Chapter 3

EVALUATION OF A VALUE-ADDED TAX

I. Introduction

This chapter evaluates a consumption-type value-added tax with tax liability calculated under the credit method from an economic and political perspective. This is the form of tax that has been adopted by the member countries in the European Economic Community (EEC) and would be the most likely candidate for the United States, if a policy decision were made to adopt a value-added tax.

Some of this discussion necessarily involves comparing a value-added tax with other taxes, such as the personal and corporate income taxes and the social security or payroll tax. This is because revenue generated by a value-added tax could also be raised by one of these other levies, or could permit these other taxes to be reduced. A more detailed discussion and evaluation of the individual and corporate income taxes appears in Volumes 1 and 2 of the Treasury Department Report.

II. Economic Effects

This section appraises a value-added tax with respect to its economic neutrality, impact on saving, distributional equity, and effects on prices and international trade. As noted in Chapter 2, a consumption-type value-added tax is similar to a retail sales in terms of its economic effects. Thus, the reader may find it easier to think of a retail sales tax, rather than a value-added tax, in evaluating these effects.

A. Neutrality

A neutral tax is one that does not interfere with the economic behavior of individuals or firms. Compared to the situation that would exist if no tax is imposed, a neutral tax would not interfere with the decisions of individuals to work or not work, to save or consume, or to consume one good or another; or with the decisions of firms on what to produce and what production methods to use. A cigarette tax, for example, is not neutral because it may discourage consumers from buying cigarettes. While some taxes are intended to change consumer behavior, neutrality is generally viewed as a desirable objective of tax policy because it is assumed that both the value of economic production and consumer satisfaction will decline if a tax forces either firms or individuals to change their behavior.

1. **Production neutrality.** In a market-oriented economy, business firms are motivated by competitive forces to use the most efficient production techniques. In this way, the goods and services demanded by consumers are produced, and at the lowest possible cost. If a tax

interferes with these production decisions, resources are used less efficiently and less output is available to satisfy consumer demand.

A consumption-type value-added tax would score high in production neutrality. By allowing a full deduction for the tax paid on purchases of capital equipment it would not distort production or investment decisions. Compared to a no-tax situation, the tax would not encourage firms to favor the use of either labor or capital in the production process. The total tax liability incurred by a firm, consisting of both the tax on its purchases and the tax on its sales (after allowing for the tax on purchases) would be the same regardless of the precise capital-labor mix. The corporate income tax has many distortions, it favors debt over equity finance, noncorporate over corporate products, labor over capital, and consumption over saving. As explained in the next section, a value-added tax would be neutral between consumption and saving. Since purchased consumption goods are subject to taxation, a value-added tax may discourage work effort by those who have the alternative of using leisure time to produce goods and services that would be taxed if purchased. An example of this result would be an individual using leisure time to paint a house or tend a garden. In contrast to a value-added tax, the individual income tax, because it is progressive and applies to both income that is saved as well as the return on saving, may discourage saving and risk taking, as well as work effort. Even though the payroll tax applies to most forms of labor, it probably is not neutral. It may discourage work effort, and the pay-as-you-go financing of social security may reduce saving.

2. **Consumption neutrality.** In a market-oriented economy, individuals "vote" for the goods and services they want to buy by signaling the prices they are willing to pay. These price signals are received by business firms, who produce those goods and services valued most highly by consumers. If a tax changes the structure of relative prices determined in the market place, consumers respond by buying more of some goods and less of others. The end result is reduced consumer satisfaction and a less efficient use of the economy's resources. A broad-based value-added tax, imposed at a single rate, would constitute a relatively uniform percentage of all consumer expenditures. Thus, it would be a reasonably neutral tax. The corporate income tax, in contrast, to the extent that it is reflected in higher prices, changes the structure of prices in the market place and interferes with consumption choices.

As explained in Chapter 7, it is unlikely that a Federal value-added tax would apply to all forms of consumption. Either for social, distributional, or administrative reasons, the tax would probably not apply in full to housing, medical care, insurance and finance, education, and religious and welfare activities. At most, the tax would apply to about 77 percent of total personal consumption expenditures. Exclusions from the tax base would make the tax less neutral and distort consumption and production decisions in favor of the preferentially-taxed items. The experience of other countries indicates that nonuniform coverage and rate differentiation are the prime

sources of nonneutrality in the value-added tax. It is for this reason, as well as to avoid administrative complexity, that departures from a broad base should be minimized and that rate differentiation should be avoided, particularly if alternatives exist for alleviating the burden of the tax on lower income groups.

