TAX REFORM FOR FAIRNESS, SIMPLICITY, AND ECONOMIC GROWTH

The Treasury Department Report to the President

Volume 3 Value-Added Tax

Office of the Secretary
Department of the Treasury

November 1984

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INTRODUCTION

Many observers of the American fiscal scene believe that the Federal government should introduce a national sales tax. At the very least, a national sales tax could be used to take pressure off the income tax; that is, it would allow lower income tax rates and these, in turn, would cause less disincentives to work, save, invest productively, and innovate. In addition, a shift in the mix of taxation toward more reliance on taxes on consumption, rather than income, would reduce further the discrimination against saving found in current law. Some advocates of a national sales tax see it as a means of reducing the Federal deficit and its drain on the supply of national saving.

Despite the potential advantages of a national sales tax, the Treasury Department does not recommend that such a tax be adopted at this time. A national sales tax has disadvantages, as well as advantages; though these are not previewed here, they are discussed at length in Chapter 3. The most compelling reason for not proposing a national sales tax results from the context in which the Treasury Department conducted its review of the tax system.

As noted in Chapter 2 of Volume 1, Overview, the Treasury Department proposals are revenue neutral. This implies that any revenue obtained from a national sales tax would be used solely to reduce the income tax. Thus one must ask whether reducing pressure on the income tax would justify introduction of a whole new source of Federal revenue. The Treasury Department estimates that the process of introducing a Federal value-added tax would take roughly 18 months from the date of enactment. Thus, for example, even if a value-added tax were passed by Congress in mid 1986, it could not have an effective date before January 1, 1988. When fully in force, a value-added tax would require 20,000 additional personnel and cost about $700 million to enforce. The Treasury Department has concluded that the advantages of a national sales tax are not sufficient to justify this level of expenditure merely to reduce reliance on the income tax.

This volume considers in greater detail the issues involved in deciding whether or not the United States should adopt a national sales tax. A value-added tax is the type of sales tax that would be most appropriate for use at the Federal level, if a decision were ever made in favor of a national sales tax. This volume therefore concentrates on the description and evaluation of a value-added tax from an economic and administrative perspective. But it also discusses briefly other types of sales taxes.

Chapter 2 provides a basic description of a value-added tax. Value added can be conveniently thought of as the difference between a firm's sales and its purchases from other firms. A value-added tax is

a multistage sales tax levied at each point or stage in the production-distribution process. The retail value or price of a product is equal to the total of the values added at each of these stages. Thus, a value-added tax that includes the retail level would have the same aggregate tax base and raise the same amount of revenue as a retail sales tax, assuming the two taxes apply to the same goods and services and are imposed at the same rate of tax.

While there are different forms of value-added tax and alternative methods for calculating tax liability, the only form suitable for the United States would be a consumption-type value-added tax with tax liability determined under the credit method. This means that purchases of capital equipment would, in effect, be deductible in full in the year they are made and that a firm would calculate its tax liability by subtracting value-added tax paid on its purchases from other firms from the tax due on its sales.

Chapter 3 evaluates the economic effects and political concerns that would be associated with a value-added tax. A value-added tax would have several advantages, including neutrality toward saving, capital formation, production techniques, and consumption decisions. But it also would have several disadvantages: regressivity, a one-time increase in prices, Federal intrusion into the sales tax area, significant administration and compliance costs, and the possibility of greater public expenditures.

Chapter 4 evaluates several alternatives to a value-added tax: a retail sales tax, manufacturers and wholesale sales taxes, and a personal exemption value-added tax. Only a value-added tax or a retail sales tax would be basically neutral with respect to consumption and production decisions. That is, a properly designed tax of either type would not seriously distort the consumption behavior of individuals nor the production techniques and methods of business firms. In contrast, any pre-retail tax, such as a manufacturers or wholesale sales tax, would badly distort both consumption and production behavior. The result would be reduced consumer satisfaction and less tax revenue at a given rate. Pre-retail taxes also create substantial administrative problems that would not be present with either a retail sales or value-added tax. Though a retail sales tax and a value-added tax are similar, there may be both administrative and economic reasons for favoring a value-added tax, if a national sales tax is desired.

Chapter 5 discusses a number of specific design issues that would have to be resolved before a value-added tax could be implemented. These include: the distinction and choice between zero rating and exemption, which are two alternatives for providing differential tax treatment to selected commodities, transactions, or firms; the methods for reducing regressivity and the absolute burden of the tax on the poor; the choice between single or multiple rates of tax; and the tax treatment of exports and imports.

A fundamental characteristic of a value-added tax is that it functions most effectively if it is applied uniformly throughout the entire economy. Yet, implementation of this rule may not be possible for some forms of activity. Chapter 6 discusses a number of problem areas in which strict application of a value-added tax may be either difficult or inadvisable. These include some services, small business, farming, governmental entities and nonprofit organizations, housing, used goods, and fringe benefits.

Chapter 7 discusses the likely value-added tax base and the revenue that would be generated by a tax on that base. The projected 1988 level of personal consumption expenditures is about $3.1 trillion; each percentage point of a value-added tax levied on this total would yield about $31 billion. But a realistic base would be well below this figure. Rents, on both tenant and owner-occupied housing, would probably not be taxed. It is also likely that medical care, education, and religious and welfare activities would not be taxed, either for distributional reasons or to encourage certain activities. Banking and insurance may be excluded from the tax base because of the difficulty of properly defining value added in these sectors. These exclusions would result in a value-added tax base of about $2.4 trillion. Exclusions for food and medicine would reduce the base further.

A general sales tax is often criticized as unfair to lower income individuals and families. Two aspects to this equity argument can be distinguished: (1) the absolute burden of the tax on the lowest income groups, and (2) the regressivity of the tax or the relatively higher burden of the tax, as a percentage of income, at the lower income levels than at the middle or upper levels. Chapter 8 discusses four alternatives for reducing the burden of the tax on the poor: excluding certain goods and services from the tax base; providing a reimbursement for value-added tax paid on an average amount of essential consumption; adjusting transfer payments; and using a personal exemption type of value-added tax.

At the Federal level, a value-added tax would be an entirely new form of tax. The Internal Revenue Service would need substantial additional resources to administer a value-added tax properly. Chapter 9 provides the first publicly available appraisal of these additional resource needs.

Chapter 2

THE NATURE OF THE VALUE-ADDED TAX

I. Introduction

A value-added tax is a multistage sales tax that is collected at each stage or point in the production and distribution process. In a typical business operation, a firm purchases raw materials from its suppliers and produces a product or service by processing, manufacturing, distributing, or otherwise "adding value" to its initial purchases of goods and materials from other firms. While value added may be calculated in various ways, it is easiest to think of it simply as the difference between a firm's sales and its (non-labor) purchases of produced goods. If a firm buys $60 worth of raw materials from other firms and produces a product that sells for $100, its value added is said to be $40. With a tax rate of 10 percent, its value-added tax liability would be $4. Normally, of course, many different firms and activities are involved in producing a product and distributing it to the consumer. Consider the case of a loaf of bread. The farmer, miller, baker, trucker, and grocer are all involved in growing the ingredients, producing the bread, and delivering it to the consumer. In this example, a value-added tax would apply to the value added by each firm that is involved in the production and distribution of the bread.

Since many firms are usually involved in producing a good for the market, it is convenient to think of the retail price or value of a product (or service) as being equal to the total of the values added in the production and distribution process. The loaf of bread, in other words, will sell for the total of the value added by the farmer, miller, baker, trucker, grocer, and anyone else involved in getting it to the consumer. Thus, a value-added tax that extends through the retail level would collect essentially the same amount of tax on a product as would a retail sales tax levied at the same rate of tax. A value-added tax, however, differs from a retail sales tax in that the tax is collected piecemeal, in several stages, rather than exclusively on the retail sale.

II. Alternative Forms of Tax

There are three separate types of value-added tax: gross product, income, and consumption. They differ in their treatment of capital equipment that has been purchased from other firms. This difference may be illustrated by assuming that a firm calculates its value added by subtracting its purchases from other firms from its sales and then applying the tax rate to the resulting value added to determine its tax liability, even though this is not the method normally used to calculate tax liability under a value-added tax. For the sake of

simplicity and clarity of explanation, this illustration will also not consider the question of whether exports or government purchases would be subject to the tax.

A. Gross Product Type

In determining its tax liability under a gross product value-added tax, a firm would be allowed to deduct its purchases of raw materials from its sales, but it would not be allowed to deduct the cost of its purchases of capital equipment, or even the depreciation on that capital equipment. Since gross investment purchases (including depreciation) are subject to taxation, the economic base of a gross product value-added tax is similar to gross national product. Capital investment is, in effect, taxed twice under the gross product tax. Capital goods are taxed at the time they are purchased and also when the products they produce are sold to consumers. In contrast, raw materials and other non-capital items that are purchased from other firms (that is, purchases on current account) may be deducted from sales under a gross product tax. Output generated by these purchases is, of course, taxed at the time of sale.

A gross produce type of value-added tax would create significant administrative difficulties in those borderline cases where it is difficult to distinguish expenditures for capital goods from those for items that are exhausted currently in production or for repair and maintenance purposes. Since capital purchases are not deductible in determining tax liability, there would be an incentive to classify them as current expenditures. The difficulties would be more pronounced than under the income tax where capital expenditures are eligible for a depreciation allowance and perhaps an investment tax credit. There also would be an incentive for self-construction of capital goods.

Of the three different types of value-added tax, the gross product version places the heaviest tax burden on capital goods. It would discourage saving, discriminate against capital intensive methods of production, and cause firms to delay modernization and upgrading of plant and equipment by minimizing expenditures on capital assets. The gross product tax is best relegated to the realm of conceptual curiosities and should not receive serious consideration in public policy discussions.

B. Income Type

Under the income variant of the value-added tax, both purchases of raw materials and depreciation on capital goods would be deducted from sales in computing a firm's value added. Since net investment purchases (gross investment less depreciation) are subject to taxation, the economic base of this tax is similar to net national income. By taxing net investment, this tax would impose a tax burden on net purchases of capital goods. Because this type of value-added tax requires the calculation of depreciation allowances, it would have some of the same administrative problems that arise under an income

tax. Asset lives and depreciation paths would have to be specified. A given depreciation stream may not be correct if the rate of inflation changes markedly. There would be an incentive to classify purchases as current expenditures, which are deductible, rather than capital expenditures, which must be depreciated. This is not to criticize the income tax, but to point out that many of the same difficulties would arise under either an income tax or an income type value-added tax. As long as the United States has an income tax there is no reason to adopt an income-type value-added tax.

C. Consumption Type

Under the consumption-type value-added tax, all business purchases, including those for capital assets, would be deductible in calculating a firm's value added. Since a full deduction is allowed for gross investment, this alternative would result in a tax base equivalent to total private consumption. A consumption value-added tax avoids the need to distinguish between capital and current expenditures or to specify asset lives and depreciation allowances for capital assets. As noted above, both the gross product and income versions of the value-added tax would penalize capital investment by placing an additional tax burden on capital equipment purchases; the tax would be imposed on the capital good itself and on the output produced by the capital good. In contrast, a consumption-type value-added tax would be neutral between methods of production since substituting capital for labor (or vice versa) would not affect a firm's total taxes; it also would be neutral between the decision to save or consume. Because of these characteristics, the consumption version is the type of value-added tax used in Europe and the only type that should receive consideration in the United States.

III. Alternative Methods of Calculation: Subtraction, Credit, Addition

Though value added is often thought of as the difference between a firm's sales and its purchases, value-added tax liability may be calculated by three different methods: by subtraction, credit, or addition. These three alternatives are illustrated by the example in Table 2-1. That example assumes an economy with only three firms (one each in manufacturing, wholesaling, and retailing) and in which the manufacturing sector sells all of its output to the wholesale sector; the wholesale sector buys only from the manufacturing sector and sells all of its output to the retail sector. The rate of tax is 10 percent.

A. Subtraction Method

Under this method, illustrated in the top part of Table 2-1, a firm calculates its value-added tax liability by subtracting its purchases from other firms from its sales and applying the tax rate to the difference. With a consumption value-added tax, the deduction for purchases would include any capital equipment bought during the period. In contrast, only depreciation on capital equipment would be deductible under the income version of value-added tax. In either

instance, purchases of raw materials and other intermediate goods would be deductible in determining a firm's value added.

B. Credit Method

The credit, or invoice, method is used by all of the member countries in the European Economic Community (EEC) and by most other countries that have a value-added tax. Under the credit method, a firm's tax liability is determined by allowing the firm to subtract value-added tax paid on purchases from tax due on its sales. This method is illustrated in the middle panel of Table 2-1. The amount of deductible tax paid on purchases would include the full amount of tax paid on any capital equipment purchases in the case of a consumption-type value-added tax. Alternatively, for the income version of value-added tax, the tax paid on capital equipment would be amortized or depreciated over the life of the asset, rather than being deducted entirely in the year when the capital asset was purchased.

An important characteristic of the credit method is that except in the case of outright exemption of intermediate stages of production the tax on a product depends on the tax rate that prevails at the final taxable stage; this would be the rate levied at the retail stage in the case of a value-added tax that extends through the retail level. Thus, any value-added tax evaded by firms prior to the retail level would result in higher taxes at the retail level; lower tax rates at pre-retail stages would be offset by full collection of the tax at the retail level. This can be seen from a slight modification of the Table 2-1 illustration of the credit method. If no tax is paid by either the manufacturer or wholesaler, the total tax on the $1,100 in (pre-tax) retail sales would still be $110, the same as when the tax is distributed among the three sectors. (The example in Table 2-1 does not explicitly show the $10 in tax on the $100 in purchases made by Firm A, the manufacturer.) In this instance, the full tax liability would be collected at the retail level, the same as under a retail sales tax, since the retailer would have no credit for tax paid on purchases.

C. Addition Method

Though value added is equal to the difference between a firm's sales and its purchases, it also is equal to the payments for the labor and capital that generate the value added. Under the addition method, a firm's value-added tax liability is calculated by adding together the components of value added, wages, rent, interest, and net profit, and then applying the tax rate to that sum. It is illustrated in the lower panel of Table 2-1. Since net profit normally reflects a capital depreciation allowance, the addition method is usually associated with an income type of value-added tax. A consumption method value-added tax could be implemented by the addition method only if net profit was based on the expensing or full immediate deductibility of capital equipment purchases. If the objective is a consumption value-added tax, this can be achieved more easily under the credit method than by calculating net profit (with capital expensing) and

Table 2-1

Comparison of Three Methods of Calculating
Value-Added Tax Liability
(10 percent value-added tax)

	STAGE OF PRODUCTION			
	Firm A : Manufacturer	Firm B : Wholesaler	Firm C : Retailer	Total Economy
1. SUBTRACTION METHOD:				
Sales	$350	$850	$1,100	$2,300
Purchases	100	350	850	1,300
Value added (sales minus purchases)	250	500	250	1,000
Value-added tax	25	50	25	100
2. CREDIT METHOD:				
Sales	350	850	1,100	2,300
Tax on sales	35	85	110	230
Purchases	100	350	850	1,300
Tax on purchases	10	35	85	130
Value-added tax (tax on sales less tax on purchases)	25	50	25	100
3. ADDITION METHOD:				
Factor payments plus net profit				
Wages	150	300	200	650
Rent	50	100	20	170
Interest	25	75	20	120
Profit	25	25	10	60
Total	250	500	250	1,000
Value-added tax	25	50	25	100

adding it to the other factor payments. The calculation of net profit involves all of the problems that plague the current income tax.

D. Analysis and Summary

The subtraction, credit, and addition methods should be viewed as equivalent only in the case of a single rate of tax applying to nearly all goods and services. In such a situation, the three methods would work equally well and would generate the same amount of total tax revenue. A more realistic situation is one in which policymakers may prefer a single-rate value-added tax for administrative and efficiency reasons, but in which it will be necessary to tax some goods and services at special rates. In a world in which all goods and services are not taxed at the same rate, the credit method is superior to either the subtraction or addition alternatives.

Under the subtraction approach, virtually every sector of the economy would exert political pressure for special treatment. This is because ultimate tax liability on a given product would depend on two factors: value added in each sector or industry and the tax rate applied to that value added. Assuming that firms do not incorrectly overstate purchases or understate sales, they would have relatively little control over their value added subject to tax. But they would try to minimize their value-added tax liability by seeking preferential, or perhaps even zero, rates of value-added tax on their own sector or industry.

With the credit method, in contrast, since tax liability on final consumption depends on the tax rate imposed at the final or retail stage, the mining, agricultural, manufacturing, and other non-retail sectors would have less incentive to seek special treatment and be less likely to do so. Because any tax charged on their sales may be credited by their (non-retail) customers, it should (recordkeeping considerations aside) be a matter of indifference to firms making non-retail sales as to whether or not they are subject to the tax. Indeed, as shown below, exemption from tax would actually be adverse to the exempt firm's non-retail customers.

Special rates, which would be more likely under the subtraction or addition method than under the credit alternative, would have a number of adverse economic consequences. They would unfairly favor those consumers with strong preferences for lightly-taxed goods and penalize those preferring to buy more heavily-taxed items. To the extent that the nonuniform rates induced changes in buying habits, consumer satisfaction would decline and the government would collect less revenue. As explained in section IV, a so-called indirect tax, such as a value-added tax, may be rebated on exports under international trading rules. With differential rates for various sectors or products, it would be virtually impossible under the subtraction method to calculate the correct amount of tax that would be permitted as a rebate on exports and collected on imports. Differential rates would make the tax more complex, both for taxpayers and tax administrators, thus increasing compliance and administration costs.

Though multiple rates are far less satisfactory than a single rate of value-added tax, the experience of other countries demonstrates that it may not be possible to avoid them. The credit method is attractive not only because it makes the tax base less vulnerable to erosion from pleas of special interest groups for tax relief, but because it is superior to the subtraction method in accommodating the demands that will be made for tax relief for some goods or services. Under the credit method, goods and services can be freed of tax by simply applying a rate of "zero" at the retail stage and allowing a full credit for pre-retail taxes. In similar fashion, the accurate rebate of tax on exports occurs automatically. The same result could only be achieved under the subtraction method by applying a rate of zero at each and every stage of production or distribution through which the tax favored good or service passes.

Both the subtraction and credit methods contain incentive features that may assist the Internal Revenue Service (IRS) in the administration and enforcement of both the value-added tax and the income tax. Under the subtraction method, Firm A in Table 2-1 may have an incentive to understate its sales, for either value-added or income tax purposes. But its business customer, Firm B, has an offsetting incentive to have its purchases from A properly specified on the sales invoice so that Firm B gets a full deduction for those purchases. A similar "cross checking" situation exists under the credit method. Since Firm B may credit taxes it is charged by Firm A, it will wish to insure that Firm A's invoice properly identifies the tax on those sales. Thus, either the credit or subtraction method provides tax administrators with a record of sales and purchase information which may be useful for enforcement purposes. Analysis of the records of Firm B can be used in auditing the supplier (Firm A), or, the records of Firm A can be used to assist in an audit of Firm B (the customer).

The addition approach would have some of the same problems as the subtraction method in avoiding pleas for differential rates and in determining accurate border tax adjustments if the tax were not imposed at a uniform rate on all goods and services. It would probably not provide tax administrators with any more enforcement information than they now receive under the income tax.

IV. Border Tax Adjustments

In 1983, U.S. exports of goods and services were equal to about 10 percent of the economy's output. In the United States, as in other countries, the design of a value-added tax must take into account the fact that the movement of goods and services across national borders is commonplace.

Taxes on commodities entering international trade can be levied on either of two principles. A product can be taxed in either the country where it is produced or where it is consumed. If a product is taxed where it is produced, it is said to be taxed on the basis of its origin or place of production. Alternatively, if a product is taxed where it is consumed, it is taxed on the basis of its destination or

location of consumption. In principle, a value-added tax can be imposed on either of these bases, origin (production) or destination (consumption), but virtually all countries using the value-added tax rely on the destination principle so that imports and domestically-produced goods compete on an equal tax footing.

Suppose, referring again to Table 2-1, that the manufacturing activity took place in one country and the wholesaling and retailing activities in another country. A value-added tax could be implemented on an origin basis merely by allowing each country to tax (at whatever rate it chooses) value-added generated within its borders. The country of manufacture would tax $250 in value added, while the country in which the wholesaling and retailing activities occurred would tax the remaining $750 in value added. The origin principle could be implemented naturally by the subtraction method, since it provides a direct measure of value added. An important consequence of the origin principle is that a good traded internationally may bear a different amount of value-added tax than that of a competitive good produced exclusively in a single country. Only in the unusual case in which the exporting and importing countries have the same rate of value-added tax would the taxes on the traded and domestically-produced goods be the same.

As an alternative to the origin principle, a value-added tax may be implemented on a destination basis. In this case, value-added tax is imposed only where the good is consumed, not where it is produced. This necessitates a rebate of any tax imposed in the exporting country and a compensatory tax in the importing country to equalize the tax burden with a good that is domestically produced and consumed. The export rebate and import tax, designed to place traded and domestically-produced goods on an equal tax footing in the country where they are consumed, are known as border tax adjustments. State retail sales taxes are levied under the destination principle. A state retail sales tax is not imposed on goods destined for export out of the taxing state, but is levied on any imports sold to consumers in the taxing state.

The credit method of determining value-added tax liability is superior to either the addition or subtraction approaches for implementing the destination principle. The rebate of tax on exports is accomplished by simply applying a tax rate of zero at the export stage and giving the exporter full credit for any tax paid on inputs purchased to produce the export good. This procedure frees the export from all value-added tax imposed in the exporting country. Consider again the example in Table 2-1 in which manufacturing occurs in the exporting country and wholesaling and retailing in the importing country. The exporting country implements the destination principle by applying a rate of zero, rather than 10 percent, to the $350 in export sales and allowing a full credit or refund for the $10 in tax paid on purchases related to the export sales. In this way, those exports enter the importing country free of any value-added tax from the exporting country.

