goods.

It also follows from this that optimality can be achieved with a general set of selective excise taxes (given the amount of revenue to be collected) by setting excise tax rates for various products inversely to their elasticity of demand. While such a plan may be efficient in the sense that it minimizes excess burdens, it may have negative equity (distributional) consequences by taxing goods with inelastic demands (such as necessities) very heavily.

From the standpoint of efficiency, a general tax on all consumption at a uniform rate will generally dominate a partial system of taxation using excises. Such a tax does not distort consumer choices at the margin as excise taxes do. However, the general tax on consumption needs to be truly broad-based, with all goods (including leisure) part of the tax base. Such a broad base is extremely difficult to achieve.

Use of excise taxes

Historically, excise taxes have played an important role in the tax systems of most governments. They have declined in relative importance, however, in the last hundred years because of the increased reliance on broad-based taxes such as income, general sales, and value-added taxes. Today, less-developed countries rely somewhat more heavily on excises than more highly developed countries.

In the United States, excise taxes are used by all levels of government, with states relying most heavily on this source. At the federal level in 1991, various excises (not including customs duties) amounted to $42 billion, or 6.5 percent of federal tax revenues. At the state level, excises accounted for $50 billion in tax revenues in 1991, or 16.2 percent of state tax revenues. Local governments collected $10 billion, or 4.5 percent of own-source tax revenues, from excises.

Federal government excises include taxes on various fuels, tires for highway use, truck trailers, “gas-guzzling” automobiles, luxury items (high-valued automobiles), air transportation, telecommunications services, wagering, alcohol, tobacco, and firearms. States generally apply excise taxes to a narrower range of items including motor fuels, alcohol, tobacco, and wagering.

Some local governments, especially municipalities, tax a similar range of activities, although usually at a lower rate than the state.

Cross references: ability to pay; benefit principle; earmarking of taxes; elasticity, demand and supply; energy taxes; excess burden; fuel taxes, federal; incidence of taxes; luxury taxes; optimal taxation; progressivity, measures of; tobacco taxes.