B. Saving

Unlike an income tax, a value-added tax would be neutral toward the saving-consumption choice. Suppose that in an economy without taxes the interest rate is 10 percent. An individual with $100 of income could either purchase $100 of consumption goods this year or could save the $100 and purchase $110 of consumption goods next year. This individual could consume 10 percent more next year by not consuming (by saving) the $100 now. A value-added tax would not alter the basis for this choice between consumption and saving. Consider a value-added tax rate of 20 percent, levied on the tax-inclusive value of goods and services. Now the choice is between consuming $80 this year and paying $20 in tax or saving the $100 this year, allowing it to grow to $110, and consuming $88 next year and paying the remaining $22 in tax. Note that the net rate of return on saving is not affected by the value-added tax; it is still 10 percent. By postponing $80 of consumption this year, the individual can consume $88 or 10 percent more next year.

In contrast, a tax on income from capital, such as the corporate income tax or the individual income tax on interest or dividends, is not neutral between consumption and saving. (Of course, the unintegrated taxation of corporate income and dividends causes distortions beyond these.) Continuing the same example, an individual subject to a 20 percent income tax could, after paying the tax, purchase $80 of consumption goods this year or save the $80 in order to consume $86.40 next year, after paying a 20 percent tax on the $8 in interest earned on the $80 in savings. In the income tax case, the net return to saving is now only 8, rather than 10, percent. It is 20 percent less than it is with a value-added tax since both the amount saved and the interest earned on that amount are subject to the income tax.

This example demonstrates that a value-added tax is neutral with regard to the choice of whether to consume now or save for future consumption; the value-added tax does not discourage saving the way an income tax does. Assuming any increased saving is absorbed by higher real investment spending, a value-added tax may be superior to an income tax in fostering capital formation and economic growth. The amount of the increase in saving would depend on the responsiveness of saving to higher after-tax rates of return.

C. Equity

Consumption expenditures, as a percentage of income, fall as income rises. Individuals and families at the middle and upper income levels consume a smaller proportion of their income than those at the lower income levels. Thus, a broad-based value-added tax imposed at a

uniform rate would absorb a larger percentage of the income of those at the lower income levels than those at the middle and upper income levels. In other words, a value-added tax would be regressive, assuming no exemptions or differential rates for "necessities" or "luxuries". The individual income tax, in contrast, is progressive, since it allows for personal exemptions and a zero bracket amount and because tax rates rise with income. The distributional pattern of the corporate income tax is less clear. If it is reflected in lower returns to capital, it may be progressive, but if it is reflected in higher prices it is more like a nonuniform sales tax. The payroll tax also is regressive because of the earnings limit and because wage income falls, as a percentage of total income, as income rises.

Several observations can be made about the regressive nature of the value-added tax. As explained further in Chapters 5 and 8, regressivity has two facets: the absolute burden of the tax on those below the poverty level and the regressive effect on those above the poverty level. For those with income above the poverty level and subject to the income tax, the regressivity of the value-added tax can be offset by adjusting the income tax rates. But for those who are below the poverty level and not subject to the income tax, this approach is not helpful; the value-added tax could, however, be offset by a refundable tax credit administered through the income tax system or by increased transfer payments.

Generally speaking, reduced rates for purchases of certain commodities and exemptions from the tax base are not a desirable means of alleviating regressivity. They create administrative problems in distinguishing between taxed and tax-favored items. Should orange juice and orange soda, for example, be accorded the same tax treatment under a food exemption? If food purchases by everyone are tax free, the revenue cost may become excessive, and excluding everyone's food purchases from the tax base is not necessary in order to lessen the burden of the tax on low income individuals and families. If food is not taxed, the smaller tax base must be offset by higher rates on the items subject to taxation in order to raise an equivalent amount of revenue.

A value-added tax may also shift tax burdens within an income class because it may weigh more heavily on recently-formed families facing significant expenditures on consumer and household durables than on more established families who have already made these expenditures. Compared to an income or payroll tax, it may shift the burden of the tax from the working to the nonworking and the aged.