Unless the import good is purchased directly by the final consumer, rather than from a taxable firm, it is not even necessary for the importing country to explicitly levy the value-added tax at the import stage to implement the destination principle. Under the credit method, the tax on a product depends on the rate applied on the final sale to the consumer. As long as the retailer, in the Table 2-1 example, charges a tax rate of 10 percent on its $1,100 in sales, the full value-added tax of $110 will be collected. Even if the wholesaler was the importer, it would not be necessary for a tax to be levied on the wholesaler's import purchases. If value-added tax was imposed, the retailer would be allowed a credit, but if no tax is charged, there would be no credit. In either case, provided there is at least one taxable firm between the import stage and final consumer, the credit method will insure that consumption of imports and domestically-produced goods takes place on an equal tax footing, as required by the destination principle.

In contrast to a credit method value-added tax, there are substantial complexities to implementing the destination principle under either the subtraction or addition methods. Under the credit method, prior-stage tax is revealed directly by the amount of credit available with respect to a firm's purchases. Thus, the border tax adjustment on exports can be determined precisely. But, under the addition and subtraction methods, if the value-added tax rate at each of these pre-export stages is not the same, it would be very difficult for the exporting country to know the correct amount of value-added tax to allow as an export rebate. To determine the current amount of border tax adjustment it would be necessary to know the number of previous stages, the value added at each of those stages, and the tax applied at each of those stages.

On the import side of the ledger, any tax not imposed at the import stage under the addition method would be lost completely. Under the subtraction method, the destination principle would be implemented by denying a firm a deduction for purchases of inputs on which no tax had been paid. This should probably occur at the import stage. Still, it will be difficult to treat imports and domestically-produced goods the same if different rates of tax have been applied at pre-retail stages to the domestic goods. In contrast to the credit method, both the addition and subtraction alternatives would place pressure on tax administrators to ensure that value-added tax was collected at the import, as well as at all subsequent taxable stages.

V. Value-Added Tax versus Retail Sales Tax

A consumption-type value-added tax that extends through the retail stage is similar to a retail sales tax in that the two taxes will collect the same amount of revenue, assuming they are imposed at the same rate of tax and have equal coverage. This is illustrated in Table 2-2 which compares a consumption-type value-added tax with a retail sales tax, each levied at 10 percent. Value-added tax liability is calculated under the credit method. In each case, the product sells at

retail for $1,000, before tax. Under the retail sales tax, illustrated on the right-hand side of Table 2-2, the retailer charges the customer a tax of $100 and sells the product for $1,100, including tax. Neither the manufacturer nor wholesaler charge retail sales tax since neither makes retail sales. This same total amount of tax of $100 is collected under the value-added tax, but it is collected piecemeal from the manufacturer ($25), wholesaler ($50), and retailer ($25), rather than being collected entirely at the retail level. Thus, a value-added tax can be viewed as a multistage tax equivalent to a retail sales tax. With equal coverage and tax rates, the two taxes will raise equivalent amounts of revenue.

Administrative differences between the two taxes create some important economic differences. They are mentioned here and discussed more fully in Chapter 4. The number of firms involved may be smaller under a retail sales tax, but the difference may not be as significant as first appears since nonretail firms may make some (taxable) retail sales. It also is necessary for tax administrators to check that tax-exempt purchases by nonretail firms have been made for legitimate tax-free purposes. A value-added tax may be more successful than a retail sales tax in freeing capital equipment and other business purchases from tax. Reportedly, this was the reason that Sweden replaced its retail sales tax with a value-added tax in 1969. If capital equipment and business purchases are taxed, the multiple taxation that arises discriminates against those goods produced with business equipment that has been taxed and makes it difficult to calculate the proper border tax adjustments on exports sales. Imports would receive preferential treatment compared to domestically-produced goods since the border tax adjustment would apply to the import itself, but not to the capital equipment used to produce the import.

A value-added tax will be more successful than a retail sales tax in collecting some revenue on those transactions escaping taxation through the "underground economy," which consists of informal economic activity not reported for tax purposes and illegal activities associated with narcotics, gambling, and prostitution. Because value-added tax is collected at each of the links in the production and distribution process, some tax will be collected even if no tax is charged on the actual retail sale. Even if an enterprise does not pay tax on its retail sales, it would, the argument goes, at least pay tax on its purchases. This assumes, however, that the firm is not able to successfully claim a credit or refund for tax paid on those purchases related to the sales on which it does not charge tax.

To the extent that it substitutes for an income tax, a value-added tax might even be successful in reducing the "tax gap," which IRS estimated to be about $90 billion annually in 1981 (before being reduced by subsequent tax rate reductions and changes in enforcement procedures). The tax gap relates to income taxes, not to sales or value-added taxes, and is defined as the difference between the total amount of income tax (corporate and individual) voluntarily paid for a given year and the correct tax liability for that year. According to recent IRS estimates, the underground economy, accounts for only 15

Table 2-2

Comparison of Value-Added and Retail Sales Tax

PRODUCT STAGE	VALUE-ADDED TAX (10 Percent)			RETAIL SALES TAX (10 Percent)		
	Before Tax	Tax	After Tax	Before Tax	Tax	After Tax
MANUFACTURE:						
Sales	$250	$25	$275	$250	$ 0	$250
Purchases	-	0			0	0
Net Tax		25			0	
WHOLESALE:						
Sales	750	75	825	750	0	750
Purchases	250	25	275	250	0	250
Net Tax		50			0	
RETAIL:						
Sales	1000	100	1100	1000	100	1100
Purchases	750	75	825	750	0	750
Net Tax		25			100	
TOTAL TAX		$100			$100	

percent of the total income tax gap. The remainder of the tax gap reflects many forms of noncompliance unrelated to the underground economy, such as: the failure to properly report income from unincorporated businesses, dividends, interest, and capital gains; overstating deductions and business expense; failure to file income tax returns; and failure to pay acknowledged liabilities. To the extent that any of this unreported income stemming from noncompliance is used to purchase taxable goods and services, a value-added tax would reach this portion of the tax gap, regardless of whether the income was from unreported activities or from the illegal sector.

Forty-five states have a retail sales tax, but none has a consumption-type value-added tax. (Michigan has an additive-type, income-based value-added tax which replaced its state corporate income tax, but has corporate profits in its base.) If the Federal government were to adopt a national sales tax, it might be possible to piggyback the state sales taxes with a national retail sales tax. This kind of Federal-state coordination would be more difficult to achieve with a value-added tax. This factor, however, should not be overemphasized. While there are statutory provisions for piggybacking state and Federal income taxes, no state has chosen to do so.

VI. Summary

A value-added tax may be imposed on different tax bases, and tax liability may be calculated in various ways. Not all forms would be suitable for the United States. If the policy debate in the United States ever focuses on choosing a form of value-added tax, it should concentrate on a value-added tax with the following characteristics:

1. consumption type;
2. credit method of determining tax liability; and
3. destination principle of border tax adjustments.

As explained in Chapter 3, the tax should also have a broad base, with only minimal and well justified exclusions, and it should be imposed at a single, uniform rate.

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.

Chapter 4

ALTERNATIVE TYPES OF SALES TAXATION

I. Introduction

This chapter compares a value-added tax with alternative types of sales taxes. Sales taxes may be single stage in nature, applying to only one stage in the production or distribution process, such as the retail or manufacturing, or to all stages, such as the value-added tax. Notwithstanding its multistage character, a consumption-type value-added tax that extends through the retail level is, in effect, a tax on the final, retail sales of goods and services. Its tax base and revenue potential are equivalent to those of a single-stage retail sales tax with similar coverage and an identical tax rate. Therefore, the objective of taxing purchases of goods and services by consumers can also be accomplished with a retail sales tax. Forty-five of the states and many local governments have a retail sales tax, a single-stage tax that applies to all sales to final consumers, not just those made by retailers. Liability for the retail sales tax depends on the character of the sale, rather than on the business activity of the seller. A manufacturer, for example, may make some retail sales and a retailer may make some nonretail sales to business customers.

With a manufacturers or wholesale sales tax, a tax is applied at the manufacturing or wholesale level, respectively; that is, on the sale by the manufacturer or on the last wholesale sale (the sale to the retailer). A value-added tax that excludes the retail level would be similar to a wholesale sales tax. A personal exemption value-added tax is another form of sales tax; it is a simplified flat-rate tax that has many of the characteristics of a value-added tax, but with a personal allowance and exemptions to alleviate the regressivity of the tax. It can also be viewed as an income tax with a deduction for saving, or as a tax on consumed income.

II. Analytic Framework

These sales tax alternatives, retail, manufacturers and wholesale sales, and personal exemption value-added tax are analyzed primarily with respect to two objectives: consumption and production neutrality. A tax is neutral toward consumption if it does not cause consumers to change their buying habits, to buy more of some commodities and less of others. A tax is neutral toward production if it does not induce business firms to change their production and distribution methods. Other important similarities or differences with the value-added tax, however, will also be mentioned.

A. Consumption Neutrality

Some taxes are specifically intended to change economic behavior. For example, one justification for sumptuary excise taxes, such as

those on tobacco or alcohol, is to discourage the consumption of goods that may be associated with disease, accidents, and other social costs. But, without an accepted social justification for encouraging or discouraging certain types of consumption activity, a sales tax should not distort, or change, individual consumption behavior. On the assumption that individuals indicate the goods and services they want by the prices they are willing to pay, a sales tax should not alter the relative prices for the goods and services available to consumers. If a sales tax does change those prices by making some goods less expensive and other items more expensive, it will favor individuals with strong preferences for the lightly-taxed expenditures and penalize those preferring to buy the more heavily-taxed goods and services. Consumers, in general, will respond to the tax-distorted prices by buying more of some goods and less of others. The result is reduced consumer satisfaction and a less efficient use of the economy's resources.

To avoid distorting consumption patterns, a sales tax should constitute a uniform percentage of consumer expenditures. To achieve this, the sales tax should be the same on each dollar of expenditure. This objective is most likely to be accomplished by a tax that is levied at a uniform rate on all items of consumer expenditure.

B. Production and Distribution Neutrality

A sales tax should not cause business firms to change their methods of production or distribution. Assuming that in the absence of a tax business firms use the most efficient and least cost production techniques available, then any interference by a sales tax in those techniques would cause total output to fall. The result would be a smaller quantity of goods and services.

To prevent any distortion of production methods, the sales tax borne by a product should be the same regardless of the choice of production techniques and distribution channels. If a manufacturer, for example, can reduce its tax liability by selling directly to a retailer, rather than through a wholesaler, then direct sales to retailers will be encouraged. Or, if a firm's tax liability can be reduced by combining certain production or distribution activities, the firm will have an incentive to integrate those activities. These artificial incentives to change business practices should be avoided because they will result in less output and a less efficient use of resources.

The objective of production and distribution neutrality also requires that only consumer goods be taxed; capital goods and other inputs used in production should be excluded from the sales tax. Otherwise, in an attempt to minimize costs, firms will substitute labor for those capital goods and other business purchases that are taxed. Investment and economic growth will suffer and exports will be penalized. Some firms may even respond by producing their own inputs to minimize the tax. Taxation of capital goods and other business

purchases also distorts consumer expenditure since those goods produced with large amounts of the taxed equipment and material per dollar of output will be more heavily taxed.

III. Value-Added Tax

To establish a basis of comparison, the discussion in Chapter 3 is briefly summarized. A properly designed consumption-type value-added tax would be neutral with respect to consumption decisions and production methods. If the tax applies to most goods and services at a single rate, with only minimal exceptions for clear and justifiable social or administrative reasons, it would constitute a uniform percentage of consumer expenditure. Consumers would not be given an incentive to consume more of some goods and less of others. The credit for value-added tax paid by a firm on all items purchased for business use, including capital equipment, would ensure that the tax will be neutral with respect to production and distribution methods. Labor and capital intensive operations would be treated the same. There would be no incentive for vertical integration since combining or integrating production or distribution processes would not alter the total tax on a product.

IV. Retail Sales Tax

Like a broad-based value-added tax, a retail sales tax that exempted all production inputs, including capital goods, would be relatively neutral, with respect to both consumption and production decisions. Though it may not be an inherent defect, state experience with retail sales taxes, however, demonstrates the difficulties, at least in practice, of applying the tax to all consumer expenditures and of excluding business purchases. First, primarily to alleviate the regressivity of the tax, many states exempt food, utilities and fuel, and drugs and medicine. A few exempt clothing. In many states, only a limited group of services is subject to retail sales taxation. Chapter 8 describes the problems that arise with exemptions from the base and suggests some alternatives for reducing the burden on low income individuals.

Second, unlike a value-added tax, most states do not fully exclude capital equipment and other business purchases from the scope of the retail sales tax. While all states exclude sales for resale, including sales of goods that become physical ingredients or component parts of goods produced by the purchaser, they have more limited exclusions for fuel, industrial machinery, farm machinery and equipment, office supplies and equipment, and other business purchases that are not consumed directly in the production process. All such expenditures should be excluded if the sales tax is to avoid interfering with consumption behavior and production techniques.

There are two objectives to the proper taxation of business purchases: (1) to exclude capital goods and other business purchases from taxation, and (2) to ensure that exempt business purchases are not diverted to taxable consumption uses. The value-added tax is

generally regarded as superior to the retail sales tax in achieving the first of these objectives. The value-added tax provides an automatic mechanism for excluding business purchases, as the buyer is allowed a credit for any value-added tax paid on those purchases.

A retail sales tax, in contrast, effects the exemption with two approaches. First, registered firms are allowed to make purchases for resale tax free. Normally, the buyer presents the seller with an exemption certificate, which authorizes the buyer to purchase free of tax, provided the purchases are for resale. This system frees business purchases from tax, but its scope is rather limited; only those items to be resold, or which become ingredients or parts of goods produced for sale may be purchased tax free on this basis. Secondly, fuel, equipment, machinery, and supplies, generally not covered in the purchases for resale category, are freed of tax only if they are specifically exempted in the state statute, and even then exemption certificates are often required. This system does not fully exempt business purchases from the retail sales tax. In practice, most states make no serious effort to exclude all purchases for business purposes from their retail sales taxes. About 20 percent of state retail sales tax revenue comes from taxing producers goods. One consequence of this is that U.S. exports bear some state retail sales tax.

Under either a value-added or retail sales tax, the problem of ensuring that exempt purchases are not diverted to consumption uses arises. From a policy perspective, neither tax is the clear favorite in solving this problem. In the case of the value-added tax, the revenue authorities need only check that the business purchases for which a tax credit is claimed were actually used in the business. With the retail sales tax, the check begins with the seller. Once it is determined that a sale was made on an exempt basis and that the seller has an exemption certificate, it is necessary to confirm that the buyer used the items purchased for exempt business purposes. With either a retail sales or value-added tax, it is necessary to analyze the buying firm's sales and purchase information to verify that a reasonable relation exists between its sales and purchases.

Like a value-added tax, a retail sales tax would be regressive and the destination principle of border tax adjustment would apply. The number of firms involved in the administration and enforcement of a retail sales tax would be somewhat smaller, perhaps 10 percent smaller than with a value-added tax. The reason the difference is not greater is because a retail sales tax is not confined exclusively to retailers. Nonretail firms making retail sales must also register for the tax. Moreover, even firms making tax-free purchases, and no retail sales, must be checked by auditors to verify that the purchases were for exempt uses. Because of experience at the state level, a retail sales tax would be more familiar to both consumers and firms than would a value-added tax. As noted in Chapters 2 and 3, it would be easier to piggyback state retail sales taxes on a Federal retail sales tax than on a value-added tax. Either tax, retail sales or value-added, would be viewed by state and local government officials as

encroaching on the fiscal territory of the states and would be criticized as such, though the value-added tax might be more acceptable because of its cosmetic differences.

V. Manufacturers and Other Pre-retail Taxes

Compared to a retail sales tax or value-added tax through the retail level, a pre-retail tax, levied on either the sale by the manufacturer or the last wholesale sale (the sale to the retailer), would apply to a smaller number of taxpayers. Either a manufacturers or wholesale tax would exclude the retail sector, which contains a large number of firms, some of them small. Developing countries view non-retail taxes as attractive since the number of taxpayers needs to be kept to a manageable size for administration and enforcement purposes. Moreover, recordkeeping is often not adequate to apply a sales tax to the numerous small firms at the retail level in developing countries. Neither of these reasons has any relevance for the United States. State experience with retail sales taxes has persuasively demonstrated the feasibility of a retail level tax in the United States.

Unlike a retail sales or value-added tax, either a manufacturers or wholesale tax would create severe economic distortions; neither would be neutral with respect to consumption choices or production methods. Combined wholesale and retail trade margins vary widely among products. Because the amount of value that is added to a product after the manufacturing sale is not uniform for all products, a manufacturers tax would not constitute a uniform percentage of consumer expenditure. Products with the bulk of their value added after the manufacturing sale would bear less tax relative to consumer expenditures than products with low wholesale and retail trade margins. Services would probably be excluded from either a manufacturers or wholesale tax because they are inherently retail activities. (The concept of trade margins is not readily applicable to a service activity.) Consumers would respond to the varying tax burdens by buying more of the lightly-taxed items and less of the heavily-taxed items. Thus, both consumer satisfaction and tax revenue at a given tax rate would be reduced. This potential for changing economic behavior would be magnified by the fact that, because of the reduced base, the tax rates necessary to raise an equivalent amount of revenue would be higher than for the retail sales tax. To the extent that "necessities" are low margin goods and "luxuries" high margin, the regressivity of the tax would be aggravated.

Distortions would also occur in production and distribution methods. Both a manufacturers and wholesale tax create incentives to restructure business operations in order to minimize tax liability, basically by transferring functions and costs forward beyond the point of impact of the tax. Less efficient production and distribution methods, combined with higher rates to generate an equivalent amount of revenue, are certain consequences. For example, in the case of a manufacturers tax, distribution and advertising activities may be shifted to affiliated entities beyond the manufacturing sector, and firms not willing or able to do this will be discriminated against.

Any effort to prevent this by requiring consolidated returns from affiliated firms or by not considering certain activities to be part of the tax base when carried on by the manufacturer is likely to cause serious administrative problems. A similar shifting of functions would occur with the wholesale tax, and large retailers who buy directly from manufacturers at low prices would be favored over small retailers buying from wholesalers.

A major problem, particularly with a manufacturers tax, is the valuation of the manufacturers sale for the purpose of applying the tax. Some manufacturers control their own wholesale and even retail outlets. This may be done for sound business reasons, such as the desire to provide a uniform level of customer service. One example of this practice would be a petroleum company integrated from the oil field to the service station fuel pump.

In the case where the manufacturing and distribution activities are under common ownership, rules must be specified for determining the value of the product to which the manufacturers tax will apply. Because the manufacturer has an incentive to understate the price (to minimize liability for the manufacturers tax), the price set by the manufacturer cannot be accepted for the purpose of determining the manufacturer's tax liability without careful scrutiny by tax administrators. This "transfer pricing" problem is a frequent occurrence in international transactions where countries are concerned about receiving their proper share of tax revenue from international businesses. Ideally, one would want to know the price at which the product would sell if the manufacturer and distributor were not related, that is, if they were dealing as independent entities operating at "arm's length." But, it may be impossible to know this if the manufacturer is not making similar sales to independent or uncontrolled distributors. In determining liability with a manufacturers tax, average margins may be added to costs or subtracted from the retail sales price, but they will only approximate the correct result and the margins will be different for different goods, thus complicating the administration of the tax. This problem is avoided under a retail sales or retail level value-added tax. The problem of determining the correct taxable value of a product also exists with a wholesale tax, but is less acute since fewer wholesalers own retail distribution networks than manufacturers own wholesale distribution outlets.

Canadian experience with the manufacturers tax has shown that a government is almost certain to allow some type of downward adjustment in the sale price for tax purposes when manufacturers are integrated forward and sell to retailers at prices higher than their competitors charge wholesalers; again the result is substantial operational complications. For this and other reasons, Canada is considering replacing its manufacturers tax with a value-added tax.

Under either a manufacturers or wholesale tax it is difficult to treat imports the same as domestically-produced goods. Merely applying the tax to the tariff-inclusive value of imports is not sufficient; the imported value will not necessarily be on the same basis as

the value at which the manufacturers or wholesale tax would apply to a domestic good. If advertising expenditures, for example, are typically part of the manufacturers or wholesale tax base, applying the same tax rate to the import value, which presumably does not include any domestic advertising activity, would tax imports less heavily than domestic goods. Alternatively, imports would be taxed more heavily than domestic goods under a manufacturers tax if costs of some post-manufacturing or wholesale activity were incurred prior to importation.

While any expected change in a sales tax will cause purchases to be either accelerated or deferred, a manufacturers tax creates a special type of problem. By its very nature, with a manufacturers tax, the inventories of wholesalers and retailers will have been subject to tax. If wholesalers and retailers expect the tax to rise, they will accelerate their purchases from the manufacturer to acquire additional inventory at the lower tax rate. Or, if a tax reduction is anticipated, they will allow their inventories to be depleted so that new inventory can be bought at the lower tax rate. In effect, firms will try to either increase the profits or reduce the losses associated with the tax change. This disruption in buying patterns can be avoided, but only if inventories are subject to a tax adjustment when the rate of tax changes. The Federal Government does this for its manufacturers excise taxes through floor stocks taxes or refunds, designed to place inventories and new purchases on an equal tax footing. The problem can be solved, but a specific procedure, involving added complexity, must be designed. It is not automatic as with a retail sales or value-added tax extending through the retail level.

All of these difficulties with the manufacturers and wholesale taxes would be encountered equally with a value-added tax that excluded the wholesale and/or retail sectors.

VI. Personal Exemption Value-Added Tax

The personal exemption value-added tax is a flat rate tax in which investment purchases are expensed (deducted in full in the year they are made). It can be viewed as a flat rate tax on consumption or as a consumption-type value-added tax with personal exemptions.