D. Prices

A value-added tax accompanied by an accommodating monetary policy and no offsetting reduction in other taxes would probably lead to a one-time increase in consumer prices in direct relation to the coverage and rate of tax. According to the discussion in Chapter 7, a broad, but realistic, tax base would cover about 77 percent of total

consumption expenditures. If a 10-percent value-added tax were applied to this base, consumer prices would rise by nearly 8 percent.

By and large, this would be a one-time increase in the consumer price level, not an annual occurrence. There may be some secondary price increases because of wage payments and other business contracts that are indexed to the general price level, but these would be modest by comparison with the initial increase.

The price-level impact could be offset to the extent other taxes were reduced. Consider, for example, a reduction in corporate taxes. Economists continue to differ on the shifting pattern of the corporate income tax. Some contend that it is treated like a business cost and reflected in higher product prices. Others argue that it reduces the after-tax return to capital. If the former observation is more accurate, the impact of reducing the corporate income tax would offset the price-increasing effect of the value-added tax. If the payroll tax (at least the employer portion) is reflected as a cost element in output prices, any reduction in this tax would also offset the price-increasing influence of the value-added tax.

The experience of those countries which have adopted a value-added tax confirms the view that it may generate a one-shot increase in the price level, but not an annual inflationary spiral. A staff study by the International Monetary Fund, "Is the Introduction of a Value-Added Tax Inflationary?," analyzed the impact of the introduction of the value-added tax on consumer prices in 31 countries. In some cases, the value-added tax was a revenue-neutral substitute for other taxes; in others the level of taxation was increased when the value-added tax was introduced. According to this study, in 21 of the 31 countries that were analyzed, the introduction of a value-added tax had no major impact on the price level. In four countries, the introduction of the value-added tax may have contributed to inflationary forces that were primarily the result of expansionary economic policies. In five countries, there was a one-time increase in the price level, but no subsequent effect on the rate of increase of prices. Only in Norway, according to the study, could a rate of increase in the price level be identified that could not be associated with other economic factors. The study concludes that introduction of a value-added tax is not "inherently" inflationary.

E. Balance of Trade

It is frequently argued that a value-added tax would improve the U.S. trade balance by making U.S. goods more competitive in world markets. This argument is based primarily on the realization that the value-added tax can be rebated on exports and levied on imports. Though there may be some validity to the argument, it is important to specify clearly the circumstances under which it would prevail.

The General Agreement on Tariffs and Trade (GATT) permits destination principle border tax adjustments for indirect taxes such as

sales or value-added taxes, but not for direct taxes such as the corporate or individual income tax or social security taxes. That is, indirect taxes, like the value-added tax, can be rebated on exports and imposed on imports, but no corresponding adjustments can be made for direct taxes.

Imposing a value-added tax without any reduction in the income tax, or some other direct tax, would not directly improve the U.S. balance of trade. Export subsidies and import taxes could, in a system of fixed exchange rates, increase a country's exports and reduce its imports. But, the export rebate and import tax allowed for the value-added tax are merely border tax adjustments required to put the value added tax on a destination basis. The export rebate merely allows exports to enter world markets free of value-added tax, not at a subsidized price below the pre-tax price. Similarly, imposing a value-added tax on imports merely places imports on an equal footing with domestically produced goods; it does not penalize imports. A comparison with state retail sales tax is illustrative; in any particular state, charging retail sales tax on a Toyota does not make a Chevrolet more competitive in that state, because the same sales tax applies to both automobiles. Nor would the Chevrolet be more competitive abroad just because it could be exported free of sales tax. As with a retail sales tax, the imposition of a value-added tax, with no offsetting change in any other taxes, would not directly improve the U.S. trade balance.

The analysis is somewhat different if a value-added tax is part of a revenue-neutral substitution for an existing direct tax, such as the corporate income tax or payroll tax. As noted above, under GATT neither the corporate income nor payroll tax may be rebated on exports and imposed on imports. Under traditional assumptions that these taxes are borne by share-holders or by labor, respectively, reducing them would have no effect on prices, and partially replacing them with a value-added tax would have no effect on the competitiveness of U.S. industry. The substitution of a value-added tax for either of these direct taxes could improve the U.S. trade balance only if the domestic price level remains unchanged, or at least increases by less than the full amount of the value-added tax. This would occur if one of these taxes is shifted to consumers and would be "unshifted" if reduced. Under these circumstances, the export rebate would reduce the price of U.S. exports, and the import tax would increase the price of imports relative to those of domestically-produced goods. In this instance, there would be a tendency for the U.S. trade balance to improve. Even this conclusion, however, requires some important qualifications.