Under the personal exemption value-added tax, a flat-rate tax would be levied on both personal and business income. In the case of individuals, taxable income consists entirely of wages, salaries, and pensions. The tax on labor income would be withheld by the employer, as with the present wage withholding under the income tax. Interest, dividends and fringe benefits would be taxed at the business, but not the individual, level by not allowing these payments as tax deductions. A personal allowance and exemptions for dependents would eliminate the tax liability on limited amounts of labor income and thus lessen the burden of the tax. Since capital income would be taxed at the business level through the disallowance of business deductions, rather than through direct attribution to households, the

personal allowance and exemptions would not reduce personal tax liability on non-labor income. Thus, the personal exemption value-added tax would not alleviate the burden of the tax for those not receiving wages, salaries, and pension income.

The business tax portion of the personal exemption value-added tax would be levied at the same flat rate as applied to individuals on all business entities, regardless of legal form, proprietorship, partnership, or corporation. In calculating taxable business income, only three categories of expenditures would be allowed as deductions: (1) wages, salaries, and pensions to employees; (2) purchases of goods, services, and materials from other firms; and (3) expenditures for capital equipment, structures, and land. The full and immediate deduction for purchases of capital equipment defines the tax base as equal to consumption. No deductions would be allowed for interest payments, dividends, royalties, state and local taxes, or fringe benefits. Given the common flat rate on all business and individual income, disallowing business deductions for these items is equivalent to taxing the owners of the business at the individual level. This is why, for example, interest and dividends are not explicitly taxed at the individual level.

The personal exemption value-added tax can be viewed as a subtraction method value-added tax in which employees are "in the system." That is, employees are treated the same as other taxpayers are treated under a conventional value-added tax, except that employees are allowed no deductions for purchases. Labor is subject to tax on its "sales" of labor to business firms in excess of the personal allowance and exemptions. Business firms pay tax on the difference between their sales and purchased inputs, including labor. In the absence of the personal allowance and exemptions, the withholding tax collected by the employer would exactly offset the deduction taken by the employer on wages.

Individuals may respond differently to the personal exemption value-added tax tax than they would to a conventional consumption-type value-added tax. Though both taxes have a consumption base, they achieve this result in fundamentally different ways. With the typical value-added tax, individuals pay a tax only if they consume; they avoid, or at least postpone, the tax as long as they save. Both labor and capital income, however, are subject to value-added tax once they are used for consumption purposes. Under the personal exemption value-added tax, in contrast, the tax liability of individuals on their labor income is not affected by the decision to consume or save; all labor income is taxed when earned, regardless of whether it is consumed or saved. Unlike a sales or conventional value-added tax, the tax burden on individuals would not be reduced by saving rather than consuming income earned as wages and salaries. Interest, dividends, and other forms of capital income, however, are not taxed at the individual level under the personal exemption value-added tax even if they are used for consumption purposes.

While the conventional and personal exemption value-added taxes are economically equivalent, the question is whether individuals would respond differently to these alternative ways of implementing a consumption tax. Would they, for example, be more likely to save if there is no tax on the act of saving itself than if there is no tax on the income from saving? In the first instance, the exemption for saving is implemented through the use of income, in the latter case through the source of income.

The personal exemption value-added tax differs from value-added taxes commonly in use in another important respect. The tax would not be collected on imports and it would not be rebated on exports. Thus it would be levied on the origin, rather than the destination, basis.

Because of the personal allowance and exemptions, the personal exemption value-added tax offers a way of directly lessening the burden of the value-added tax on low-income families and individuals without resorting to multiple rates. As the discussion in Chapters 2 and 3 notes, the preferred type of value-added tax would have the following characteristics:

1. deductibility of capital purchases (consumption type);
2. broad base;
3. uniform rate;
4. credit method; and
5. destination principle of border tax adjustments.

As proposed, the personal exemption value-added tax satisfies requirements 1, 2, and 3. Can it be modified to be a credit method, destination principle tax?

The personal exemption value-added tax plan could be converted to a credit-based tax by simply deducting tax on inputs from tax on sales. Since workers are treated as "selling" labor, the employing firm would be allowed a credit for the tax on wages. To preserve the personal allowance and exemptions in the credit framework, it would be necessary to allow credit against the business tax for an amount equal to the tax that was not imposed on labor income because of the personal allowance and exemptions, as well as for the tax actually withheld on labor income.

Once the tax had been adopted to the credit method, it would be relatively straight forward to implement the destination principle. There may be some question whether other countries would view a value-added tax structured along these lines as being eligible for destination principle border tax adjustments under the General Agreement on Tariffs and Trade (GATT). The personal allowances and exemptions add an element of personal or direct taxation that might render the tax vulnerable to attack under the GATT. (Recall that a direct tax such as an income tax, is not eligible for export rebates or compensatory import taxes under the GATT.) The strongest argument for GATT legality would probably be that the personal exemption value-added tax incorporates, in a single tax, both revenue and expenditure features.

The personal allowance and exemptions, that is, can be viewed as a form of expenditure program designed to alleviate the regressivity of the value-added tax. They could, for example, be said to be similar to other countries' family allowances funded from value-added tax revenues. Alternatively, it could be argued that the combination of a value-added tax and refundable income tax credits would clearly be GATT legal. The personal exemption value-added tax can be used to achieve exactly the same objective, but in one framework, rather than two.

The personal exemption value-added tax would probably have less immediate effect on prices than would a conventional value-added tax. If it were viewed as an income tax, it may not affect prices directly. If the credit method were used to implement the tax, it would more closely resemble a conventional sales or value-added tax and might have a similar effect on prices. As with any sales tax, a rise in the price level would require an accommodating monetary policy.

VII. Summary

The only two types of sales taxes that should be considered for the United States are a retail sales tax and a value-added tax extending through the retail level. Pre-retail taxes, such as manufacturers or wholesale sales taxes, should be rejected since they would distort consumption behavior and production decisions and techniques, as well as give rise to difficult tax administration and compliance problems. A personal exemption value-added tax would only lessen the burden of the tax on those receiving wage or pension income, not on those receiving only capital income or who are unemployed. Though they are economically equivalent in their purest form, there are administrative differences between the retail sales tax and value-added tax that tend to favor the value-added tax. In particular, a value-added tax may be superior to a retail sales tax in freeing capital goods and other business purchases from taxation.

Chapter 5

MAJOR DESIGN ISSUES

I. Introduction

Before a value-added tax could be implemented, a number of basic decisions must be made about the structure of the tax. The most important issues, to be considered in this chapter, include: the distinction between zero rating and exemption; the alternatives for reducing the absolute burden on the poor and regressivity; the choice between single or multiple rates of tax; and the tax treatment of exports and imports. Nearly two decades of European experience with the value-added tax have shown these to be the most important design issues. These issues are discussed in the context of a consumption value-added tax extending through the retail level with tax liability determined under the credit method. Other issues, such as the treatment of small businesses, are considered in Chapter 6.

II. Zero Rating versus Exemption

Under a value-added tax, commodities, transactions, or firms can receive preferential treatment in two different ways, by zero rating or exemption. Under zero rating, all value-added tax is removed from the zero rated good, activity, or firm. In contrast, exemption only removes the value-added tax at the exempt stage, and it will actually increase, rather than reduce, the total taxes paid by the exempt firm's business or non-retail customers. It is for this reason that a sharp distinction must be made between zero rating and exemption in designing a value-added tax.

A. Commodities

If a commodity or service is zero rated, no tax applies to its sale and the seller of the zero-rated item receives a credit for the tax paid on the purchase of materials and other inputs used to produce it. By this procedure, the zero-rated commodity is freed of all value-added tax; the user bears no tax with respect to a zero-rated good or service. By contrast, if a commodity is exempted, the sale is not subject to tax, but the seller receives no credit for tax paid on the purchase of materials and other inputs used to produce the exempt item. Users of the exempt item will thus bear some tax.

If a commodity, for example, is exempt only at the retail level, then only the retail level is freed of value-added tax. Although the retailer would not charge value-added tax on its sale, the retailer would not be entitled to a credit for tax paid on the purchase of an exempt item. Thus, exemption of a commodity through all of its production and distribution channels would be necessary to free it of its

entire value-added tax burden. But, with zero rating, unlike exemption, only the final sale of the commodity needs to be zero rated, since any tax previously paid would be credited on the last sale.

B. Transactions

If a particular type of transaction, for example exports, is zero rated, the seller (the exporter) would not be subject to tax and would receive a credit for tax paid on the purchase of the goods and other purchased inputs. This procedure frees the zero-rated transaction of all value-added tax. If the transaction is exempted, rather than zero-rated, the sale itself would not be subject to value-added tax, but the exporter would not receive a credit for tax paid on the purchase of the exported good or other inputs used in its production.

C. Firms

Particular sets of firms, as distinct from commodities or transactions, may be either zero rated or exempted. If banks, for example, are zero rated, they would be registered and would be required to file value-added tax returns, but there would be no tax on the banking and financial services they provide. The banks would receive a credit (and file returns to obtain the refund) for tax paid on purchases of materials, equipment, and other inputs. If banks, however, are exempted, the value added by their activities would not be subject to value-added tax, but they would receive no credit for tax paid on their purchases. Exempt firms would not be registered and would not be required to file value-added tax returns. The difference between zero-rating and exemption can also be illustrated in the case of urban transit service. If urban transit service is zero rated, no tax would be charged on the transit service fares, and the transit system would receive credit (or refund) for the value-added tax paid on its purchases of equipment, motor fuel, supplies, electricity, and any other business-use items. But if transit service is exempt, the system providing the service would not apply tax on the fares received and it would not receive a credit or refund for tax paid on its various purchases.

In summary, firms that are zero rated, that are engaged in zero-rated transactions, or that sell zero-rated goods, are "in the system"; they must be registered to obtain credits or refunds for the value-added tax paid on their purchases. Exempt firms and those selling solely exempt goods or engaging in only exempt transactions are not registered and are not required to file a value-added tax return; they are "outside the system". Firms making both exempt and taxable (or zero-rated sales), or engaged in both exempt and taxable (or zero-rated) transactions, must be registered, but they receive credit only for the value-added tax paid on materials and other inputs used in the production of taxable or zero-rated goods.

D. *Consequences of Zero Rating or Exemption*

In the case of an exempt firm selling to a final consumer, exemption, compared to full taxation, provides a clear benefit in the form of reduced taxation. This is because the value added by the exempt firm is not taxed and the ultimate consumer pays only the value-added tax incurred by the exempt firm on its purchases from other firms. If the exempt firm, however, sells to a registered taxpayer, exemption can result in more taxation than would prevail under full taxation of the exempt firm's sales. This is because the registered firm will be bearing the tax incurred by the exempt firm on the purchases made by the exempt firm. But when the registered firm, in turn, sells to a final consumer, no credit will be allowed for the taxes paid on the purchases by the exempt firm. In effect, those purchases will be taxed a second time, thereby taxing the final sale more heavily than it would be taxed under full value-added taxation.

As an illustration, consider the situation when tax relief to farmers takes the form of exemption rather than zero rating. Value-added tax would apply to the sales of fertilizer, supplies, tools, and other items to the farmers, but the farmers would not receive a credit for this tax. Thus, it would be borne by firms purchasing from the farm sector. When these firms sell goods with agricultural content, they would pay tax on the value added both by themselves and by the exempt farmers, but with no credit for tax paid on farm inputs; the apparent relief provided by the exemption for farmers is converted into an additional element of tax on farm products. Zero rating of farmers would avoid this problem, but this would require all farmers to be registered for value-added tax purposes. The avoidance of this registration requirement is one reason for exempting farmers. The same type of problem would arise if small firms are exempt and make sales to registered firms.

The choice between zero rating and exemption should be made on the basis of two principal considerations: (1) Is it desirable to free the users of the good or service completely from value-added tax, or only partially? (2) Is it desirable to exclude certain firms from the requirement to register and file returns? Even from the standpoint of the firms themselves, there are conflicting considerations. Zero rating frees a firm and its customers completely from value-added tax, but the zero-rated firm must register and file a tax return. If a firm is exempt, it is not required to register and file a return, but the customers of an exempt firm bear the tax incurred by the exempt firm on its purchases. This may be particularly objectionable to the exempt firm's business customers who cannot receive credit for this tax. In this instance, exemption would place the exempt firm at a competitive disadvantage.

One further advantage of zero rating is that it avoids the complications that would arise if a firm handles both taxable and exempt commodities. With zero rating, such a firm receives credit for tax paid on all its purchases, whether for production or distribution of zero rated or of taxable goods. But if some goods are exempted, then

the firm selling the exempt items is entitled to a credit only for the tax on those purchases of materials and other inputs that are used to produce taxable (or zero-rated) goods. It does not receive a credit for tax paid on purchases related to the exempt transactions.

Handling both exempt and taxable (or zero-rated) goods involves major compliance and administrative problems. The task of keeping the various purchases segregated according to whether they are used for taxable or exempt products is a difficult one. Capital goods, for example, may be used for the production or handling of both taxable and exempt goods; allocation of the tax paid on the purchases of these capital goods would be troublesome, particularly since the relative use in the production of the taxable and exempt goods would not be known in the period in which the capital goods were purchased and the tax credit would be available.

Thus, in general, zero rating is superior to exemption of commodities and services and of transactions, such as exports. Exemption is desirable only for those firms which the government does not wish to register, for administrative or other reasons, and/or does not seek to remove all the value-added tax from their customers. Farmers, small service establishments, sidewalk vendors, and charitable and religious organizations are possible examples of firms for whom exemption may be appropriate.

E. Tax Credit versus Subtraction Method

If, instead of the credit method, the subtraction method were used for determining a firm's tax liability, there would be no zero rating and exemption would apply only to the particular level of activity that is being exempted. Thus, to eliminate the value-added tax on food, it would be necessary to exempt the sale of food by all firms, manufacturers, wholesale distributors, and retailers. With the tax credit method, the final sale is the crucial one; application of a zero rate would remove all cumulated tax from food, making it unnecessary to exclude sales at earlier stages. With the subtraction method, it would not be possible to totally eliminate the value-added tax on food simply by not taxing the final sale; exemption of the final sale would not eliminate the value-added tax that had been paid prior to the retail sale. Eliminating all of the value-added tax on food would require the exemption of all pre-retail transactions. But exempting fertilizer, for example, would also have the unintended result of eliminating some of the value-added tax on sales of non-food items such as fibers.

The subtraction method avoids the cumulative tax problem of breaking a link in the tax and credit chain. Such breaks, however, may be rare with the tax credit method because exempt firms are placed at a disadvantage in selling to registered firms since those firms would then not be able to take credit for tax entering into the prices of their purchases. With the subtraction method, however, exemption would clearly be desirable and thus the political pressure to obtain exemption would be great.

III. The Issue of Regressivity

The most frequent objection to a value-added tax, or any form of general sales tax, is that it would be unfair to lower income individuals and families. There are two aspects to this equity argument: the absolute burden of the tax on the lowest income groups, and the regressivity of the tax or the relatively higher burden of tax as a percentage of income at the lower income levels than at the higher. If the value-added tax applies at a uniform rate to all consumer purchases, a substantial amount of tax would be borne by persons below the poverty levels. The tax would be regressive because the percentage of income used for consumption purposes declines, on the average, as income increases. Of these two equity issues, the absolute burden on the poor is the more serious, since the regressivity of the value-added tax can be offset, if necessary, by adjusting the progressivity of the income tax rates.

Four alternatives exist for reducing the burden of the tax on the lower income individuals and families and to lessening the regressivity of the tax. These are summarized here, and evaluated in Chapter 8.

A. Adjustment of Government Transfer Payments

Some government transfer payments, such as social security, are intended to reflect increases in the price level. Thus, the effect of the value-added tax on prices would be automatically offset by increased payments for those transfers that are indexed to reflect changes in the cost of living. Not all low income individuals and families, however, receive transfer payments; and many with income substantially above the poverty level do receive transfer payments. Therefore, the indexing of transfer payments would not completely alleviate the burden of the tax on low income families and individuals.

B. Zero Rating of Food and Other Necessities

In lieu of indexing transfer payments, it would be possible to remove the tax from certain goods and services. Since food expenditures constitute a higher percentage of income in the lower income levels than in the higher, and since expenditures of lower income groups are heavily concentrated on food purchases, zero rating of food would materially reduce the burden of the tax on the poor, though not eliminate it, and would make the tax less regressive. Twenty-seven of the states exempt food purchases from the retail sales tax and one state applies a reduced rate to food purchases. There are, however, a number of objections to excluding food and other necessities from the value-added tax, including unnecessary revenue losses and compliance and administrative problems; these are considered in Chapter 8.

C. Provision of a Refundable Credit

Another alternative, used by several states, is to provide a credit against the income tax for a dollar amount which represents the value-added tax paid on the consumption of goods and services necessary to maintain a minimum standard of living. The objective is to eliminate the value-added tax from an essential or necessary level of consumption. If the available credit exceeded one's income tax liability, it would be refunded in cash, as is done now with the earned income tax credit. While this system would avoid many of the objections to zero rating of food and other necessities, as well as be less costly, it could be interpreted as a basic change in the country's social welfare program.

D. Personal Exemption Value-Added Tax

The fourth method for addressing the problems of regressivity is the personal exemption value-added tax. Under this approach, workers would be considered to be selling their labor services to their employers. A value-added tax would apply to their wages and would be withheld by the employer. But workers would be exempt from value-added tax on a specified amount of wages, designed to reflect a minimum or poverty level of income. The firm, in calculating its value added for tax purposes, would be allowed to deduct its wage payments, as well as its purchases of raw materials, capital goods, and other items purchased for business use from other firms. If the personal allowance and exemptions were available only with regard to labor income, this alternative would not lessen the burden of the tax on those low income individuals and families not receiving labor income, such as the unemployed.

IV. Single versus Multiple Rates

Apart from exports, which always would be zero rated, a single rate of value-added tax would greatly facilitate compliance with and administration of the tax and would avoid the loss in economic efficiency from changes in consumer buying decisions caused by tax-induced distortions in relative prices. In practice, however, most value-added taxes, in the European Economic Community (EEC) have more than one non-zero rate of tax. Currently, all EEC countries have two or more rates of tax, with Italy having eight separate tax rates. The United Kingdom has 2 rates of tax, 15 percent and zero. In addition to a standard rate, Belgium, France, Ireland, and Italy have one or more "luxury" rates that apply to such commodities as automobiles, jewelry, furs, television sets, and cosmetics. Belgium, Denmark, France, Germany, Ireland, Italy, Luxembourg, and the Netherlands each has a reduced rate which is applied to articles regarded as semi-necessities. Belgium, Denmark, Ireland, Italy, the Netherlands, and the United Kingdom apply a zero rate to basic necessities, such as food and medicine. The objective of the multiple rates is to make the value-added tax less regresssive.

There are a number of problems, however, with multiple rate of tax. Though zero rating of food eliminates the value-added tax on food purchases, it does so for everyone regardless of their income. Thus, in light of its basic objective of lessening the burden of the tax on lower income groups, it is very expensive in terms of revenue foregone. With, multiple rates, because firms must apply the correct tax rate to each sale, interpretative questions arise about the appropriate rate class, and audit issues become much more difficult to resolve. This creates difficulties for both taxpayers and tax administrators. The classification of commodities for each rate group is virtually never based on scientific studies of consumer buying patterns, but simply on conventional views as to what constitutes a "luxury" and a "necessity." Even if it were possible to specify a structure of tax rates that would make a value-added tax less regressive, or even proportional, it is doubtful whether it would be good policy to adopt that rate structure. Whatever the desired degree of progressivity in the Federal tax system, it can be achieved through the structure of income tax rates, rather than by imposing high value-added tax rates on luxuries. The important equity objective in designing a value-added tax is to avoid the tax burden on the poor; some regressivity at higher income levels is a much less serious matter.

If a single rate of value-added tax is politically unacceptable, the only other rate should be zero. It should be applied to necessities such as food and medicine, assuming other alternatives for removing the burden of the tax from the poor are not feasible. If zero rates are used, there is little need for, and much complexity created by, the use of reduced "semi-necessity" and increased "luxury" rates of tax.

V. Foreign Transactions

In the Common Market countries, as explained in Chapters 2 and 3, exports and imports are taxed on the destination principle; goods traded internationally, that is, are taxed in the country of destination, or where they are consumed, rather than in the country of origin, or where they are produced. Thus, goods made in France and shipped to Germany are freed of tax under the French value-added tax since they are zero rated when exported, but they are subject to the German tax when imported. This procedure is followed because of the border tax adjustments that allow goods to be exported tax free and for the value-added tax to be imposed on imports.

With the credit method, the border tax adjustments to implement the destination principle are straight forward: exports are zero rated and imports are taxed. Since the tax credit at the final stage includes taxes paid at all earlier stages, the government can ensure that all goods sold abroad are shipped free of tax by simply zero rating exports. In the importing or destination country, the goods arrive tax free and are subject to tax at importation and on subsequent sales in that country. Because the destination principle is the

accepted international practice and because it allows imports and domestically-produced goods to compete on an equal tax basis, it would undoubtedly be followed by the United States.

As noted in Chapter 2, if the exporting country administers its value-added tax through the subtraction method, it is not possible to ensure that its exports will leave the country exactly tax free. Under the subtraction method, the value-added tax paid at each of the previous stages would be calculated and rebated. But if there is more than one rate of value-added tax, or if certain stages are exempt from the value-added tax, it is not possible to compute accurately the actual amount of value-added tax that should be rebated when goods leave the country. Similarly, it is impossible to know what tax to impose on imports to exactly equal tax paid under the subtraction method on comparable goods produced domestically. While in theory the subtraction method is simple, in reality multiple rates and exemptions make its operation very complex, if exports are to be completely free of tax and imports are not to be treated differently from domestic goods. Not only sales, but also purchases must be classified according to the various tax rates in order to calculate the value-added tax rebates to be given on exports and compensating taxes to be levied on imports.

The EEC countries hope ultimately to apply the tax on an origin basis on trade within the EEC. The objective is to avoid making border adjustments on intra-EEC trade, just as the United States would allow goods to cross from one state into another without adjusting for a Federal value-added tax. Under this approach, continuing the example above, French value-added tax would apply to the value added within France, and there would be no refund of French tax at export to Germany; Germany would apply its value-added tax to domestic sales, giving appropriate credit to the value-added tax paid to France to ensure the taxation of only the value added created within Germany. Thus, application of the German tax on imports from France to Germany would not be necessary. But much greater uniformity in value-added tax rates, coverage, and other features are necessary before this change to the origin principle can be implemented.