First, it assumes that exchange rates are fixed, or at least are not allowed to adjust fully over time. Exchange rates, of course, have been allowed to adjust since 1971. Thus, any expansion in net exports resulting from the substitution of the value-added tax for the corporate income tax would be dampened by an appreciation of the dollar relative to other currencies. Second, other countries also have payroll and social security taxes. Thus, they could act to offset any expected improvement in the United States trade balance by

substituting increases in their (already existing) value-added taxes for these other taxes. Third, even if the partial replacement of the corporate income or payroll tax would improve the U.S. trade balance, the choice of whether to adopt a value-added tax is much too important to be driven by this consideration.

A value-added tax may be associated with an improved U.S. trade balance in a different way. To the extent that it allowed the corporate income tax to be reduced, U.S. industry may become more vigorous and better able to compete in world markets.

III. Political Concerns

This section evaluates the impact a value-added tax would likely have on the growth of government, the income tax, and the state and local tax base.

A. Growth of Government

A value-added tax would be an entirely new tax at the Federal level. It would raise substantial amounts of revenue. At 1988 levels of income and expenditure, a broad-based value-added tax would raise about $24 billion per percentage point of tax. Revenue from a value-added tax could be used to reduce the deficit, to reduce or replace other taxes, or to finance increased government spending for defense or social programs.

Policy makers, therefore, are likely to view the value-added tax as a mixed blessing. Some may applaud its economic neutrality and its anticipated favorable impact on economic growth and productivity, but be concerned over its potential for funding a permanently higher level of government spending. Others may attempt to balance its regressive aspects with its ability to generate funding for new or expanded government programs.

Foreign experience indicates that those countries with value-added taxes tend to be high tax, and presumably high government spending, countries. Table 3-1 shows taxes as a percent of national output (gross domestic product) for the United States and twelve other countries for 1982. According to the table, Canada, Japan, Switzerland, and the United States are relatively low tax countries. None of these four countries has a national value-added or retail sales tax. (Canada has a manufacturer's sales tax at the Federal level and Switzerland a wholesale level sales tax.) Over a longer time span, for nearly all European countries with a value-added tax, total taxes have increased as a percentage of national output since the introduction of the value-added tax. While value-added tax countries appear to have high taxes, generally, the causal relation, if any, is less clear. As shown in Table 3-1, some of the high tax countries also have high income and other direct taxes. The value-added tax is not the sole reason for the high level of taxation in these countries. Table 3-2 shows taxes on goods and services (in the first line) and value-added taxes (in the second line) as a percentage of total tax revenue for

Table 3-1

Federal, State, and Local Tax Revenue for Selected Countries
as Percent of Gross Domestic Product, by Type of Tax, 1982
(Country Rankings in Parentheses)

Country	Total tax revenue	Total indirect taxes a/		Direct taxes				
		Sales and excises	Total direct taxes	Social security b/	Corporate income	Noncorporate income c/	Property d/	Other e/
Sweden	50.26	12.17 (3)	38.09 (1)	15.32 (4)	1.68 (12)	20.50 (2)	0.51 (13)	0.08 (5)
Belgium	46.59	12.11 (4)	34.48 (3)	13.89 (5)	2.83 (6)	16.92 (3)	0.81 (12)	0.03 (8)
Netherlands	45.47	10.82 (7)	34.65 (2)	18.93 (2)	3.09 (5)	10.88 (8)	1.64 (8)	0.12 (4)
Denmark	43.97	16.19 (1)	27.78 (8)	1.24 (13)	1.14 (13)	23.38 (1)	1.97 (7)	0.06 (7)
France	43.72	12.97 (2)	30.75 (5)	19.84 (1)	2.22 (8)	5.62 (13)	1.61 (9)	1.42 (1)
United Kingdom	39.60	11.47 (6)	28.13 (7)	8.02 (11)	3.79 (3)	11.24 (6)	5.04 (1)	0.03 (8)
Italy	38.27	6.57 (10)	31.74 (4)	17.22 (3)	3.19 (4)	9.71 (11)	1.18 (11)	0.54 (2)
Luxembourg	37.69	8.40 (9)	29.29 (6)	10.81 (7)	5.81 (1)	10.45 (10)	2.21 (6)	—
Germany	37.27	9.88 (8)	27.39 (9)	13.48 (6)	1.91 (11)	10.77 (9)	1.22 (10)	0.01 (9)
Canada	34.85	12.06 (5)	22.79 (10)	3.93 (12)	2.79 (7)	12.20 (4)	3.14 (2)	0.46 (3)
Switzerland	30.93	6.06 (11)	24.87 (11)	9.59 (8)	1.91 (10)	11.06 (7)	2.31 (5)	—
United States	30.46	5.32 (12)	25.14 (12)	8.44 (9)	2.12 (9)	11.52 (5)	3.07 (3)	—
Japan	27.21	4.20 (13)	23.01 (13)	8.26 (10)	5.37 (2)	6.88 (12)	2.43 (4)	0.07 (6)

Office of the Secretary of the Treasury
Office of Tax Analysis

a/ Includes general sales, value-added, and specific excise taxes.
b/ Includes contributions of employers, employees, and self employed. Category is broadly defined to include all tax payments to institutions of general government providing social welfare benefits, provided they are levied as a function of pay or a fixed amount per person. Thus, for the United States this category includes contributions to the railroad retirement fund, unemployment insurance fund, workman's compensation fund, and civil service retirement program in addition, of course, to the more familiar social security-type payments made pursuant to the Federal Insurance Contributions Act (FICA).
c/ Includes income taxes on individual and unincorporated enterprise, such as proprietorships and partnerships.
d/ Includes taxes on net wealth, immovable property, estates, and gifts.
e/ Includes taxes on employers based on payroll or manpower and miscellaneous taxes which cannot be classified within a specific direct tax category.

Note: Details may not add to totals due to rounding.

Source: Organisation for Economic Co-operation and Development, Revenue Statistics of OECD Member Countries, 1965-1983 (Paris, 1984).

Table 3-2

Taxes on Goods and Services 1/ as a Percentage of Total Taxes
and Value-Added Taxes as a Percentage of Total Taxes, 1967-1982 2/ 3/

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Belgium	36.7	35.4	34.9	33.7	36.2	30.2	28.8	27.7	25.1	26.6	27.0	26.2	25.9	26.1	26.5	26.0
	--	--	--	--	20.4	18.4	17.7	18.1	15.7	17.1	16.9	17.0	16.7	16.8	17.5	16.7
Canada	--	--	--	--	--	32.4	34.0	34.6	32.1	31.7	32.4	32.2	32.7	32.6	34.0	34.6
	--	--	--	--	--	15.3	16.1	14.3	12.5	13.1	13.5	12.1	12.3	11.5	10.9	11.1
Denmark	38.6	41.0	42.0	36.6	34.1	34.6	33.3	29.9	32.2	33.5	37.6	38.1	38.7	37.4	37.4	36.8
	8.04/	18.6	20.1	18.8	18.2	18.1	17.9	17.1	17.2	17.7	19.1	21.1	22.1	22.2	22.9	22.4
France	37.1	35.6	38.2	37.0	37.0	36.8	34.9	34.3	32.0	31.6	30.5	31.2	31.3	30.1	29.8	29.7
	--	23.8	26.8	25.4	25.9	25.9	24.0	24.6	23.0	23.4	20.9	21.3	21.3	20.7	20.8	20.9
Germany	31.4	29.6	30.1	30.0	29.4	28.3	26.4	25.1	25.3	24.3	24.9	26.1	26.9	26.8	27.1	26.5
	--	13.1	16.5	17.1	17.1	16.4	14.9	14.3	14.7	14.2	13.8	15.1	16.1	16.7	17.0	16.4
Ireland	49.4	48.7	50.7	49.4	46.7	46.6	47.0	45.1	44.4	45.6	46.7	46.7	44.1	43.7	45.0	46.0
	--	--	--	--	--	--	16.3	16.2	14.7	15.6	16.9	19.4	17.1	14.8	15.4	19.4
Italy	37.0	35.9	36.5	35.9	34.1	32.0	32.5	31.6	27.9	26.8	30.3	27.5	28.3	27.4	21.3	17.2
	--	--	--	--	--	--	15.1	16.8	13.7	13.8	15.7	14.7	15.1	16.2	14.4	14.6
Luxembourg	23.2	22.5	20.8	19.4	20.1	21.7	20.9	17.7	20.1	19.2	18.3	17.5	18.3	19.8	21.2	22.3
	--	--	--	6.7	11.1	12.1	11.7	10.5	11.8	11.1	10.3	10.4	10.7	10.9	11.8	12.4
Netherlands	26.2	26.7	24.4	26.1	25.4	25.3	24.0	22.2	22.3	23.2	26.0	25.6	25.0	24.8	24.4	23.8
	--	--	11.2	14.6	15.5	15.8	15.2	14.3	14.4	15.0	15.9	16.0	15.8	15.9	15.7	15.0
United Kingdom	26.9	27.0	27.5	26.2	26.2	26.0	25.7	25.1	23.3	23.8	26.2	26.6	27.0	29.1	28.3	29.0
	--	--	--	--	--	--	3.74/	8.8	8.7	8.6	8.4	9.1	10.4	14.4	12.4	13.4
United States	16.8	17.3	16.4	16.9	18.1	17.2	16.9	16.3	16.1	16.1	17.2	17.1	16.5	16.6	17.6	17.5
	4.7	5.1	5.2	5.6	6.1	6.2	6.3	6.5	6.7	6.8	6.5	6.7	6.7	6.6	6.4	6.6