Chapter 6

IMPLEMENTING A VALUE-ADDED TAX IN CERTAIN INDUSTRIES AND ACTIVITIES

I. Introduction

A basic characteristic of a value-added tax is that it functions most effectively if it is applied uniformly throughout the entire economy. Yet this may not be possible with some forms of activity. The application of a value-added tax to the typical manufacturing, wholesale, and retailing business is conceptually clear cut, although some questions may arise about incidental issues, such as fringe benefits to employees. In the case of other types of economic activity, however, such as banking or farming, or with other organizations, such as governmental or nonprofit entities, a value-added tax encounters difficult questions of principle and of implementation. These issues are discussed in this chapter in the context of a consumption-type value-added tax with tax liability determined under the credit method.

II. Taxation of Services

A value-added tax is designed to be a general consumption levy on all consumer expenditures. Accordingly, expenditures by consumers on services, as well as those on commodities, should be subject to tax. The failure to tax expenditures on services would favor those persons with relatively strong preferences for services, distort consumption away from commodities and toward services, and substantially reduce the tax revenue available at a given tax rate. Moreover, the taxation of all expenditures on consumer services would make the value-added tax less regressive. Many, but not all, services are covered under the European value-added taxes; most states, however, tax only a limited range of consumer services under their retail sales taxes. Only Hawaii, New Mexico, and South Dakota include most services in the bases of their retail sales taxes.

One major advantage of the value-added tax over the retail sales tax with regard to services is the ability to exclude from tax services rendered to business firms through the tax and credit mechanism; services provided to businesses are subject to value-added tax, but the business purchasing the services may credit this tax against the value-added tax due on its sales. In effect, this tax and credit procedure frees services provided to business customers from the value-added tax until they are reflected in the retail sale of a good or service. State retail sales taxes do not routinely exclude all services provided to businesses. If these services are taxed, business firms are given an incentive to provide the services with their own employees, rather than to obtain them from firms that specialize in providing services.

In considering the value-added taxation of services, various problems are encountered which make it doubtful that the value-added tax could be comprehensively applied to all services. For one thing, the control of service establishments for tax purposes is generally more difficult than the control of those selling commodities because the relationship between purchases of produced goods and sales is relatively weak. Accordingly, it is more difficult to ascertain the correct sales volume of service establishments by reference to their purchases. Because many service establishments are relatively small, the control function of tax administrators is both difficult and time consuming.

A. Services Clearly Suitable for Taxation

Several groups of services provided to consumers are clearly suitable for inclusion within the scope of a value-added tax:

1. Public utility services, such as electricity, gas, telephone, telex, cable, and probably water service. These services are provided by large firms or governmental units that are easy to control. There is no inherent objection to taxing these services, though some questions may be raised about value-added taxation of water because of its "necessary" aspect. If food is zero rated, water probably should be as well.

2. Services rendered by commercial establishments, many of which also sell commodities. Thus, repair services, such as for motor vehicles, fabrication activities of all types, barber and beauty parlor services, and laundry and dry cleaning services, would all be taxed. Including these services in the value-added tax would facilitate administration and compliance, since these firms would not need to segregate their sales of commodities from their providing of services, as they now must do under most state retail sales taxes.

3. Amusement and entertainment services of all forms, including social, golf, health, and racquet clubs.

4. Hotels, motels, other transient accommodations, and restaurant meals. If residential housing rentals are not taxed, a somewhat arbitrary line must be drawn between personal housing and transient rental accommodations, probably based on the length of stay.

5. Rental of taxable durable commodities, such as motor vehicles, video tapes, tools, and appliances. The rental firms would pay tax on its purchases of these goods and receive credit for the tax against the tax charged on the rentals.

6. Bookkeeping, accounting, legal, consulting, engineering, architectural, and related services. As with other services, business firms acquiring these services would receive credit for tax paid on the services against tax due on their sales.

B. Financial Services

Under the income tax, taxation of financial institutions presents complex and troublesome issues for both the government and the institutions; the problems involved in the tax treatment of financial activities under the value-added tax are also formidable.

On the one hand, value added in banking, thrift, and insurance activities is no less appropriate for inclusion in the value-added tax base than value added in, say, manufacturing. As explained in the previous chapter, there also are good reasons why both financial institutions and their business customers may favor the full inclusion of financial institutions in the value-added tax system. Nevertheless, the practical problems of taxing financial services have led all European Economic Community (EEC) countries to exempt the basic lending activities of banking, insurance, and related financial establishments from the value-added tax.

1. Banking and related institutions. In the manufacture and distribution of commodities and many other services, identifying "value added" is a relatively straightforward exercise. Particular problems, however, arise with respect to banks, savings and loan associations, and similar institutions.

Banks, in their basic or core activities, are essentially "renters" of money. They "rent" from their depositors, to whom they pay interest (or provide free checking accounts), they (at least the commercial banks) "create" money through credit expansion, and they "rent out" money to borrowers, for which they receive interest, either directly or through the purchase of securities. The value added by banks and other financial institutions is basically the difference between what the banks pay their depositors and the amount received from their loans and investments. If their depositors were solely business firms already registered for the value-added tax, the banks could be charged tax on interest paid to these depositors; the banks, in turn, would apply the value-added tax to their "sales", that is, to the interest received on their loans, and receive credit for the tax paid to their "suppliers" or depositors. In this case, there would be little difference from the way the value-added tax applies to manufacturers or distributors.

There are, however, several complicating factors.

Many of the banks' depositors are not business firms but individuals with savings or time deposit accounts. Since these non-business depositors would not be registered taxpayers, the banks would not be charged value-added tax on the interest paid to non-business depositors. To require the business depositors to charge and remit value-added tax when individual depositors did not could easily create confusion for the bank and the various classes of of depositors. An individual, for example, would be treated differently depending on whether the deposit account was for "business" or "private" purposes.

Furthermore, the banks' depositors often do not receive a market rate of interest, but various bank services instead, such as checking accounts.

In general, therefore, it would not be desirable to attempt to apply the value-added tax to depositors in financial institutions. As a consequence, banks would have no value-added tax on interest paid on their deposits to credit against the value-added tax due on the interest they would charge on their loans. In itself, this is not a serious matter; the banks would simply be remitting value-added tax on the value added both by themselves and their depositors. Thus, one general alternative for the treatment of banks and similar institutions would be to apply value-added tax to the interest they charge their borrowers on new loans. (To apply value-added tax to existing loans would cause the banks to suffer windfall losses.) Various questions can be raised, however, about doing so. They may be considered in reference to the major classes of borrowers.

(a) Business borrowers. A substantial portion of bank lending is to business firms, who would be charged value-added tax on the interest paid to the bank. These business firms, if they are registered taxpayers, would receive credit for the value-added tax paid to the bank against the tax due on their sales. It would not be necessary to require banks to charge value-added tax on interest received with respect to the bank's holdings of corporate bonds. The corporation which issued the bond would not pay tax on its interest payments; nor would it receive any credit for tax not paid.

(b) Farmers. Under a proposal made in another section to this chapter, farmers would not be registered for the value-added tax. If farmers were not registered taxpayers, they could not obtain credit for any value-added tax paid on interest charged on their borrowing. To avoid any cascading of value-added tax, it would be necessary to eliminate the tax on the farmers' "purchases." Accordingly, just as the purchases by farmers of feed, seed, fertilizer, and farm machinery would be free of value-added tax, interest paid by farmers on the money which they borrow should be excluded from the tax.

(c) Governments. Most, but not all, of the lending to governments occurs through the purchase of long and short term debt securities. The question is whether value-added tax should be charged on the interest paid on government bonds. Ideally, one could argue that tax should be charged so that government and private borrowers pay similar costs. Charging value-added tax on private, but not government, borrowing may be viewed as subsidizing government borrowing. State and local governments, however, may object to the imposition of a Federal value-added tax on their borrowing costs as a revenue transfer from sub-Federal governmental units to the Federal government. Thus, there may be pressure to exclude borrowing by state and local governments from the value-added tax.

(d) Consumption loans. Loans to consumers are essentially a consumption expenditure that enable persons to consume sooner than otherwise. Accordingly, in principle, interest on these loans should be subject to value-added tax, along with all interest charges made by sellers to customers buying on credit. However, a closer look at the issue suggests some problems. Consumer credit can be grouped into two major classes.

(i) Housing loans. A substantial portion of all household loans is for housing construction and purchase. As discussed in another section to this chapter, there is merit, from an equity standpoint, in avoiding a heavy value-added tax burden on housing. It may be viewed as unacceptable to add a value-added tax to interest paid on home mortgages.

(ii) Other loans. Most other loans, in dollar amounts, are made for purchases of consumer durables. The value-added tax should apply to the interest on these loans since they are for consumption expenditures. Some retail sellers frequently include a carrying or finance charge in their sales prices, in effect, offering liberal payment terms in exchange for a higher price. Since the full sales price would be subject to value-added tax, the failure to tax interest on consumer loans would discriminate against this category of retailers. The alternative of requiring the retailer to separate the finance portion of the charge from the basic sales prices of the goods would be a major complication.

Some consumer loans are truly for hardship purposes, such as when a sudden loss of income or increase in emergency expenses (e.g., illness) requires one to borrow. Delineation of these from other consumer loans is virtually impossible, but their existence raises some doubt about the general desirability of taxing interest on consumer loans.

Taxation of interest on consumer loans, when that on other loans is not taxed, would give rise to some borderline problems. A farmer may borrow to improve both his barn and his house. Individuals may borrow to buy securities. Some dividing lines can be developed, but not without administrative complications.

A final problem with regard to taxing consumer loans by banks is the incentive that would be given to persons to borrow for consumption purposes from sources other than banks and other registered financial institutions. It may be possible to use income tax records to ensure that value-added tax is paid on loans from one individual to another. This, however, may greatly increase the number of value-added taxpayers. The problem is somewhat parallel to the problem of casual purchases of goods from other individuals, but there would appear to be substantially greater opportunity for this type of substitution of loans than for the purchase of goods.

(e) International complications. If application of a value-added tax to financial institutions is limited to interest on consumer loans, there should be no significant international complications. Interest paid by foreign borrowers would not be subject to value-added tax under the destination principle. Borrowing by U.S. consumers from foreign banks would technically be subject to tax and probably could be reached by treaty arrangements.

(f) Summary. For the basic or core lending activities of banking and of other thrift institutions, there are three major options, the third being the closest to the European system, which generally exempts financial institutions:

(i) Apply value-added tax to interest charged on all loans. The value-added tax would be a credit for registered business firms against their own value-added tax liability. Though this approach would subject consumer loans to value-added tax, it would also impose a value-added tax on housing loans, as well as farm and government borrowing; there are, as noted, objections to taxing these types of loans.

(ii) Apply value-added tax to interest charged on all loans, but zero-rate interest charges on loans to government, farming, and housing to avoid imposing additional tax on these sectors.

(iii) Apply value-added tax to interest charged only on consumer loans, but exclude interest charged on housing loans. All other loan interest would be exempt, not zero rated. Under this approach, banks would be treated as exempt on all of their lending activities, except for consumer loans. The primary objection to this approach is that banks and other financial institutions would have to distinguish between consumption loans and other loans. Ideally, they also would have to segregate their purchases related to taxable consumer loans from those related to their exempt lending activities.

As distinct from their core banking functions, financial institutions also perform various services for which a specific charge is made. Some services such as checking accounts with above-minimum specified balances are provided free of direct charge, being financed by the interest earnings on the depositor's money. But others are subject to a direct charge: rentals of safe deposit boxes, provision of printed checks, and brokerage activities. These services can and should be taxable. If most interest charges are exempt, the institutions would still be registered for their secondary activities. Establishments rendering taxable financial services would be able to credit value-added tax paid on purchases of material and equipment against taxes due on charges for brokerage, safety deposit boxes, trust functions, and other secondary activities, to the extent that the materials and purchases can be attributed to these secondary activities. This should not be a difficult procedure for the banks since many of these purchases, such as checks or safe deposit boxes, are directly related to the services provided.

2. **Brokerage activities.** There is a wide range of brokerage services, involving the sale of securities, real estate, and the like. These can be subject to a value-added tax, but the argument may be raised that taxing them would interfere with the free functioning of capital markets and that these services, such as for the purchase of securities, are not truly a consumption expenditure.

3. **Insurance.** The value added of an insurance company is roughly equivalent to the payments it receives from policyholders for risk protection. In the case of a term life insurance policy, which has no, or minimal, savings element, value added is approximately equal to premium receipts less death benefits paid. For a life insurance policy with a cash value, value added would be equal to premium receipts less death benefits and the policy's savings component. Value added for other forms of insurance, such as automobile and health protection, also would be equal to premium receipts less claims paid.

Ideally, a broad base value-added tax could be applied to the value added of an insurance company. However, the credit method value-added tax does not lend itself readily to insurance company taxation. Though the company could certainly charge value-added tax on its premium receipts, it presumably would not be charged value-added tax by policyholders on amounts received as claims paid. The insurance company could possibly act as the withholding agent, but there may be substantial public opposition to imposing a value-added tax on amounts received on death benefits or health insurance claims. For the insurance industry, a subtraction type value-added tax may be preferable to the credit method value-added tax, but this, of course, would be a substantial departure from the basic credit method system that is the focus of this volume. As a second-best alternative, exemption of insurance companies may be the soundest policy choice.

All Member States of the EEC exempt insurance transactions, as allowed by the Sixth Directive. Thus, insurance companies are not taxed on the delivery of insurance services, nor are they allowed to deduct value-added tax imposed on purchases related to the delivery of those services. The effects of exempting insurance would be parallel those in the banking and finance area. Though exempt persons and final consumers would benefit from buying insurance on an exempt basis, the impact on taxable persons may be adverse because of the multiple taxation problem created by not allowing the insurance firm a credit for the tax paid on its purchases. Still, given the difficulty of measuring value-added in the insurance industry, at least in the context of a credit method value-added tax, the best alternative may be to exempt, but not zero rate, insurance activities.

C. Governmental Activities for Which No Charge Is Made

Most governmental activities are financed through taxation, without a specific charge being made to the user of the service. Because of the absence of a price for most government services, the value-added tax cannot be applied in the usual fashion to traditional

government activities. The tax treatment of sales of certain commodities and services by governmental entities as well as of sales to Federal, state, and local governments will be discussed in a separate section.

D. Services That Cannot Effectively Be Taxed for Administrative Reasons

Some services would be suitable for value-added taxation, but they cannot be taxed for administrative reasons. These include:

1. Foreign travel. A value-added tax should not be imposed on expenditures for travel outside the country. The taxation of airline tickets for overseas travel would distort consumer buying habits and cause American carriers to lose passenger traffic; many U.S. travellers would simply buy a ticket to the nearest Canadian city and then purchase a ticket in Canada for the remainder of the trip.

2. Personal service rendered in the home by individual employees. There is no feasible way of including this service within the scope of the value-added tax, whether the persons are technically employees (and thus legally subject to social security withholding) or independent contractors, but not established firms. Payments to individuals providing household cleaning, babysitting, and lawn and garden services cannot be taxed, except when they are made to commercial establishments with a fixed place of business. Some economic distortion and inequity would result from failing to tax these services, but there is no ideal workable solution. A closely-related problem is the widespread "moonlighting" activity in home repair, painting, and plumbing by persons who are employees of commercial firms, but who also provide these services on their own time.

E. Problems in the Transportation Field

Some problems would arise in applying a value-added tax to transport services. Some forms of transportation are highly competitive with the "do-it-yourself" provision of transport service; the labor component of the latter cannot be fully taxed. Other transport is highly subsidized by the government. The application of a value-added tax to a subsidized service is likely to increase the government subsidy with no net revenue consequences.

1. Freight transport. There is little justification for taxing freight transport under a single-stage retail sales tax of the type used by the states since it is rendered almost exclusively to business firms. But a value-added tax should be applied to freight transport since the transport firms would then receive a credit for the tax paid on their purchases of equipment, supplies, and fuel. Business customers would receive credit for the tax paid on their purchases of freight transport. If transport firms were not subject to value-added tax they would not receive a credit on their purchases and there would be a break in the tax and credit chain. But even with a value-added tax there are some problems.

Consider the purchase of transport service by an organization that is exempt, not zero rated. Since an exempt entity cannot obtain a credit for tax paid on its purchases, the cost of for-hire transport would be increased compared to private transport provided by the exempt entity itself. As with the purchase of any good or service by an exempt entity, this would give the exempt firm an incentive to provide its own freight transport service.

Another problem in freight transport arises out of the large number of owner-operator truckers, as many as 100,000. Those who work under contract for common carriers do not need to be registered from a collection standpoint, since their receipts would be included in the charge made by the common carrier to the customer. If they are not registered, however, they cannot receive a credit for the value-added tax paid on their purchases. One solution, which would avoid registering these owner-operators, would be to allow the common carriers for which they operate to take the credit for the value-added tax paid by the owner-operators on their purchases. This, however, would require the owner-operators to maintain the records necessary to document the purchase credits taken by the common carriers.

On the whole, the application of the value-added tax to freight transport would involve a number of administrative difficulties, but these do not amount to a compelling reason for excluding transport firms from the coverage of tax.

2. **Urban passenger transport.** Most urban transport is provided either by governmental agencies (transit authorities) or by private firms under contract. In either event, there is a substantial subsidy element; with some transit systems no more than a quarter of the revenue comes from passenger fares. If a value-added tax were applied to the fares, either the fare net of tax would be reduced to avoid the loss of passenger traffic, or, if the fare were increased by the amount of the tax, passenger traffic would fall. In either event, the required subsidy would be greater. There is nothing inherently wrong with this in an economic sense, although it would result in a revenue transfer from local governments to the Federal government. To the extent that encouraging the use of urban transit to alleviate street and road congestion and pollution is considered an important social objective, a case can be made for zero rating urban transit, including metropolitan area rail and bus commuter service.

The issue of taxi service is more complex. It is tempting to think of taxis as being used primarily by higher income consumers, but some of the users are poor and others are business users. Many taxis are owner-operated, and it may be difficult to monitor them for tax administration purposes. Since zero rating of taxis would pave the way for abuse in the purchase and use of motor fuel and vehicles, exemption is the best solution.

3. **Intercity passenger service.** This type of service should be subject to value-added taxation. The arguments for alleviating road congestion and air pollution apply with much less force than in the

case of urban-area transport. Like urban transport, some of this transportation, such as that provided by AMTRAK, is also subsidized. But AMTRAK provides freight service as well as passenger transport. Exempting AMTRAK probably would not be acceptable to AMTRAK's business customers who purchase freight service. Zero rating, on the other hand, would be overly generous given the differences with urban transport. Air transport, as well as train service, should be subject to value-added taxation.

Travel agencies constitute a special form of broker, but one that does not charge the customer for its services, which instead are paid for by the carrier out of ticket fares. Most of the services of travel agents relate to air transport; if air transport is taxed, the travel agency service would be included in the value-added tax base through the taxation of airline fares. The agency could only receive credit for value-added tax paid on its purchases if it registers. As a selling agent it would apply the value-added tax to the charge for the tickets, but this would be remitted to the airline, which would pay it to the IRS.

F. Services Involving Significant Social Policy Considerations

A significant portion of total expenditures on services, about 17 percent, are made for medical, dental, hospital, and related health services. Full value-added taxation of these services would be unlikely as a matter of social policy. Exempting the providers of these services, rather than zero rating the services, would place some tax on the services, but less on those that are labor intensive. Exempt entities would not need to file value-added tax returns. Zero rating would remove the burden of the tax entirely. The case for zero rating is probably stronger for hospitals than for the professional services themselves, as purchases are a more significant element in the total cost of hospital than of physicians' services. Differential treatment, however, may encourage the provisions of physicians' services in the hospital, where they would be zero rated, rather than in an office setting where they presumably would be exempt.

Some of the same considerations apply to legal services. Business firms would, of course, receive credit for value-added tax paid on these services against the tax due on their sales; the portion on individuals would rest upon the persons acquiring the services. There may be some objection that value-added taxation would interfere with the attainment of justice by making it more expensive. The case for exempting or zero rating of legal services, however, is not compelling. A substantial portion of legal work is for strictly consumer activities, such as the preparation of wills and resolution of domestic disputes. Legal services should be subject to value-added taxation.

Education is another type of activity to which application of the value-added tax may be regarded either as impractical or objectionable on social policy grounds. While some portion of private spending on education may represent consumption, some outlays for education can

also be viewed as contributing to human capital formation. Many educational services are provided more or less free of charge by governmental entities. Consequently, either no or a heavily-subsidized price is charged for publicly-provided educational services. Thus, it would be difficult to apply a value-added tax to the true value of these educational services. If public education were not taxed, consumers of private education would object to taxation of the tuition charges, especially since many private schools have religious affiliations, formal or otherwise. The same considerations apply to university education. As a matter of both social and economic policy, tuition charges should not be subject to value-added taxation. If the value-added tax is not imposed on most purchases by state and local governments, education should be zero rated, rather than exempt.

Similar policy issues relate to religious and charitable institutions. For the most part, those organizations do not charge a price for their services and value-added tax cannot be applied. The issue is not one of applying the value-added tax to their "sales," unless they operate incidental commercial activities such as gift shops, but how their purchases should be treated. This issue is considered in the section on nonprofit institutions.

G. Summary

For economic, revenue, and administrative reasons, a value-added tax should apply to as many services as possible. Any departures from this rule would favor those preferring to consume untaxed or lightly-taxed services, require higher tax rates to raise an equivalent amount of revenue, and complicate the administration of the tax. Accordingly, exemptions or zero rating of consumer expenditures on services should be kept to an absolute minimum. The only services which should be exempt or zero rated are those for which a clear and convincing justification is made on either social or administrative grounds.

III. Taxation of Small Enterprises and Farmers

A value added tax, like any sales tax, is collected from business firms. The effective operation of the tax requires that the firms collect the tax accurately from their customers, keep records of taxable sales and purchases and of tax collected on sales and of tax paid on purchases, file correct tax returns on time, and remit the tax to the government. These tasks create no major problems for most typical business firms, though they give rise to some compliance costs. But there are two general types of enterprises that may find compliance with the value-added tax difficult, and, in turn, effective control of them may be difficult. These are small businesses and farmers.