1/ Includes general sales, value-added, and specific excise taxes.

2/ Tax revenues include all levels of government: Federal, state, and local.

3/ First line is taxes on all goods and services, second line is value-added tax only. For United States, second line is state retail sales taxes. For Canada, second line is federal manufacturers sales tax.

4/ Value-added tax in effect for only part of the year.

Source: Organisation for Economic Co-operation and Development, Revenue Statistics of OECD Member Countries, 1965-1983 (Paris, 1984)

many of the same countries for a number of years. Since the table identifies value-added taxes separately, it is possible to compare the situation both before and after the adoption of the value-added tax. In most of these countries, the proportion of tax revenue raised through indirect taxation (sales, excise, and value-added taxes), has fallen since the adoption of the value-added tax. This reflects the growing importance of income and social security taxes, not a reduction in value-added taxes. Even though value-added taxes have generally increased as a percentage of gross domestic product over the period, they have not been as important as income and social security taxes in financing the growth in government in these countries. Still, according to Table 3-2, the absence of a value-added tax in Canada, Japan, Switzerland, and the United States, helps explain the relative unimportance of indirect taxation in those countries.

B. Impact on Income Tax

As noted, the revenue generated by a value-added tax could be used to finance a reduction in other taxes, such as the individual income tax. Thus, a value-added tax would permit further reductions in marginal tax rates, which would strengthen the incentives to work, save, and innovate, relieve the pressure on the definition of taxable income, and reduce the incentive to shelter income. To the extent that tax avoidance and evasion are motivated by high income tax rates, a value-added tax would also alleviate these problems and improve the administration and enforcement of the income tax and therefore its image.

C. State-Local Tax Base

A Federal value-added tax or retail sales tax might be viewed as an unwarranted intrusion by the Federal government into the fiscal domain of state and local governments. Forty-five states and the District of Columbia, as well as many local jurisdictions, impose general sales and use taxes, a revenue source which they may view as exclusively their own. Sales and gross receipts taxes account for about 35 percent of overall state and local tax revenue. In contrast, excises on goods and services, exclusive of the windfall profit tax, generate only about 4 percent of Federal tax receipts.

While the Federal government should be sensitive to the impact a national sales or value-added tax would have on state and local governments, it is not clear that this should preclude Federal adoption of such a tax. Experience with the income tax, of course, demonstrates that there can be Federal, state, and local government taxation of the same tax base. Forty-five states and the District of Columbia impose a corporate income tax, as does the Federal government. Similarly, forty-four states and many local governments have joined the Federal government in imposing an individual income tax.

A Federal retail sales tax (more so than a value-added tax) would offer the states an opportunity to improve the coverage and enforcement of their retail sales taxes. At present, many state taxes fall

considerably short of the objective of taxing a broad range of consumption goods at a uniform rate. Exemptions for food, clothing, and services are typical. On the other side of the coin, very few states exclude all capital goods and other business purchases from taxation.

A comprehensive Federal sales tax would offer the states an opportunity to "piggyback" the state taxes on the Federal base. States would enjoy the advantage of the broadly-defined Federal base, but would be free to set their own state tax rates depending on state fiscal needs. This would avoid any acrimonious intergovernmental disputes over the proper amount of sales tax revenue to be shared with the states. Federal-state piggybacking in this area would be easier under a Federal retail sales tax than under a Federal value-added tax. While they are economically equivalent taxes, it would be administratively difficult to piggyback state retail sales taxes on a Federal value-added tax. The latter, for example, would not distinguish between retail and nonretail sales. Thus, state retail sales taxes would not apply to all transactions incurring a Federal value-added tax, but only to retail sales. Both taxpayers and state tax administrators would have to grapple with the definition of a retail sale, as they do now. Any piggybacking of state retail sales taxes on a Federal value-added tax thus would be limited to the retail portion of the Federal tax.

IV. European Adoption and Experience

This section reviews the relevance for the United States of European experience with the value-added tax. The initial proposal for a value-added tax can be traced back to 1919. In 1949, the Shoup Mission to Japan proposed a value-added tax for the prefectures which was initially adopted, but then repealed. It was not until 1955 that France adopted a wholesale level value-added tax as a replacement for its multistage production tax. The more recent popularity of the value-added tax dates from the formation of the European Economic Community (EEC) in 1957 and the Community's interest in tax harmonization. Subsequently, the value-added tax was adopted by Denmark (1967), Germany (1968), the Netherlands (1968), Luxembourg (1970), Belgium (1971), Ireland (1972), and Italy and the United Kingdom (1973). (Greece is scheduled to adopt the value-added tax by 1986 as a condition of its membership in the Community.) The non-EEC European countries of Austria, Norway, and Sweden also have value-added taxes, as do many developing countries.

The purpose behind the formation of the EEC was to move Western Europe toward economic union, that is, to establish a single, integrated market for the movement of goods, services, people, and capital. When the Community was formed in 1957, all Member States with the exception of France (that is, Belgium, Germany, Italy, the Netherlands, and Luxembourg) imposed cascade-type turnover taxes. A tax was levied on each sale of an item as it passed through the production and distribution process. Because no relief was given for prior-stage taxes, the total tax on a product increased with each sale, hence, the name cascade turnover tax.

This type of tax gave rise to four problems: (1) It discriminated against multistage production processes and distorted business operations by creating an incentive to vertically integrate the production and distribution processes into a single firm to minimize tax liability. (2) It distorted international trade because it was impossible to accurately calculate the allowable border tax adjustments on exports and imports. (3) The effects of the cascade tax on income distribution were unknown. (4) The tax became very difficult to administer as further exemptions and rate differentials were adopted in ad hoc attempts to alleviate the adverse impact of the tax on production and investment decisions.

The consumption-type value-added tax answered all of these problems. It does not distort production methods and the credit method of calculation results in exact border tax adjustments. Its effect on income distribution was easier to determine and, as long as exclusions and rate differentiation are minimized, it is much easier to administer. Thus, beginning in 1967, the European Economic Commission issued a set of Directives requiring EEC Member Countries to replace their turnover taxes with a value-added tax and specifying some of the details of the new tax.

The European decision to adopt a value-added tax had three salient features: (1) It was a clear improvement of the European fiscal structure. The value-added tax corrected all of the faults of the cascade turnover tax. (2) It enabled the Member States to substitute one indirect tax for another and leave the balance between direct and indirect taxes relatively undisturbed. As shown in Table 3-2, income and other direct taxes have actually become more important sources of revenue in most of the EEC countries since the adoption of the value-added tax. (3) Because of the use of the cascade turnover tax, European countries were generally familiar with multistage sales taxes. Thus, adoption of the value-added tax drew on years of European experience with multistage taxation, but avoided the problems learned from that experience.

The United States, of course, does not have a Federal sales tax that needs to be overhauled, nor does it have experience with multistage sales taxes. If the United States decides to adopt a value-added tax, it should not be for the same reasons that applied in Europe.

Nevertheless, the United States can learn much from the European experience with the value-added tax. First, it is abundantly clear that the most workable form of the value-added tax is the consumption type, imposed on the destination principle, and collected by means of the tax-credit method. Second, serious administrative, compliance, and efficiency problems are involved in the use of the value-added tax to achieve non-revenue objectives. In particular, the European experience suggests that use of multiple rates of value-added tax and efforts to favor certain types of consumption through exclusions involve significant costs and complexities, as well as revenue loss.