A. Small Businesses

Even in the United States, there are large numbers of small firms. They tend to be heavily concentrated in the service industries. Other vendors have no established places of business: sidewalk sellers,

house-to-house peddlers, housewares distributors operating from their homes, newsboys, and those selling in flea markets, farmers' markets, and the like.

The basic issue is: should such firms be excluded from the coverage of the value-added tax, presumably by exemption? If so, how should the line be drawn between firms that are to be included within the scope of the tax and those to be excluded? One general approach is to exempt those firms with sales below a specified figure; they would not be registered, but tax would apply to sales to them and they would not receive credit for the tax paid on their purchases.

1. **The case for exemption.** The argument for exemption of small firms is based on operational considerations; the concern that such firms would not maintain adequate records of sales and of value-added tax collected on sales and paid on purchases and that they would not file returns accurately, if at all. All of the EEC countries and most other countries using value-added taxes (as well as ones using manufacturers and wholesale sales taxes) do provide exemptions, usually on the basis of annual gross sales. Some of these countries then apply a "forfait" assessment to the small firms, based on external indicators of the likely volume of sales, such as the number of employees. This procedure is completely foreign to U.S. experience. The Sixth Council Directive of the EEC, issued in July 1977, gave the member countries the option of "applying simplified procedures" for small firms, and all have done so. Table 6-1 summarizes treatment of small firms in a number of countries.

Apart from the compliance problems, the task of handling the tax returns, payments, and delinquencies of small firms would be a major one, for a relatively small amount of revenue. As shown in Table 6-2, a $10,000 gross receipts exemption would, on the basis of 1979-80 returns, have excluded over one-half of the sole proprietors and about one-third of the partnerships in the United States from responsibility for the tax, but only 2.5 percent of total receipts. A $25,000 figure would have excluded 70 percent of the proprietorships, and nearly 50 percent of the partnerships, and about 7 percent of sales. As stated in Table 6-2, these figures exclude the farm sector.

2. **Objections to exempting small firms.** From an economic standpoint, exempting small firms in regular production and distribution channels would create economic distortions. Registered taxpayers would be discouraged from buying from exempt firms, but consumers would tend to purchase from such firms. This would be particularly true if small retailers were excluded; they could, if they wished, sell more cheaply to consumers than their registered competitors. There would also be major problems with where to draw the line for exemption, the determination of whether firms fell above or below the line, and the possibility that a firm's tax status would change during the year.

Table 6-1
EXEMPTIONS OF SMALL FIRMS FROM SALES TAXES, BASED ON SALES VOLUME*

Country	Year	Firms Exempt with Annual Sales Under	Exchange Rate May, 1984	Exemption Expressed in U.S. Dollars	Treatment
Value Added Taxes:					
Belgium	1980	Bfr 2.5 million	55.8	44,803	exempt
		2.5-4.5 million		44,803-80,646	equalization tax on supplier
		4.5-15 million		80,646-268,817	forfait
Denmark	1975	kr 5,000	10.05	498	exempt
France	1980	fr 500,000	8.41	59,453	forfait[1]
Germany	1984	DM 20,000	2.735	7,312	exempt
		20,000-60,000		7,312-21,938	digressive scale
Eire	1980	£ 2,000 for 2 months if 90% sales exempt or 10%	.8937	2,238	exempt
		1,000 for 2 months if rate above 10%		1,119	
		300 service and others		336	
Italy	1980	£ 6 million[2]	1687.5	3,557	forfait
Luxembourg	1977	Bfr 100,000	55.8	1,792	exempt
Sweden	1980	kr 10,000	8.08	1,238	exempt
United Kingdom	1980	£ 5,000	.714	7,003	exempt
Argentina	1980	P 36,000,000	41.6	87,591	special tax on purchases
Bolivia	1977	B 200,000	196	1,020	exempt
Costa Rica	1977	C 800,000	41	19,410	exempt
Indonesia[3]	1984	R 24,000,000[4]	982	24,439	exempt
Manufacturers Sales Tax:					
Canada	1984	$C 50,000	1.22	40,983	exempt
Philippines	1983	P 2,400	11	218	exempt
Kenya	1977	Ks 100,000	14.4	6,944	exempt
Zambia	1982	K 10,000	1.35	7,407	exempt
Guyana	1982	G$ 10,000	3	3,333	exempt
Wholesale Sales Taxes:					
Australia	1982	A$ 12,000[5]	1,113	10,782	exempt
New Zealand	1982	NZ$ 5,000	1.54	3,246	exempt
Switzerland	1983	Sfr 35,000	2.26	15,486	exempt
Retail Sales Taxes:					
Zimbabwe	1983	Z$ 20,000	1.05	19,047	exempt
Paraguay	1977	G 1,800,00	126	14,285	tax applies to purchase
States of India[6]	1983	R 10,000 to 50,000	10.22	978-4,892	exempt
Exemption Based on Tax Liability					
France	1980	fr 1,350	8.41	101	exempt
Equivalent sales figure		fr 7,670		912	
Netherland	1980	G 2,050	3.08	665	exempt
Equivalent sales figure		G 11,388		3,697	
Australia-alternate	1982	A 250	1.13	221	exempt

* to appear in Public Finance in the Fall of 1984.
1. Exempt if annual tax under fr 1,350.
2. and all retailers.
3. Tax limited to manufacturing sector.
4. or R 100 million capital
5. or total tax liability under A$250. Exemption applies to manufacturers only.
6. Most are retail sales taxes, 3 are essentially wholesale taxes, 1 is dual point, 4 are cascade (turnover) taxes.

Table 6-2

Distribution of 1979 Nonfarm Sole Proprietorship Returns, 1980 Nonfarm Partnership Returns, and Amounts of Gross Business Receipts by Gross Business Receipts Class

Gross business receipts class	Number of nonfarm returns			Amount of nonfarm gross business receipts		
	Sole proprietorships	Partnerships	Total	Sole proprietorships	Partnerships	Total
	(000s)			($millions)		
Under $10,000	4,984	415	5,399	$ 15,595	$ 1,215	$ 16,810
$ 10,000 - 25,000	1,597	188	1,785	25,956	3,104	29,060
$ 25,000 - 50,000	1,040	168	1,208	37,107	6,047	43,154
$ 50,000 - 100,000	821	167	988	58,357	11,908	70,265
$100,000 and over	901	335	1,236	258,655	244,518	503,173
All Classes	9,344	1,273	10,617	$395,670	$266,792	$662,462
	Percentage Distributions					
Under $10,000	53.3	32.6	50.9	4.0	0.5	2.5
$ 10,000 - 25,000	17.1	14.8	16.8	6.6	1.2	4.4
$ 25,000 - 50,000	11.1	13.2	11.4	9.4	2.3	6.5
$ 50,000 - 100,000	8.8	13.2	9.3	14.7	4.5	10.6
$100,000 and over	9.6	26.3	11.6	65.4	91.7	76.0
All Classes	100.0	100.0	100.0	100.0	100.0	100.0

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Office of Tax Analysis

Sources: Internal Revenue Service, Statistics of Income--1979-1980, Sole Proprietorship Returns, (1982), Table 3, p. 34; and Internal Revenue Service, Statistics of Income--1980, Partnership Returns, (1982), Table 4, p. 33.

NOTE: Details may not add to total because of rounding.

3. **Is exemption necessary?** In the context of the countries of southern Europe and the Third World exemption of small firms is probably imperative, given the large number of small entities with inadequate recordkeeping. But the case for exemption of small firms is not nearly as strong in the United States. Regular retailers, no matter how small, have learned to keep records adequately for complying with income, social security, and state retail sales tax requirements. The states do not exempt small firms, per se, and state tax officials, in general, report that the problem of small firms without adequate records is not significant. In general, the rule used by the states for sales tax purposes is that registration is required if sales are made on a regular basis as an essentially commercial establishment; this rule excludes persons making casual occasional sales (church bazaars or garage sales) and itinerant sellers, such as children selling fund-raising items for school, church, and social organizations.

While regular retail establishments, manufacturers, and wholesale distributors, even if relatively small, can be registered for the tax, there is a need for special treatment of small vendors without established places of business, including the large number of very small providers of services. The most satisfactory manner in which to draw the line appears to be that used by most states: exclude vendors or service establishments that do not have an established place of business or that sell on a casual nonregular basis. Legislative authorization could be given to the IRS along the following lines: Registration shall not be required of those categories of sellers determined not to be engaged in a regular business activity. Under this rule, excluded vendors would be exempt; no tax would be charged on their sale, but value-added tax would apply to the suppliers of these sellers.

4. **Other problems.** If an enterprise that is exempt from the registration requirement sells to registered firms, the tax and credit chain is broken, and the purchaser cannot obtain credit for value-added tax borne on the purchases of the exempt firm. In this case, the option of registering should be given to those enterprises not required to register.

5. **Summary.** No exemption of small firms based on gross receipts or a similar criterion should be provided, but registration for value-added tax purposes should not be required of sellers having no established place of business and making only casual sales.

B. Farmers and Value-Added Taxes

The application of a value-added tax to farmers raises several issues. In general, it is not feasible to simply treat farmers and agricultural products in the same fashion as other segments of the economy. Several aspects of farm production and sale warrant consideration:

1. **The existence of large numbers of small farmers.** While agricultural output has become increasingly concentrated in large farms, there are still many small farms. According to IRS data drawn from the Statistics of Income, as shown in Table 6-3, in the 1979-81 period, of 3.2 million farmers, 2.2 million had gross receipts from farming under $25,000 a year. While these small farmers must keep some records for income tax purposes, they are not subject to state sales taxes, and their records may not be adequate to file accurate value-added tax returns. Compliance costs to farmers of filing periodic value-added tax returns and of making payments would be non-trivial. Moreover, farmers would need to issue invoices to the purchasers of their products, which they may not now regularly do. The administrative costs to the IRS of handling all of these small returns, equal to at least 10 percent of total returns, would be no less significant than the additional compliance costs for farmers.

2. **Exports.** A large portion of total agricultural output, about 90 percent, consists of food, including livestock feed. A high percentage of farm output, about 30 percent overall, is exported. For major crops, the percentages exported in 1981 were wheat, 64; corn, 27; soybeans, 45; cotton, 44; and tobacco, 32. Taxation at the farm level of crops that will be exported involves no net revenue gain and substantial effort; it is not necessary to apply the value-added tax to the sale of a trainload of corn that is destined for export since the tax would be refunded when the farm products are exported.

3. **Solutions.** The application of a value-added tax to agriculture would result in large numbers of small farmers being required to file value-added tax returns, with little net revenue gain. The IRS would incur substantial costs in handling these returns. There are several possible solutions:

(a) Exempt small farmers, those with gross receipts less than a specific amount. This would lessen the problems of compliance by small farmers and the handling of large numbers of low tax returns by the IRS. But the problem of shifting of the tax borne by these small sellers on their purchased inputs would remain. Any borderline based on gross receipts would be arbitrary and firms would not know their tax status until the end of the year. Almost of necessity, the use of the previous year receipts figures would have to be sanctioned. There would be a small incentive to divide farms among family members to avoid having to file tax returns. Small farmers would be favored over larger ones on direct sales to consumers, but business purchasers would prefer to buy from larger registered farmers, who, by virtue of being registered, would get a credit for tax paid on their purchases of farm inputs.

(b) Exempt all farmers from the value-added tax. This alternative would eliminate the borderline between large and small firms; no farmers would need to register or to file returns (unless they sold taxable farm products at retail in an organized, continuous fashion). But the tax and credit chain would be broken for all farmers; farmers could not obtain credit for tax on their farm inputs. Thus, the tax

Table 6-3

FARM ENTERPRISES: Proprietorships, Partnerships, and Corporations
Number and Busines Receipts by Size of Receipts

Gross Business Receipts Class	NUMBER				GROSS BUSINESS RECEIPTS			
	Pro-prietor-ships	Partner-ships	Corpora-tions a/	Total	Pro-prietor-ships	Partner-ships	Corpora-tions a/	Total
	thousands				$millions			
Under $25,000	2,178	36	19	2,223	$13,720	$ 310	$ 112	$ 14,142
$25,000 - 50,000	342	14	7	363	12,262	503	271	13,036
$50,000 - 100,000	247	17	10	274	17,387	1,306	714	19,407
$100,000 or over	204	41	49	294	51,309	17,054	59,810	128,173
Total	2,972	108	85	3,165	$94,679	$19,174	$60,907	$174,760

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a/ Corporate data are for the "agriculture, forestry, and fishing" industry. Separate figures for farms are not available.

Sources: Internal Revenue Service, Statistics of Income -- 1980 Partnerships Returns, Table 4, p. 33; Statistics of Income -- 1979-1980 Sole Proprietorships Returns, Table 11, p. 165; and Statistics of Incoem -- 1981 Corporation Income Tax Returns, Table 7, p. 49.

NOTE: Details may not add to totals because of rounding.

on farm inputs would be reflected in farm product prices. One solution that is widely used in Europe would allow the purchasers of farm products to presume that a specified percentage of the purchase prices of farm products consists of value-added tax on purchases by the farmer. But the average figure authorized by law would not equal the actual figure for many transactions.

There are other partial solutions to the tax on inputs problem that arises if farmers are exempt. Farmers could be given the option to register if they wished; the experience in Europe is that many of the larger farmers would register. But this does not solve the problem completely. If most farmers register, then the objective of minimizing the number of small returns would not be attained.

Another possible solution is to allow farmers a credit against their income tax liability for value-added tax paid on purchases. But this would complicate the income tax returns and may give farmers a temptation to overstate the credit. Very small farmers not now filing income tax returns would not get the credit without filing a return.

(c) Zero rating farmers. The zero rating of farmers would solve the problem of the tax on farm inputs, but it would require registration of farmers and the filing of returns to receive a refund of the taxes on purchased inputs. This alternative would accomplish little in the way of avoiding costly compliance work for farmers and additional administrative responsibilities for the IRS.

(d) Exempting farmers and zero rating sales to farmers. The fourth alternative is to exempt farmers and zero rate sales to farmers of major classes of farm inputs: livestock and livestock feed, fertilizer, farm machinery, and possibly fuel for farm use. This approach would remove almost all value-added taxes on farm inputs; to also zero rate sales of minor items such as hand tools would pave the way for evasion (consumption use of the item) and create additional complexity. For those categories that are zero rated when sold to farmers, the suppliers would have to distinguish farm from nonfarm sales. But most of the sales of these classes of commodities, other than fuel, are made to farmers; the trade is highly specialized. Fertilizer sold in small quantities through retail stores, for example, would not be subject to the zero rating. Inevitably there would be some leakage, as a farmer used farm fertilizer for his lawn, but this is a minor problem. Zero rating of fuel for farm use may pose more of an abuse problem. Sellers of zero-rated farm inputs would receive credit for value-added tax paid on their purchases of the inputs.

This solution would avoid applying the value-added tax on the sale by the farmer of crops destined for export. Without some special rule, tax would apply on the sale by the country elevator to the subterminal or river elevator, and by the latter to the exporting firm. But it should be possible to devise some form of licensing system that would permit these transactions destined for export to be free of application of the tax.

5. Illustration of alternative approaches. Table 6-4 illustrates four alternative methods for dealing with the problem of farmers: full taxation; exemption; use of the EEC system of allowing the firm purchasing the farm products to treat a specific percentage of the purchase price as consisting of value-added tax on farm inputs; and exemption of the farmer with zero rating of sales to farmers of major farm inputs. The table is based on the assumptions that the farmer can directly add the tax to his selling prices and that food is taxable.

The top section of the table illustrates ordinary value-added tax treatment under a 10 percent value-added tax that applies to a farm supplier, a farmer, and a food wholesaler. In the example, total value added by these firms is $2,000, which at a 10 percent rate would yield $200 of value-added tax revenue.

The second section of Table 6-4 illustrates the situation if the farmer is simply exempt from the value-added tax. The wholesaler cannot claim any credit for the value-added tax included in the purchases from the farmer (there is a break in the chain of credits) and the government actually collects more value-added tax ($60 more in this case) than in the ordinary situation shown at the top of Table 6-4. This occurs because the value added by the farmer's supplier, the seed seller, is, in effect, taxed twice.

The third section of Table 6-4 illustrates how the EEC alternative treatment for farmers would operate. As is shown, the farmer charges no tax on sales and receives no credit for value-added tax paid on seed purchases (or purchases of any other inputs). The wholesaler pays a gross value-added tax of $250 on its sales and then subtracts both the actual and assumed value-added tax paid on purchased inputs. In the example, it is assumed that the wholesaler is allowed to deduct 4 percent of the value of purchases from the farmer from its gross value-added tax liability or $40; the wholesaler also subtracts $50 of value-added tax actually paid on other purchases. Using these assumptions, the wholesaler's net value-added tax would be $160. The total value-added tax collected by the government, in this example, would be $220 as compared with $200 under ordinary value-added tax treatment.

Under the EEC system, the total tax on a product may be either more or less than would prevail under ordinary value-added tax treatment. The outcome depends on the percentage of the purchase price of farm products that the farmers' business customers are allowed to credit. In the Table 6-4 example, the farmer actually paid the seed seller value-added tax of $60; this is the amount that should ideally be allowed as a credit to the wholesaler. However, in the example, the wholesaler is allowed to credit only $40 against its gross liability. The $20 difference between the amount the wholesaler should ideally have credited and the amount of tax allowed as a credit represents the difference between the total tax collected under the EEC alternative system ($220) and the amount that would be collected under ordinary value-added tax treatment ($200). Thus, under the EEC alternative tax treatment, the total value-added tax imposed on a product

Table 6-4

Illustrative Treatment of Farmers Under a 10 Percent Value-Added Tax

ITEM	SEED SELLERS	FARMER	WHOLESALER	TOTAL
		Assumed facts		
Sales	$600	$1,000	$2,500	$4,100
Less purchased materials:				
From farmers	-	-	-1,000	-1,000
Others	-	-600	-500	-1,100
Equals value added	$600	$ 400	$1,000	$2,000
		(1) Ordinary value-added tax treatment		
Tax due on sales (at 10% rate)	$ 60	$ 100	$ 250	$ 410
Less credit for tax paid on purchases	-	-60	-150	-210
Equals net tax due	$ 60	$ 40	$ 100	$ 200
		(2) Exemption of farmer		
Tax due on sales (at 10% rate)	$ 60	$ 0	$ 250	$ 310
Less credit for tax paid on purchases from others	-	0	-50	-50
Equals net tax due	$ 60	$ 0	$ 200	$ 260
		(3) EEC alternative treatment for farmers		
Tax due on sales (at 10% rate)	$ 60	$ 0	$ 250	$ 310
Less credit for tax paid on purchases:				
Assumed amount paid to farmers	-	-	-40	-40
Other suppliers	-	0	-50	-50
Equals net tax due	$ 60	$ 0	$ 160	$ 220
		(4) Exemption of farmers and zero rating of Major Farm Inputs		
Tax due on sales (at 10% rate)	$ 0	$ 0	$ 250	$ 250
Less credit for tax paid on non-farm purchases	-	-	-50	-50
Equals net tax due	$ 0	$ 0	$ 200	$ 200*

* There would be a small additional tax element from non-zero-rated farm inputs.

is only an approximation of what would happen under ordinary treatment. Only by chance would the value-added tax collected under the EEC system turn out to be the same as would be collected from farmers and their customers under ordinary value-added tax treatment.

In all the EEC countries, farmers may elect to join the standard value-added tax system. If they join the system, their sales are taxed and they are allowed to credit the value-added tax paid on their purchased inputs against their gross value-added tax liability. Many of the large, highly mechanized farms find it to their advantage to be in the regular value-added tax system since they pay more value-added tax on their purchases than they would be allowed as credits under the special system for small farmers. In addition, farms producing goods for direct export must join the standard value-added tax system in order to get refunds for the value-added tax paid on their purchases.

The lower part of Table 6-4 shows the situation with exemption of farmers and zero rating of sales to farmers of major inputs, such as seed. The total tax shown is $200, the same as under ordinary value-added tax treatment. The actual tax may be somewhat higher because of the tax element in the purchases of any non-zero rated farm inputs.

6. **Summary.** There is no ideal solution to the farm problem. The recommended solution would exempt farmers and zero rate the sales to farmers of basic primary farm inputs: livestock and livestock feed, seed, fertilizer, farm machinery, and, probably, fuel--primarily diesel--sold for farm purposes. It should be possible to devise some system to avoid taxing at pre-export stages the very large volume of sales of farm products for export.

IV. Governments and Not-for-Profit Institutions

In designing a value-added tax, questions may arise as to whether the tax should apply to activities of governmental entities and non-profit institutions.

A. Governmental Units

Under any form of sales tax, the treatment of governmental units encounters special issues concerning general policy, administration, competitive equity, and intergovernmental relations.

Most governmental services are provided without a specific charge, and therefore value-added tax cannot apply to the services per se. There are four issues that arise under a value-added tax:

1. Should the tax apply to sales by governments when a charge is made?
2. How should government purchases be treated?
3. Should Federal, state, and local governments be treated in the same fashion?
4. Should government-owned corporations or the equivalent be treated differently from government agencies?

1. **Sales by governments.** In general, the basic rule should be that if the activity is taxable when it is provided by private firms, value-added tax should apply to sales by government units, unless there are compelling reasons to the contrary. Thus, essentially commercial activities of government, such as the sale of electric power by government-owned utilities, alcoholic beverages by state liquor stores, prints by a government art museum, meals in government cafeterias, highway toll roads, and parking garages (but presumably not parking meters), would be subject to tax. Governmental units providing these goods and services would be registered for the value-added tax.

But there are borderline cases. Charges are made for various traditional government activities, such as recording deeds, issuing passports, and licensing household pets. Sales of government documents have a somewhat similar status. There would appear to be little gain from applying the value-added tax to these traditional governmental activities. Another borderline case is the postal system; should value-added tax be applied to postal charges? For parcel post the case seems clear: tax should apply if it does to transport by private firms. While there is no economic reason not to apply a value-added tax to first class and special delivery postal charges as well, there may be some political objection.

Problems would also arise with activities such as garbage collection. In many municipalities, garbage collection is financed out of general tax revenue with no separate charge to the users. But some municipalities do charge separately for the service, and users are charged for all garbage collection provided by private firms. But to apply a value-added tax to either of these charges when garbage disposal financed by general tax revenue would not be subject to the tax raises serious questions of equity and may create economic distortions.

2. **The tax treatment of government purchases.** With regard to the value-added tax treatment of purchases by governmental units, there are three alternatives:

(a) Exempt governmental units. Under this approach, government units would not be registered (except when they are subject to value-added tax on their charges) and would not file value-added tax returns. But they would bear the full burden of the tax applied to their purchases. At the Federal level, there should be no great objection to this, though would be no net revenue gain from collecting the tax on Federal purchases, because the cost of government purchases would increase by the amount of the tax. With exemption, the filing of value-added tax returns by Federal agencies and the issuing of large refunds that would involve only intragovernmental transfers would be avoided.

The issue, however, is quite different with respect to state and local purchases, as exemption would involve a net transfer of resources from sub-Federal governmental units to the Federal government.

There may even be constitutional issues, quite apart from the political ones. Thus, some method must be adopted to remove the value-added tax burden from the purchases of state and local governmental units. There is no objection, incidentally, to applying more lenient treatment to the states and local governments than to the Federal government, though there would be to the reverse.

(b) Zero rate governmental units. This approach would remove the value-added tax burden from the governmental units since they would receive a credit or refund for tax paid on their purchases. But, for both the governmental units and the IRS, it would involve tremendous paperwork in the filing of returns and issuing of refunds to the large number of Federal, state and local government units. Moreover, since applying the tax to Federal government purchases would reflect the true costs of government operations, it does not seem sensible to refund the value-added tax. Thus, there is no need to zero rate the Federal government. With exemption but not zero rating, the tax would still be collected on the purchases by the Federal government, but the administrative and compliance costs associated with filing returns and processing refunds would be avoided.

At the state-local level, however, zero rating would be necessary if another alternative is not used to eliminate the value-added tax on state and local purchases. Zero rating would remove all value-added tax burden, and it would avoid the necessity of the governmental units distinguishing between purchases for the provision of commercial services on which they collect value-added tax and those for other purposes. But it would require every state and local government unit, including the myriad of special districts, to register as a value-added tax taxpayer and file for refunds. However, suppliers would treat sales to government in the same fashion as other sales.

(c) Zero rate the sales to governmental units and exempt the units. This alternative is similar to that suggested for farmers and would also remove the burden of the value-added tax from the governmental units. The suppliers would not apply tax to their sales to governmental units, and would receive credit for value-added tax that has applied to the commodity up to sale to the government. By not registering government units, this approach would avoid a substantial number of tax returns and refund payments. But it would require sellers to distinguish in their sales between governmental and nongovernmental purchasers, as they must do now under most state sales taxes. This would not be a major task for large suppliers such as defense or highway contractors, or suppliers of large quantities of heating oil to a school district. But it would be more difficult for retailers supplying small quantities of goods to local government units. Some loss of tax revenues on otherwise taxable transactions would be inevitable. The question is whether this is a more serious problem than the returns and refund problem that would arise with zero rating of governmental units. This procedure could be applied to the states and localities and not to the Federal Government, but it is the local government level where the greatest danger of leakage of tax revenue may occur.

3. **Government corporations.** Government corporations and similar entities primarily often provide commercial services; the principles outlined above should apply on commercial services whether provided by a governmental agency or a government-owned corporation, such as AMTRAK. Various governments use different systems; the legal status of the entity should not be a relevant consideration.

4. **Summary.** Value-added tax should apply to taxable goods and services, regardless of whether they are publicly or privately provided. There would be little gain from applying the tax to traditional governmental fees and license charges.

Purchases by the Federal government should be subject to value-added taxation to properly reflect the costs of government operations. This would have a net effect on the Federal budget; value-added tax receipts would be higher, but so would appropriations to pay the costs associated with the tax. If it is necessary to allow states and local governments to make purchases on a tax-free basis, two possibilities exist: to zero rate the governmental units or exempt the governmental units and zero rate the sales to them. In many respects the latter is simpler as it avoids excessive filing of returns and subsequent refunds, but it would create some problems for suppliers.

B. Taxation of Nonprofit Institutions

A wide range of nonprofit institutions is not subject to Federal income tax. Decisions must be made as to their treatment under a value-added tax; exclusion from one form of tax does not necessarily warrant exclusion from another; each exclusion from the value-added tax would increase the credibility of other pleas for special treatment. There are three major issues:

1. **Should all nonprofit institutions be treated the same?** Consideration of special treatment should focus not on the nonprofit nature of the institutions, but on the activities they perform. In general, special treatment should be considered only for those nonprofit institutions whose services are considered unsuitable for taxation under a value-added tax, as a matter of social policy. These include hospital, charitable, religious, and educational institutions. There is no justification for special treatment for consumer-buying cooperatives, farm cooperatives, labor unions, farmer and business associations, fraternal and social organizations, and the like. Some of these will make no sales of taxable goods and services and thus will not be registered under the value-added tax, but their purchases would be taxed in the regular manner; those organizations making taxable sales would be registered and subject to tax.

2. **Tax treatment of sales.** As noted in section II on the taxation of services, many services are provided without a charge in the usual sense; one does not pay a charge to attend church and persons receiving charity do not pay a charge for it. Accordingly, a value-added tax cannot, indeed should not, be applied to the services for which no charge is imposed. Some of these institutions, however, may provide

other services for a charge or sell commodities. The most satisfactory general rule is to apply value-added tax to the charge if the tax would apply if the service or commodity were provided by profit-making firms. Thus, a university or research institution selling books or personal computers would be registered and would collect value-added tax on these sales. This would also be true of sales in hospital gift shops and of sales by workshops for the blind. Tuition charges for education and hospital charges would not be taxed on the basis of both economic and social policy considerations.

3. The alternatives on purchases. Because it is not necessary to encourage all forms of activity undertaken by nonprofit institutions, the argument for special treatment of purchases of nonprofit institutions is much weaker than in the case of their sales. If some of the institutions are to receive special treatment for their purchases on social policy grounds, there are several options:

(a) Exemption of the institution. If the institution is exempt, it would not be subject to value-added tax on the services it renders, but it would receive no refund of tax on its purchases. The result would be that the institution would bear the burden of value-added tax on its purchases, but not on its own value added. Thus, there would be little burden on labor intensive types of activities. Under this rule, nonprofit institutions would not be registered, except for incidental activities such as operating a cafeteria for the public; they would receive credit only for the purchases for the registered activity. This would be a source of some problems but it is not insolvable.

(b) Zero rating of the institutions. This would free them from all value-added tax on their purchases and would eliminate the need for distinguishing between purchases for their general functions and for specialized taxable activities. But they would be registered and file returns to obtain refunds; tax would be collected from their suppliers, and in turn refunded to the institutions. The choice of this method vs. exempting should be made on the basis of social policy: is it essential to remove the value-added tax on their purchases, and is this worth the administrative and compliance costs of handling large numbers of returns and refunds which yield no revenue?

(c) Exempt the institutions and zero-rate sales to them. By this means, the institutions would not be registered as value-added tax taxpayers (except on their specialized taxable activities, if any); they would be issued a special institution number as hospital, religious, educational, or charitable organization, enabling them to buy tax free. Not only would all sales to them be free of tax, but the seller would receive credit for tax paid on the purchase of these goods or on their inputs. Thus, all value-added tax burden would be removed from the institutions without the need for their being registered as taxpayers and filing returns. The suppliers, however, would have the troublesome task of distinguishing sales to these institutions (in the same fashion that firms selling for export must identify export sales). Though there might be some abuse of this privilege, the difficult administrative problems of handling the returns from

these institutions, itself subject to some possible abuse, would be avoided. The procedure would be comparable to that used by the states in excluding sales to these institutions and to the treatment suggested for farming in an earlier section.

One further issue relates to the treatment of for-profit institutions in the hospital and education fields. For hospitals the same treatment should be applied to profit and nonprofit institutions; the zero rating would apply to hospitals regardless of the for-profit situation. It would be difficult to do otherwise, since the tax is presumably borne by the users of the service.

4. **Summary.** Special treatment of nonprofit institutions under the value-added tax would give rise to a number of administrative problems and would lessen the generality of the tax. Special treatment should be considered only for those of a religious, charitable, educational, or health care nature; while others are not subject to Federal income tax there is no need to give them special treatment under a value-added tax. For those receiving special treatment, a choice must be made among the three techniques: exempting them, zero rating them, or exempting them and zero rating of sales to them. Only the second and third would remove all value-added tax burden. Zero rating of nonprofit institutions would require registration, filing of returns, and granting of refunds. Zero rating of sales to them would avoid these problems, but would require suppliers to distinguish these sales from others.

V. Housing and Construction

The taxation of housing services is one of the most troublesome aspects of a value-added tax, as is the related issue of taxation of real property construction. Much of the problem arises because a large portion of total housing is owner-occupied, the remainder being rental; complete equality in treating homeowners and tenants is difficult if not impossible to achieve under a value-added tax. The second aspect of the problem is that housing facilities have very long lives compared to other consumption; housing built or acquired in one year will be consumed over a long period of time. A similar timing problem arises with nonhousing construction.

Before these issues are considered, however, the threshold question is: should consumption of housing be subject to a value-added tax? The general answer, as to all consumption spending, is yes, unless there are compelling reasons for not doing so. One reason for not so doing is the importance of housing costs in the family expenditure patterns of the low-income groups. If there is no general system to reduce value-added tax on the poor, such as refundable credits, a convincing argument can be made for attempting to exclude a minimum housing expenditure from tax, just as there would be for zero rating of food. This is not easily accomplished. General exclusion of housing from the tax would favor those persons with relatively high preferences for housing and provide an artificial incentive to increase housing consumption relative to that of other goods. The base of the

tax would be reduced materially, requiring higher rates to raise an equivalent amount of revenue.

A. Housing: Homeowner versus Tenant

If the principle is accepted that housing expenditures should be subject to at least some value-added tax, the most difficult issue to resolve is the provision of reasonable equality of treatment between homeowner and tenant, a problem aggravated by the long lives of housing facilities. The failure to provide equality of treatment would encourage the favored type--almost certainly homeownership--and would discriminate against families that could not or did not wish to own their homes.

With rental housing, there is no major problem in applying a value-added tax; the building owner would apply the value-added tax to the rental charge and would in turn receive credit for value-added tax paid on the building and all other purchases of produced goods necessary to provide the rental facilities. (The timing problem of crediting the tax on the purchase of the building is discussed below). Under this approach, all lessors would be registered and would file value-added tax returns. The only operational problem would arise with persons renting only one or two houses, or rooms in their own homes; it would be difficult to ensure that all such persons registered for value-added tax purposes, compliance would be a burden, and delinquency in the filing of periodic returns would probably be high.

With respect to owner-occupied housing, each home or condominium unit owner could be required to pay value-added tax periodically on the imputed rental value of the home or unit. This, however, would give rise to several problems. First, it would require that each homeowner be registered for the value-added tax, thus sharply increasing the number of registered units and creating significant administration and compliance costs in handling returns and delinquencies. A second problem is that of determining the imputed rent, or what the house would rent for if it were rented in an open market transaction, net of expenses. This would be a notional value; but notional, as distinct from market, prices are always troublesome in any form of sales tax. Third, historically there has been strong resistance to including imputed rent in income for income tax purposes; there also would be restrained enthusiasm to doing so under a value-added tax. If imputed rent were taxed, homeowners would be required, in effect, to include the imputed rental value as an element in income (even if was not taxable for income tax purposes) and simultaneously treat it as a consumption expenditure. There would be public resistance to paying value-added tax on an element which does not appear as or arise from a monetary transaction. Because of these problems, it would not be feasible to include imputed rent on owner occupied housing within the scope of a value-added tax. Therefore, rent paid on rental housing should not be included either, for reasons of both equity and economic efficiency.

1. Taxation of purchases of new residential housing. One alternative would be to tax persons on the purchase of newly-constructed houses less the value of the land, or the equivalent, tax the entire contract price when a person enters into a contract for the construction of a new home. This would require that all general contractors be registered for value-added tax as well as subcontractors and speculative builders. The tax would apply to all new housing facilities whether purchased by landlords or occupiers. This approach would provide equity between homeowners and tenants in a rough way, but it is not without its problems.

It would require the registration of all general contractors, a group that the states have found to be difficult to control for sales tax purposes. Many contractors are small concerns, which may build only one or two houses a year. Subcontractors would be less of a problem since many are also wholesalers or retailers of building materials and would be registered anyway. With this alternative, tax would apply on the charges made by the subcontractors for materials and services provided to the general contractors; the latter would receive a credit for this tax against their own tax liability. Exclusion of the value of the land is troublesome, but if it is not excluded, the land would be sold separately. Taxation of land, per se, is not appropriate under a consumption tax; the purchase of land, from the standpoint of the economy, is not a consumption activity.

The more serious problem is that the tax would apply only to the initial sales of new construction, plus repair and alteration work. Persons already owning their homes at the time the tax was introduced would escape value-added tax on their housing expenditure, except for repairs and maintenance. The sale and rental value of existing houses would tend to rise, because new houses would be more expensive, creating a windfall gain for the present owners.

There also is a timing problem. Though a house may be used for 75 years, tax would be borne when the new house is acquired. On other expenditures, the purchased item will be used immediately or with few exceptions over a relatively short period. But with housing, a large sum of tax would be paid for consumption to be spread out over decades. The consequent increase in the cost of housing would undoubtedly reduce somewhat the construction of new housing, since many families can afford only a certain monthly payment for the purchase of homes.

2. Taxation only of materials. A second alternative, which parallels the practice in most states under the retail sales taxes, would be to tax only the materials and other produced inputs going into real property construction. General contractors would, in effect, be exempt. The general contractors would not be registered (unless they also were dealers in materials) and they would not file value-added tax returns. If they were registered because they were also dealers for construction materials, they would file returns and charge tax only for their dealership activity. Tax would not apply to sales of new housing by general contractors; nor would they receive a credit

for value-added tax paid on their purchases of materials. Thus, tax would be reflected in their contract prices. Subcontractors would typically be registered because they usually are dealers for construction materials. Subcontractors would charge value-added tax on their sales to general contractors and would receive a credit for tax paid on their purchases. The general contractor would not receive credit for tax paid on purchases from the subcontractor.

The principal merit of this approach is that, since it parallels state practice, the building industry would be familiar with it. It also would reduce the tax burden on housing, compared to the alternative of taxing the full sale price (excluding land) of newly-constructed housing. This alternative, however, would encounter some operational problems. If a different rule were used for nonhousing construction, contractors would have to segregate the two types of contract work. This would be complicated by the fact that some buildings are built for both housing and commercial use.

B. Commercial (Nonhousing) Construction

The value-added tax should apply to the contract price of nonhousing commercial construction. Under this approach, the contractor would apply value-added tax to the contract price and would receive a credit for tax paid on materials. A building owner renting space to commercial tenants would apply value-added tax to the rental charges, and would receive a credit for tax paid on the purchase of the building. Or, a manufacturer or distributor constructing a new building would pay tax on the contract price, or on the materials if it did the construction with its own employees, and would receive a credit for this tax against the tax due on its sales.

There may be a timing problem of some consequence. The manufacturer who contracts for the construction of a factory building would bear a value-added tax on the full purchase of the building. If the firm does its own construction, it would pay tax only on the materials purchased, not on the labor used to erect the building. In both instances, it would receive credit for the tax paid on purchases against value-added tax due on sales, but the timing of the payment and credit may be different and many affect the choice between self-contracting and the use of an outside contractor.

If general contractors are not registered, even for work on business construction, and merely pay tax on their materials for business construction, as well as for housing construction, the chain of tax and credits would be broken, and the firm for which the construction is undertaken could not receive a credit for tax on the construction materials. This would create a strong incentive for self-construction, or for the purchase of the materials by the firm for which the building is being erected. An alternative would be to allow the registered firm acquiring the building a credit equal to a certain percentage of the contract price as representing the value-added tax

on materials, but the amount would be an average and somewhat arbitrary. This would be similar to the EEC treatment of farmers, discussed above.

It is not impossible to use different rules for residential and nonresidential construction, but this would require contractors doing both types of work to keep distinct records, as they would receive credit for tax paid on materials only for the nonhousing construction. If housing construction were freed entirely from value-added tax, this would greatly aggravate the problem of distinguishing between housing and nonhousing construction, and between housing construction and taxable repair activities.

With all approaches to the problem, there is one special difficulty: that of distinguishing between real property construction on the one hand and installation of "fixtures," such as stoves, carpeting, and drapes, on the other. Presumably, the tax should apply to the full sale price of "fixtures" such as stoves, and not the contractor's purchase price, as with materials. This is a troublesome issue, but the states have developed workable rules, and the value-added tax could use the same ones.

C. European Experience

Under the Sixth Directive of the EEC, the leasing of immovable property is tax exempt. Most countries follow the directive and do not levy the value-added tax on residential rents. However, the value-added tax may be imposed on rental payments of taxable entities if they opt for it. A restaurant, for example, may wish to be taxed on its rent so that it may credit the value-added tax against its gross value-added tax liability. Otherwise, the restaurant's customers would be subject to taxation both on the restaurant's meals and on the non-creditable tax borne by the restaurant on the taxable purchases of its lessor.

European experience shows that there are no easy solutions to the problems of applying the value-added tax on housing. The European regulations that are designed to cope with these problems are so complex that it is difficult to generalize about their provisions. The practice in European countries using the value-added tax varies considerably. In Great Britain, sales of new homes are zero rated while such sales are taxed fully in Belgium and the Netherlands. The practices in most of the other EEC countries appear to fall somewhere between the two extremes of fully taxed or totally free of tax.

For the most part, neither the sale nor the leasing of land is subject to the value-added tax in Europe, although France imposes the value-added tax on the transfer of building sites. On the other hand, the value-added tax is levied on work done to improve the land, such as project engineering, leveling, construction and on alteration, repairs, or maintenance of existing buildings.

D. Summary

There is no ideal solution to the problem of taxing housing and real property construction. Equitable application of value-added tax to rents from housing is clearly impossible, in view of the fact that there is no possibility of tax being applied to the imputed rental value of owner-occupied housing. This is a major area in which universal application of the value-added tax is simply not feasible. The second best alternative is to apply the tax to the sale price or total contract figure on new housing construction, or, following state practice, to the cost of materials to the contractors. The choice between these two must be made primarily on the basis of whether taxing sales of new housing is considered to be too harsh. Application of the value-added tax to the full contract price would allow the same policy to be used for nonhousing construction.

VI. Taxation of Used Durable Goods

The value-added tax treatment of sales of used goods, both consumption goods and business assets, is closely related to the issue of the taxation of housing.

A. Consumption Goods

Purchases of used consumer goods constitute a significant element in the annual volume of consumption. In a sense, the sale of most homes constitutes a sale of "used" goods; clearly these would not be taxed, in part, because most sales are made between individuals who would not be registered for value-added tax. Motor vehicles are the other major category, but there are substantial sales of used furniture and other items as well.

While the purchase of used goods constitutes a consumption expenditure from the standpoint of the buyer, there are several reasons for not fully applying the value-added tax on such transactions:

1. After the tax has been in effect for a few years, the sale price of used consumer goods would reflect the value-added tax paid on the original purchase, and thus the purchaser of the used good would share a portion of the tax borne by the initial purchaser. Imposing value-added tax a second time when the item is sold as a used good would constitute a double tax.

2. In terms of the economy, no new consumption activity is involved in the purchase of used goods; except for the value added by the used goods dealers, resources are not being used for the production of consumption goods. A part of the existing stock of durable consumption goods is simply being shifted from some persons to others.

3. Many of the transactions in used goods are between nonregistered individuals, including garage sales and "flea market"

sales that would be difficult to control. Attempts to fully tax sales of used goods by registered firms would drive even more transactions to flea-market types of arrangements.

4. On sales of used goods by registered firms, there would be no separate tax element on the purchases of those goods for which to take value-added tax credit.

In light of the above, one general rule could be: do not apply value-added tax to sales of used goods. But this approach is not without problems:

(a) For the first few years after enactment of the tax, the used goods that are sold would not have been taxed on the original purchase. Instead, as in the case of owners of existing housing, the owners would enjoy a windfall gain as the prices of used goods would rise, reflecting higher prices on new goods. But this is an inevitable transitional problem and is virtually impossible to resolve without serious complications.

(b) Used goods sometimes sell for a price many times higher than the original purchase price. This is particularly true of antique automobiles. A car that cost $700 in 1925 may sell for $50,000 today. The same is true of other antiques. But there is no suitable way of adjusting between these and other used goods.

(c) A further problem is that sellers of both used and new goods must segregate sales between the two classes if used goods are not taxed. This would not be a problem for motor vehicle dealers selling new and used cars, but this segregation may not be done accurately by many repair shops handling both repair and sale of new and used items, nor by second-hand stores, which often sell new merchandise as well as old.

(d) If used goods were not taxed, firms selling only used goods would not be registered (technically, they would be exempted). Thus, value-added tax would apply to their inputs and thus to a portion of their value added. But, as noted, most used goods dealers sell some new goods as well. They are therefore registered. To attempt to require them to segregate inputs between new and used goods (electricity, for example) would be impossible except in some very arbitrary way. Yet, to allow them to obtain full credit for tax paid on all inputs against the tax due on their sales of new goods would give them a competitive advantage over firms that handled only used goods, unless the latter were allowed to register voluntarily.

5. A more serious problem is that the used goods dealers do add value to the goods they handle. The extreme case is that of motor vehicle dealers who often perform substantial work on the vehicles before reselling them. But if the selling price is taxable, no tax credit on the purchase would be available to the dealer. Yet to free

the sale completely from value-added tax would allow current value added and consumption expenditures to escape taxation. There are two alternatives to this problem:

(a) Disallow the credit for value-added tax paid on the inputs for the repair work. This would allow the labor, the chief element in many repair jobs, to escape taxation, but at least the parts would be taxed. But this would require the dealer to segregate inputs between those used for repair of goods for resale and those used in direct repair work for customers. This would be a major complication.

(b) Allow the dealer to assume that 10 percent (assuming a 10 percent value-added tax rate) of the purchase price of the used car or other used goods (the trade-in allowance when the good was obtained as a trade-in on the purchase of another item) constitutes the value-added tax element on the purchase, and to take credit for this against the tax due on the sales, along with tax on the other inputs. This is somewhat arbitrary, but would appear to be the most satisfactory approach.

Quite apart from repair, all second-hand goods dealers add value; the amounts are typically smaller, of course, where no repair work is done. This suggests the desirability of registering all firms selling used goods (not individuals selling casually), requiring them to pay value-added tax on their sales, and allowing them to take credit for tax paid on their purchases under the assumption that 10 percent of their purchase prices consists of the value-added tax element. In a rough way, this reaches the value added they have created. How they bill their customers for the tax would be left to the firms.

6. Trade-in allowances. A related question is the tax status of trade in allowances, which are, of course, highly important in the sale of consumer durables. Does value-added tax apply to the total sale price, or the net price after deduction of trade in allowances? The actual consumption expenditure involved is the net price after trade-in allowance, not the gross; the buyer has not completely utilized all of the traded-in article, on which he has paid value-added tax, and to pay tax on the gross price would involve paying value-added tax twice on the same sum. From the standpoint of the seller, likewise, the amount received on the sale is the price actually paid, that is, net after trade-in. The dealer has also received a used good for which he has "paid," essentially the amount of the trade-in allowance. If eventually he sells the traded-in good, under the rule proposed above he would apply tax to the selling price and then deduct 10 percent of the amount of the trade-in allowance granted as reflecting the value-added tax element in the purchase.

7. Summary. There is no ideal solution to the used goods problem. There is no possibility of applying value-added tax to transactions between individuals without hopelessly complicating the tax and increasing tax administration and compliance costs. General application of the tax to the full selling price of used goods would be contrary to the principle of a consumption tax, assuming that prices

of used goods reflect value-added tax paid on the original purchase. Full taxation of used goods would likely make the tax more regressive because of the importance of used goods in the expenditure patterns of the poor.

It is, however, undesirable to lose the revenue from the substantial labor performed on used cars before their resale and on other elements of value added by used goods dealers. Thus, the most workable solution would be to register all used goods dealers, and allow all sellers of used goods to assume that 10 percent (if the tax rate is 10 percent) of the price of acquiring the used goods represents the value-added tax in the purchase price. Used good dealers would be allowed to credit this tax against the tax due on their sales.

B. Sales of Used Business Assets

A related question is whether there are problems with the sale of used business assets between registered firms that would require special treatment under a value-added tax, comparable to those with used consumer durables.

Generally, the answer is no. For example, suppose that a business firm buys a turret lathe in 1988, paying value-added tax to its supplier and crediting the amount of the tax on the purchase of the lathe against the tax due on its sales. In 1994, the firm which purchased the lathe decides to sell the lathe to replace it with a more modern one. It sells the used lathe to a new small manufacturer. The seller of the used lathe applies value-added tax, as on any sale. The business purchaser of the lathe, in turn, receives credit for this tax against the tax due on its sales during the period. On both the original and the subsequent sale, the tax and credit procedure serves to, in effect, free the lathe of value-added tax.

Suppose, instead, that on the subsequent sale the lathe is sold to someone who is not registered for value-added tax, for example a farmer or a hobbyist. In this case, the lathe has now become a consumption good. The seller would apply value-added tax, as it does to all sales, and collect it from the customer. The customer would not receive credit for the tax since it is not a registered firm. Accordingly, no distinction needs to be made by business firms between the sale of capital assets and sales from inventory; such distinctions are usually required under retail sales taxes. The sale of used capital assets can be treated in the same fashion as any other sale by registered firms under a value-added tax; there is no necessity of special treatment.

VII. Tax Treatment of Fringe Benefits

Fringe benefits, which are essentially substitutes for monetary compensation, have grown in importance in recent years because many are free of the income tax. In one sense, they constitute simultaneous earning of income and of consumption expenditures, which may be regarded as being made either by the firm or by the recipients.

Value-added tax should be paid on fringe benefits if the benefits are taxable when purchased in the usual fashion. The questions are: by whom should the tax be paid and on what value should it be based?

A. Forms of Fringe Benefits

Fringe benefits take a variety of forms, and precise uniform treatment for value-added tax purposes is impossible.

1. The employer may purchase commodities or services for the employees that would be taxable if purchased directly by the employees. Thus, the employer may purchase a gold watch for a retiring employee, pay for dinners for executives or other employees, buy television sets to give to sales persons exceeding their quotas, or provide tours to Hawaii for employees and their spouses.

There are two general approaches to ensuring that value-added tax applies in this case. The first is to require the firm to include the sale value of the benefits in its own sales and to pay value-added tax on that value. It would, of course, be entitled to a credit for tax paid on the purchases related to the benefits. The second is to deny the firm a credit for value-added tax paid on the purchase of the goods provided as fringe benefits or on the inputs used by the firm to produce the benefits. This second approach, which is the simpler method, in effect, would treat the firm as the consumer of the fringe benefits. Whether the value-added tax should be charged to the recipient of the benefits is a separate issue; it is not a matter of tax policy, but an internal matter between the firm and its employees. Generally, the firm would not charge the recipient for the tax on the benefits. If the employees had been given money instead, they might not have acquired the goods at all and charging the employee for the tax would be contrary to the general intent of many fringe benefits.

2. The second situation is that in which the firm provides to its executives or other employees, either free or at substantial discount, commodities which the firm produces. In principle, the same rule should be followed as in (1) above: the firm should not be allowed a credit for value-added tax paid on the inputs used to produce the commodities. But disallowance is virtually impossible, as the inputs cannot be effectively segregated to isolate those that are used to produce the items that are provided as fringe benefits. This is particularly true of the cost of capital equipment and buildings used in the production process. In this instance, the best solution would appear to be the one that is used with retail sales taxes: the firm must include in taxable sales, at their commercial sales value, the value of the goods given to employees or used by the proprietors. Again, whether the employer withholds this sum from the employee's pay is essentially an internal matter between the employer and employee.

Suppose, however, that the firm does not give the items to employees, but sells them at an employee discount. This is a very common practice, but so are numerous other discounts to the elderly, to members of various organizations, and the like. It would not be

worthwhile to attempt to adjust the taxable price upward by the amount of this discount; value-added tax should apply--and presumably be collected from the employee--on the basis of the actual selling price, as long as the discount does not exceed a certain percentage (to prevent the avoidance of value-added tax by selling at a 99 percent discount).

3. A third case, related to the second, is that in which the firm provides certain services free or at substantial discount to its employees and the services are of such a nature that providing them to the employees does not require any additional inputs. The principal case is free plane trips for airline employees, available only when space is not purchased by customers. Since application of the tax in this instances would reduce the use of this service, though it has no economic cost, value-added tax should not be imposed.

4. A final case is that in which the firm provides various goods for the use of some of its employees, typically its executives, such as company cars. Workers may be provided lounges with television sets. It is very difficult to draw the line between the provision of vehicles as a necessary element in the operation of the business and the provision of them as consumption goods. One solution, when the firm provides automobiles or other goods (e.g., television sets, personal computers) for the exclusive personal use of particular employees would be to require the firm to include in its taxable receipts the sale price or rental value of the items.

Since automobiles are the chief category involved, the alternative is to deny the credit for all tax arising from purchase of automobiles, as is done in some EEC countries. This may be somewhat drastic, as many firms must of necessity provide cars for employees' use in the business operation (telephone companies, for example). A difficult delineation is that between automobiles and pickup trucks and related vehicles. But general denial of credit on automobiles should be considered.

B. Summary

As under the income tax, fringe benefits create difficult problems with a value-added tax. The following, necessarily imperfect, solutions are recommended:

1. In principle, if a particular commodity or service that is ordinarily taxable is provided an employee and if the employee would purchase the item if given money income instead, value-added tax should apply. Most instances, however, in which fringe benefits are provided are not this straightforward.

2. When goods are purchased by a firm for the specific purpose of giving them to employees, the firm would be denied credit for tax paid on the purchases.

3. When a firm gives goods that it produces to its employees, it would apply value-added tax at the typical price at which it sells these goods. Whether it bills the employee for the tax is an internal matter for the firms.

4. When the firm sells at an employee discount to its employees, the tax would apply to the discounted price, as long as the discount does not exceed a specified percentage.

5. When a firm provides a service to an employee that requires no additional inputs, value-added tax would not apply.

6. There is merit in disallowing the credit for value-added tax paid by a firm for meals and drinks under all circumstances. The same policy should be considered for automobiles.

Chapter 7

VALUE-ADDED TAX BASE

The projected 1988 level of total personal consumption expenditure is about $3,100 billion; therefore, each percentage point of a value-added tax levied on this total would yield about $31 billion. In fact, as explained in Chapter 6, a realistic value-added tax base would be well below this, because of the difficulty or inadvisability of taxing certain items of consumer expenditure. Drawing on the recommendations in Chapter 6, this chapter describes some alternative value-added tax bases.

The rental value of owner- and tenant-occupied housing constitutes about one-sixth of total 1988 personal consumption expenditure. In the case of owner-occupied housing, the rental figure is an imputed amount or a measure of what the housing would rent for on the open market. Since it would not be practical to apply a value-added tax to this amount, the rent on tenant-occupied housing would not be subject to a value-added tax either. As shown in Table 7-1, exempting the rental value of all housing would remove $460 billion from the 1988 base. Since housing rents would be exempt, rather than zero rated, no credit would be allowed for value-added tax paid on expenditures for repair and maintenance. Applying the value-added tax to sales of new housing, plus repairs and alterations would add $170 billion to the tax base, since these items are not reflected in the total of personal consumption expenditure.

A number of other items of personal consumption expenditures would also be at least partially excluded for a variety of reasons. For these categories, recall the important distinction between exemption and zero rating. With exemption, no value-added tax would apply to the sale of the exempt good or service, but no credit would be allowed for tax paid on items that were purchased to produce or provide the exempt good or service. An exempt good or service, therefore, bears some value-added tax, namely the tax on the purchased inputs used to produce it. Zero rating, on the other hand, totally frees a good or service from value-added tax. No tax applies on the sale, and a full credit or refund is allowed for tax paid on purchased inputs.

Additional exclusions from personal consumption expenditure to arrive at the comprehensive base include the services of physicians, dentists, and other health professionals, which would be exempt and hospitals, education, and religious and welfare activities, which would be zero rated. As noted in Chapter 6, this treatment is necessitated by a combination of social and distributional considerations.

Table 7-1

ESTIMATE OF VALUE-ADDED TAX BASE

($ Billions)

1988 Levels of Expenditures

Total Personal Consumption Expenditures			$3,127
Less:	Rental value of owner- and tenant-occupied housing (including farms)	460	
	Medical care (including health insurance)	232	
	Insurance and finance (other than health insurance)	74	
	Education	48	
	Religious and welfare	47	
	Foreign travel	13	
	Local transportation	8	
	Other: Food produced and consumed on farms, military-issued clothing, domestic services)	7	
			- 889
Plus:	Sales of new housing		170
Comprehensive Value-Added Tax Base			$2,408

Primarily because of the administrative difficulty of measuring value added, banking and insurance would be exempt, except for those activities for which there is an explicit charge, such as the rental of safe deposit boxes. Expenditures for foreign travel also would be excluded from the base (zero rated) for administrative reasons. (Expenditures by foreigners traveling in the United States would generally be subject to tax.) Both local transit service and commuter rail transport, which are frequently subsidized, would be zero rated to encourage their use. Taxi service, on the other hand, would be exempt for administrative reasons. All of the exclusions which are used to arrive at the comprehensive value-added tax base of $2,408 billion (at 1988 levels of expenditure) or 77 percent of total consumption are listed in Table 7-1.

It would be preferable not to exclude food consumed at home from the base, if an alternative for lessening the burden of the tax on the poor were available. If, however, it is decided to exclude food, zero rating of food would reduce the base by an additional $349 billion to $2,059 billion or 66 percent of total consumption. Zero rating of sales of new housing, prescription drugs, and household energy expenditures for electricity, gas, fuel oil, and water and sanitation services would reduce the base further to $1,713 billion or 55 percent of total consumption.

Chapter 8

DISTRIBUTIONAL EFFECTS OF THE VALUE-ADDED TAX

I. Introduction

The most frequent criticism of a value-added tax, as of any sales tax, is that the distribution of the tax burden by income group would be unfair. As noted in Chapter 5, two aspects to this criticism can be identified: (1) the absolute burden of a value-added tax on low income individuals and families, and (2) the relative burden of the value-added tax at various income levels.

A comprehensive or broad-based value-added tax imposed at a uniform rate, the type described in Chapter 7, would place a significant tax burden on low income groups. Moreover, it would be regressive; that is, the amount of tax paid as a percentage of income would be greater at the lower income levels than at the higher because individuals at low income levels consume a larger percentage of their income than those at higher income levels. Moreover, persons in the higher income groups spend a higher percentage of their incomes on services, some of which, such as expenditures on foreign travel, education abroad, and personal services rendered in the home, cannot be reached by a value-added tax.

II. Some Underlying Assumptions

The view that a value-added tax would burden the poor and be regressive is based on the standard assumption that the tax would be shifted forward to consumers through price increases. If a value-added tax causes a direct and uniform increase in costs affecting all competing firms, immediate price increases can be expected under usual pricing conditions and methods, given a monetary policy that permits or "ratifies" these price increases.

A general increase in the price level can occur only if the appropriate accommodative adjustments occur in the total supply of money (or its velocity). In the face of an unchanged nominal or money value of the gross national product, the price level cannot rise in response to the tax, and either wages and other factor incomes or the level of output must decline. It is reasonable to assume that to prevent any decline in real output, the monetary adjustments necessary to allow firms to pass the tax forward will be made. Accordingly, the tax burden can be assumed to rest "on consumers" in the sense that it would be proportional to consumer spending on goods and services included in the taxable base.

Another underlying assumption (sometime implicit) is that the appropriate basis for comparing value-added tax burdens among various individuals and families is current income. Some experts criticize this approach on the grounds that lifetime or "permanent" income,

rather than the current year's income, should be used to measure a family's living standard over its lifespan. On a lifetime income basis, a value-added tax would be less regressive, and perhaps even proportional, because consumption tends to be a uniform proportion of lifetime or permanent income at all income levels, except for those who leave estates and thus do not consume all of their lifetime income. In any particular year, however, for families in a given income class, current income may differ from permanent income because of: sudden and unexpected windfalls, such as the receipt of gifts or bequests; reduced earnings caused by the temporary loss of employment or illness; or youth or old age.

To the extent that consumption is determined by permanent, rather than current income, consumption will not be a constant percentage of current income at all levels. In any given year, for example, low-income families may have consumption expenditures in excess of their income for that year, and high income families may consume less than current income. Thus, the regressivity of the tax is probably overstated with reference to current income. Still, it is the current year's income that in large part determines the current living standard and the sum out of which most taxes are paid. Moreover, the current year's income is usually regarded as the most practical basis for the comparison of value-added tax burdens at various income levels. Despite its limitations, it is used in this chapter.

III. The Alternative Solutions

Whether the absolute burden of a value-added tax on the poor and the regressivity of the tax are objectionable is, in the first instance, a value judgment. Nevertheless, most would agree that the poor should not be subjected to any significant tax burden and that the overall distribution of the Federal tax system should not be regressive. Of these two elements, the absolute burden of the value-added tax on the poor is the more serious problem, since the tax would deprive those persons of the income necessary to maintain a minimum standard of living. In comparison, the regressivity of a value-added tax over other income ranges can be offset by adjustments in the income tax rates; a progressive tax structure does not require each of the taxes in that structure to be progressive or even proportional. This chapter considers four alternatives for dealing with the problems of the burden of the tax on low income families and its regressivity. In evaluating these alternatives, the distributional effects are based on 1983 levels of income and patterns of spending, and the expenditure and revenue effects of the alternatives are based on 1988 levels of income and expenditure. (As explained in Chapter 9, the Internal Revenue Service considers 1988 to be the first full year for which a value-added tax could be effective.)

The distributional results and figures presented in this chapter are classified by family economic income class. As explained in Appendix 4-A to Volume 1, Overview, economic income is a comprehensive measure of income that is intended to approximate the standard definition of income, consumption plus changes in net worth. It includes

forms of income that are not subject to tax, such as tax-exempt interest from state and local bonds and government transfer payments. It also measures more accurately certain other forms of income, such as real interest income. This broader measure of income, therefore, provides a better yardstick than adjusted gross income for evaluating the abilities of families to pay taxes and for comparing tax burdens by income class. (The small number of families with negative economic income are excluded from the results because this unusual situation, typically associated with large capital or operating losses, is not relevant for assessing the distributional burden of the value-added tax.)

A. Adjustments in Transfer Payments

Some government-provided transfer payments, such as social security and food stamps, are automatically indexed to reflect changes in the cost of living. If imposition of a value-added tax caused the price level to increase, the indexed transfer payments would also rise to adjust for the effect of the tax on prices. Under the indexing provisions of current law, the burden of the value-added tax on low income families would be reduced by the automatic adjustment of transfer payments. This alternative would not eliminate the burden of the tax on those low income families who received either no or only modest amounts of indexed transfers.

In 1983, there were nearly 14 million families and individuals with economic incomes below $10,000. Of these, 12 million received some form of governmental transfer payments; 2 million did not receive any transfer payments. Almost 10 million of these families and individuals received one or more types of benefit that is already indexed for cost of living changes; the effect of the value-added tax on prices would automatically be reflected in higher benefits under these programs. Approximately 2 million families and individuals with economic incomes less than $10,000 received only non-indexed transfer payments. Therefore, a total of 4 million of these low income households would not benefit from the automatic indexing of transfer payments.

Social security payments are the most widespread of these indexed transfer payments, going to 7 million families and individuals, or one-half of those with economic incomes below $10,000. Other indexed programs are food stamps, supplemental security income, and government pensions; these programs reach a total of 7 million low income units, over half of which also receive social security benefits. Not all government income maintenance systems are indexed, including some programs financed at least in part by the Federal government, such as unemployment compensation and aid to families with dependent children, as well as direct welfare relief provided by state and local governments. While these nonindexed transfers could conceivably be adjusted to reflect the effect of the value-added tax on prices, this would involve additional expenditures by state and local, as well as the Federal, government.

Since only about 80 percent of consumption expenditures would be subject to the broad-based tax, it can be expected that a 10 percent value-added tax would cause the consumer price index (CPI) to rise by about 8 percent. The distributional consequences of indexing transfer payments are illustrated in Table 8-1 and Figure 8-1 for a 10 percent value-added tax. The percentages show value-added tax payments as a percent of economic income for various economic income classes. For expositional convenience, illustrations of distributional effects are calculated for a 10 percent value-added tax. For lower rates of tax, monetary magnitudes would be correspondingly lower. For purposes of comparison, the distributional effects of a broad-based or comprehensive value-added tax of the type described in Chapter 7 levied in the absence of indexing are also shown. It is important to emphasize that this indexing of transfer payments would be automatic under current law. Thus, barring any change in current law indexing provisions, the bottom line in Table 8-1 and Figure 8-1 may be a more accurate description of the actual distributional burden of a broad-based value-added tax than is the upper line. The indexing of transfer payments would reduce, but not eliminate, the burden of the value-added tax on low income families and individuals. This is true because not all low income families receive indexed transfers, and in any given year, some low income families have consumption expenditures in excess of their income. As shown in the last column of Table 8-1, the indexing of transfers under current law would absorb about 11 percent of the revenue from the comprehensive value-added tax.

B. Zero Rating of "Necessities"

Though many studies of distributional burdens have shown that a broad-based sales tax is regressive if levied at a single rate, a 1981 study by the Organisation for Economic Cooperation and Development, "The Impact of Consumption Taxes at Different Levels of Income," shows that the value-added taxes in seven European countries, with their exclusions and multiple rates, are generally not regressive, except at high income levels. Even the comprehensive value-added tax base described in Chapter 7 does not include all consumer expenditures on goods and services; rents on residential housing, for example, would be excluded from the tax base. A second alternative for reducing the burden of the tax on low income families would exclude additional goods and services from the tax base. If this approach were used in combination with the indexing of transfers, it would provide some families and individuals with more relief than others. That is, zero-rating would eliminate tax on some goods for all taxpayers. Indexing of transfers would insulate transfer recipients from the burden of tax on goods that are not zero-rated. Thus, zero rating of commodities might be done in lieu of adjusting transfers. To prevent transfers from being indexed to reflect the value-added tax, the tax would have to be excluded from the consumer price index used for indexing transfers.

This alternative would identify those taxable commodities on which lower income families and individuals spend a large proportion of their income and remove those expenditures from the tax base by zero

Table 8-1
Distribution of Value-Added Tax Burden:
Broad-Based Tax and the Effect of Indexing Transfer Payments
(Tax Rate of 10 Percent)

	Family Economic Income Class (in thousands of dollars) 1/								
	$0 - 10	10 - 15	15 - 20	20 - 30	30 - 50	50 - 100	100 - 200	200 & over	Relative cost of indexing transfers 2/
	(Value-Added Tax Paid as a Percent of Economic Income)								
Value-added tax on broad base without adjustment of indexed transfers...	14.2	9.2	7.5	6.1	5.0	3.9	3.0	1.8	--
Alternative:									
Value-added tax on broad base with adjustment of indexed transfers...	9.6	6.9	6.0	5.2	4.5	3.6	2.9	1.8	11.0

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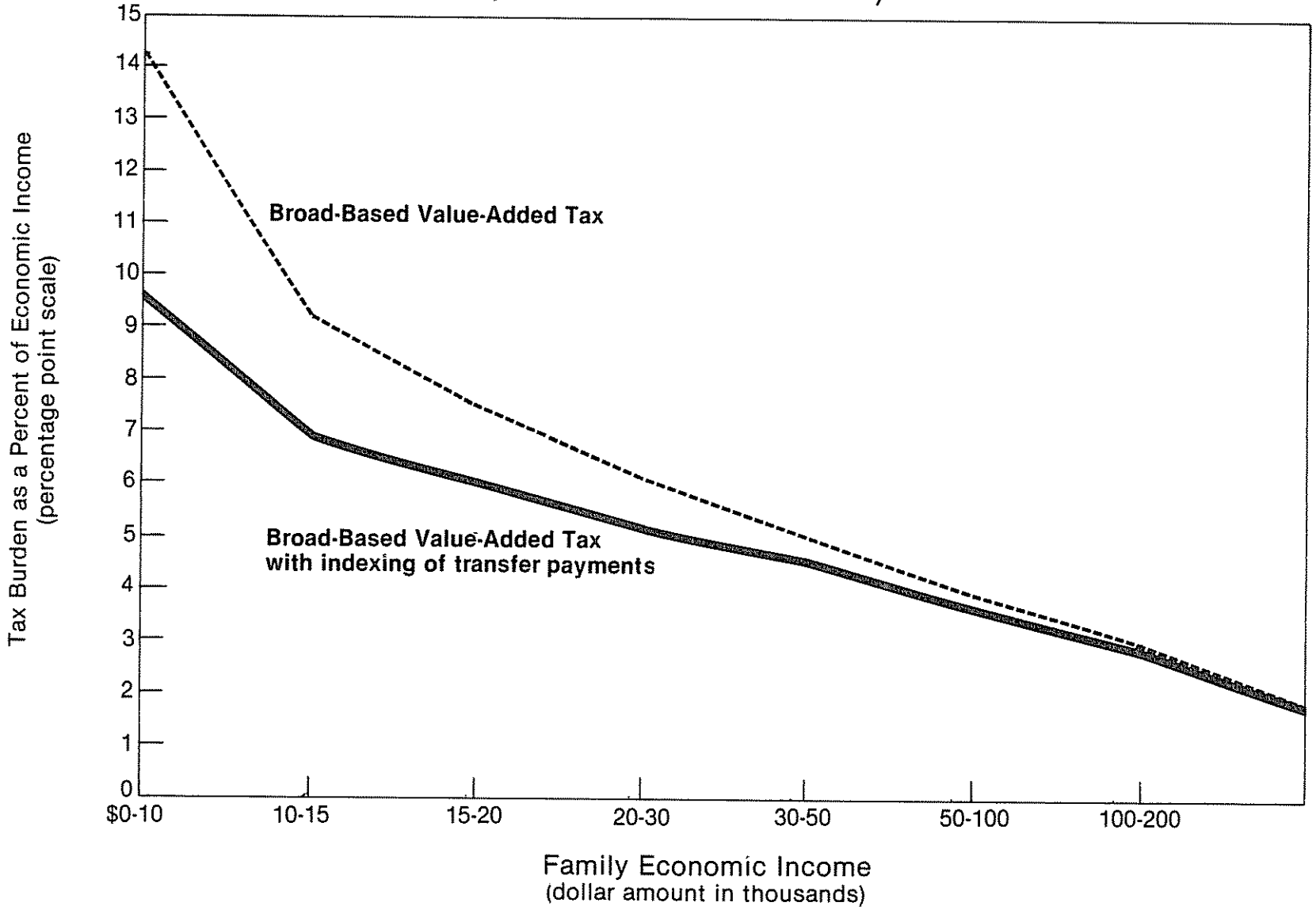
1/ Restricted to families with nonnegative income.

2/ The cost of the indexing alternative is expressed as a percentage of the revenue from a value-added tax on the comprehensive base (as described in Chapter 7) at 1988 levels.

Figure 8-1

EFFECT OF INDEXING TRANSFER PAYMENTS ON THE DISTRIBUTION OF VALUE-ADDED TAX

(Tax Rate of 10 Percent)



rating them. That is, no tax would be charged on their sale, but the firm selling the zero-rated commodities would be entitled to a credit or refund for the tax paid on its purchases that are related to the production and sale of the zero-rated commodities. Thus, the zero-rated commodities would be freed of any value-added tax. Consumer expenditures on the goods and services identified in the remainder of this section are regressive; that is, as a percentage of income, expenditures decline as income rises. Zero rating these items would reduce both the burden of the tax on lower income groups and the regressivity of the tax.

1. **Food.** More than one-half of the states exempt food prepared at home (but not restaurant meals) from retail sales taxation. With a retail sales tax, of course, exemption frees the exempt item of all retail sales tax. Expenditures on food prepared at home exhibit a regressive pattern, constituting a higher percentage of income in the lower income groups than in the middle and upper income levels. On the basis of data derived from the Bureau of Labor Statistics, 1980-1981 Consumer Expenditure Survey (hereafter referred to as the CES), families with economic income of less than $10,000 spent 32 percent of their before-tax income on home-consumed food. Thus, zero rating of home-prepared food would remove a substantial portion of the burden of the value-added tax from the families in the lowest economic income group. By comparison, those with economic income between $20,000 and $30,000, spent 11 percent, and those with economic income of over $200,000 spent less than 1 percent of their income on home-prepared food. The effect of zero rating expenditures on food is illustrated in Table 8-2 and Figure 8-2. For purposes of comparison, the distributional burden of a broad-based value-added tax with no indexing is also shown.

Though, the exclusion of food would address some of the distributional objections to a broad-based value-added tax, there are a number of difficulties with this approach that policy makers should consider:

(a) Excluding food would substantially reduce the revenue yield of the tax. State experience with retail sales taxes indicates that the states lose from 15 to 20 percent of their sales tax revenue if food is exempt; zero rating of food would reduce the base of a Federal value-added tax by about $349 billion at 1988 levels of expenditures, or, according to the last column in Table 8-2, by about 14 percent of the comprehensive base described in Chapter 7. Excluding food has a relatively larger impact on the states' tax base because, unlike the value-added tax described in Chapter 7, most state retail sales taxes do not include services. Because zero rating of food removes the food expenditures of the middle and upper income groups from the tax base, as well as the expenditures of the poor, much of this erosion in the base is unnecessary to achieve the objective of lessening the burden of the tax on lower income families and individuals. Nearly 90 percent of the erosion in the base is from expenditures on food by those with economic incomes above $10,000. By comparison, this group accounts for 92 percent of all consumption.

Table 8-2
Distribution of Value-Added Tax Burden:
Broad-Based Tax and the Effect of Zero Rating Food and Other Expenditures
(Tax Rate of 10 Percent)

	Family Economic Income Class (in thousands of dollars) 1/								
	$0 - 10	10 - 15	15 - 20	20 - 30	30 - 50	50 - 100	100 - 200	200 & over	Relative cost of zero rating 2/
	(Value-Added Tax Paid as a Percent of Economic Income)								
Value-added tax on broad base without adjustment of indexed transfers...	14.2	9.2	7.5	6.1	5.0	3.9	3.0	1.8	--
Alternatives:									
1. Value-added tax on broad base without adjustment of indexed transfers and with food prepared at home zero rated.....	11.0	7.3	6.0	5.0	4.1	3.3	2.7	1.8	14.5
2. Value-added tax on narrow base without adjustment of indexed transfers 3/.....	8.9	5.9	4.8	4.1	3.3	2.7	2.3	1.7	28.8

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1/ Restricted to families with nonnegative income.

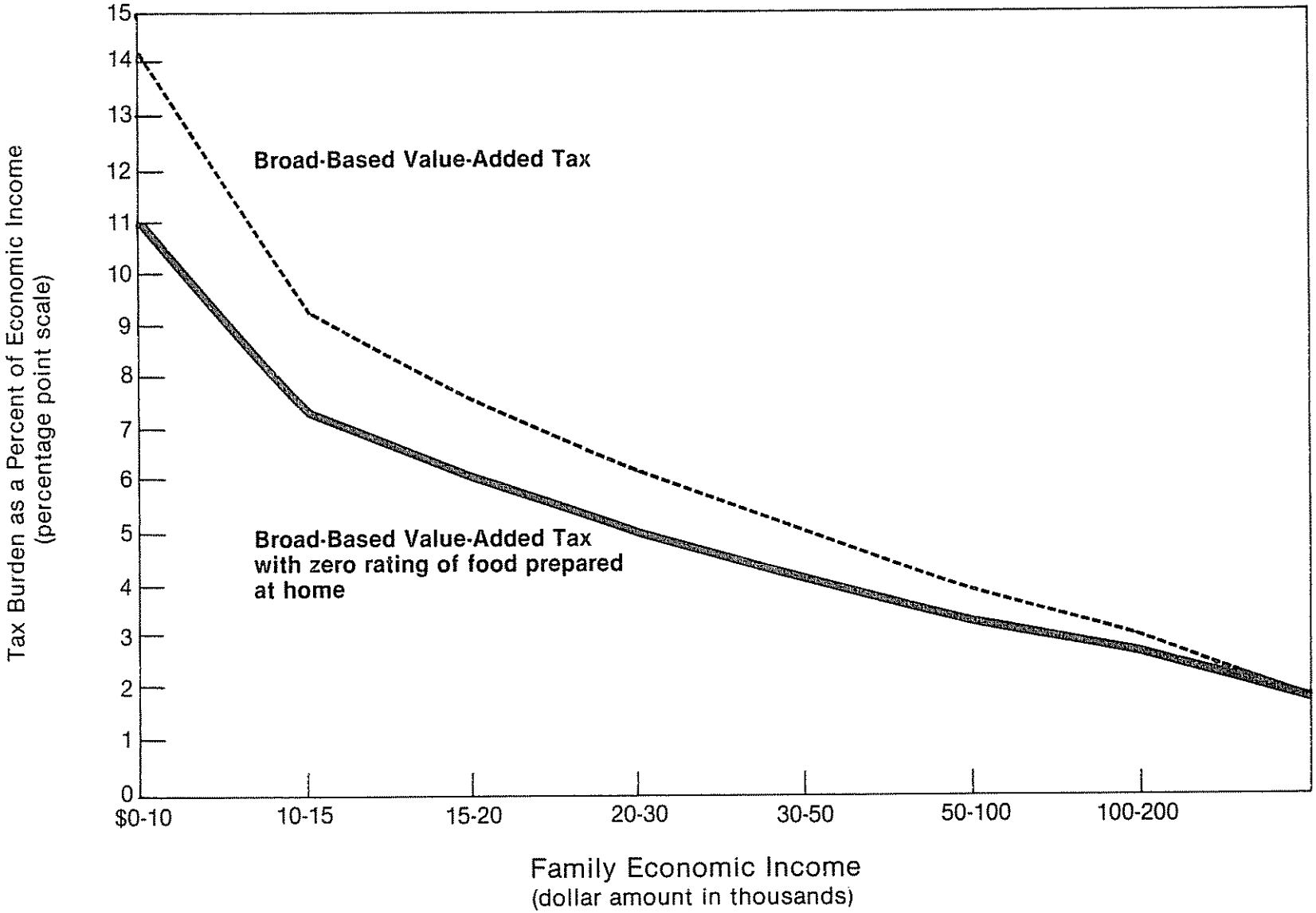
2/ The cost of zero-rating is expressed as a percentage of the revenue from a value-added tax on the comprehensive base (as described in Chapter 7) at 1988 levels.

3/ Narrow base provides for zero rating expenditures on home-prepared food, new housing, prescription drugs and medicine, household energy, and water and sanitation services.

Figure 8-2

EFFECT OF ZERO RATING FOOD ON THE DISTRIBUTION OF VALUE-ADDED TAX BURDEN

(Tax Rate of 10 Percent)



(b) Zero rating of food would favor those individuals and families with relatively strong preferences for food, and it may create economic distortions by increasing purchases of food relative to those of taxed goods.

(c) Even if home-prepared food is exempt, restaurant meals are almost always taxed under state retail sales taxes. A few jurisdictions, however, exempt meals below a certain price. But drawing the line between a restaurant meal and home-prepared food is very troublesome, particularly with the popularity of fast food takeout restaurants and delicatessen and prepared food departments in grocery stores. The argument for taxing restaurant meals is that commercially-prepared meals involve "luxury" spending. Actually, according to the SASS-based estimates, spending on restaurant meals also exhibits a regressive pattern by income class, though it is less regressive than expenditures for food prepared at home. A policy of excluding only restaurant meals below a certain price would be arbitrary and would create problems with billing customers. For example, would separate bills be required for each member of a group eating together to take advantage of the exclusion? The problems with restaurant meals illstrate the inherent objections of trying to solve the regressivity problem by excluding certain categories of expenditure from the value-added tax.

(d) Zero rating of food would materially complicate the administration and operation of a value-added tax. The distinction between zero-rated food purchases and other taxable commodities is not clear cut. There inevitably would be problems of delineating food from other commodities. For example, there is no sharp distinction between soft drinks, which might be taxable, and various fruit juices and drinks, which might not be. If ice cream is taxable, it may be difficult, and inappropriate, to differentiate it from tax-exempt frozen yogurt. Zero rating of food would raise many borderline issues of this sort. In each case, the tax administrator must specify the dividing line between taxable and non-taxable commodities and the food store clerk must be aware of these distinctions if the proper amount of tax is to be charged.

(e) In addition to these delineation problems, the compliance problems of sellers and the control problems of the Internal Revenue Service (IRS) would be substantially increased by zero rating of food. Very few stores sell only food items. If food were zero rated, large supermarkets would have to ensure the correct application of the tax at the cash register, and they would be required to keep separate records of food and nonfood sales. There would be a tendency for firms to overstate the portion of total sales consisting of food, and the audit task of the IRS would be made more difficult. State experience with the retail sales tax indicates that checking on the food exemption absorbs a substantial portion of the time of sales tax auditors.

2. **Zero rating of other commodities.** As shown by Table 8-2 and Figure 8-2, zero rating of food would not remove the entire value-added tax burden from the lowest income groups. According to the estimates from the CES, approximately two- thirds of the expenditures of the families with economic incomes under $20,000 consists of purchases of goods and services in the comprehensive base other than home-prepared food. The burden on low income groups could be reduced further by excluding three other categories of consumer expenditures.

(a) Housing costs. As noted in Chapter 6, housing expenses cannot be fully taxed because of the inability to reach imputed rent on owner-occupied housing. Since residential rents on either tenant-occupied or owner-occupied housing would not be taxed, the burden of the broad-based value-added tax on the poor would be less than what it would be with full taxation of housing rents. The comprehensive value-added tax base described in Chapter 7, however, does include purchases of newly-constructed, as well as renovated, housing. Complete exclusion of all housing costs, including those of new construction and renovation, would reduce the burden on the poor still more. This could be accomplished by zero rating sales of newly-constructed housing and the repair and renovations of existing housing. As with zero rating of food, however, this reduction in the tax base would be at the expense of a substantial loss of revenue from expenditures by persons in the middle and upper income groups and would cause inequity and economic distortions. Zero rating the sales of new housing would reduce the value-added tax base by about $170 billion, or 7 percent of the comprehensive base. About 94 percent of the revenue loss issueated with this base erosion would be from expenditures on new housing (plus repair and renovation) by those families with economic incomes above $10,000.

(b) Drugs and medicines. Though most medical care would be either zero rated or exempted even under the comprehensive value-added tax base, zero rating of prescription drugs and medicines would further reduce the burden of the value-added tax on low income families. Zero rating of prescription drugs and medicine, which would reduce the tax base by about $16 billion, would create fewer compliance and administrative problems than in the case of food because this category is clearly delineated by the need for a physician's prescription.

Zero rating of nonprescription drugs, however, would create troublesome operational problems. Nonprescription medicine is sold by a great variety of stores handling other goods as well, and it is not clearly delineated from other commodities. State and local governments that have exempted nonprescription drugs from retail sales taxation have encountered both compliance and audit problems.

(c) Energy, water, and sanitation services. Consumer spending on electricity, gas, fuel oil, and water and sanitation services could also be zero rated; of course, this would conflict with recent proposals for an energy tax, either to raise revenue or discourage the consumption of energy. For those families with economic income of less than $10,000, this category of expenditures represents about 6

percent of total consumption expenditures. Zero rating of expenditures on these items for all consumers would reduce the value-added tax base by about $160 billion or by 7 percent of the comprehensive base; about 90 percent of the revenue loss associated with this base erosion would be from those families with economic income above $10,000.

The bottom line in Table 8-2, as well as Figure 8-3, illustrates the distributional effects of zero rating expenditures on home-prepared food, new housing, prescription drugs and medicines, household energy, and water and sanitation services. The effect of zero rating these expenditures is to reduce substantially the burden of the tax on those with economic income below $10,000 and to reduce, but not eliminate, the regressivity of the value-added tax.

In general, any attempt to lessen the absolute burden of a value-added tax on the poor and reduce the regressivity of the tax by excluding various categories of goods and services from the tax cannot fully solve the equity problem, and almost inevitably would cause discrimination, loss of economic efficiency, and unnecessary loss of tax revenue. As shown in the last column in Table 8-2, zero rating the expenditures discussed in this section would reduce the revenue from a comprehensive value-added tax by nearly 30 percent. It would materially complicate the tasks of both taxpayers and the IRS, and perhaps pave the way for evasion of the tax.

C. Reimbursement for Value-Added Tax

Under another alternative for lessening the burden of the tax on the poor, no effort would be made to zero rate the purchases of necessities under the value-added tax. The value-added tax would apply to the comprehensive base of consumer expenditures, as described in Chapter 7. The burden of the value-added tax on the poor would be reduced by reimbursing those at the lower income levels for a specified amount that would be roughly equal to the amount of value-added tax paid. The objective would be to free from the value-added tax the consumption necessary to sustain a minimum standard of living. Minimum or essential consumption could be defined by reference to the poverty income level. In other words, the poverty level of income could be considered to be equivalent to the consumption required to attain a minimum standard of living.

This approach would be an alternative to the indexing of transfers; that is the effect of the value-added tax would be excluded from the consumer price index used to index transfers. If transfer recipients were allowed a credit, on top of having transfers indexed, they would be left more than whole.

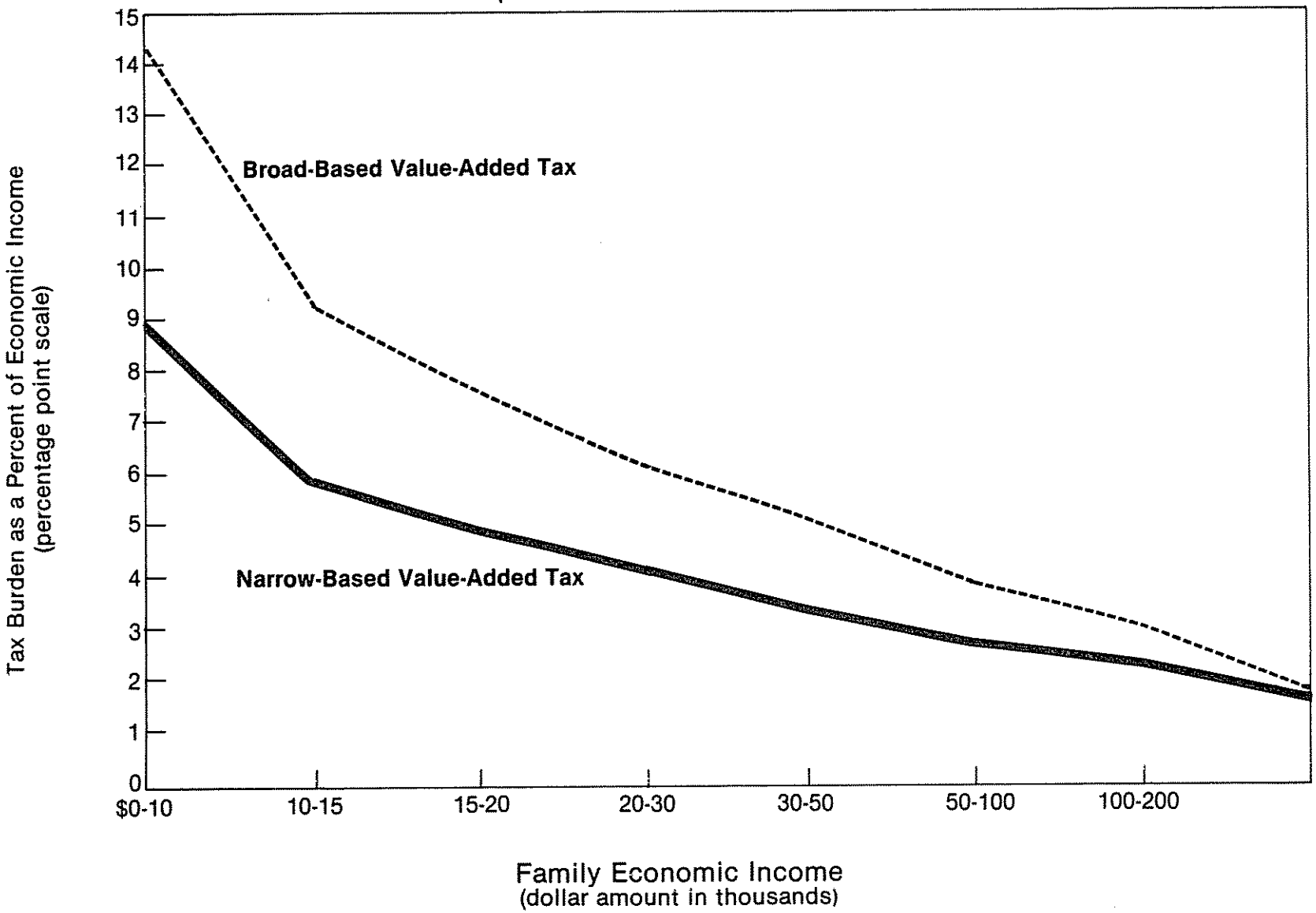
This reimbursement could be implemented in either of two ways:

(1) A credit could be provided against one's Federal income tax liability for a sum representing the value-added tax borne on the consumption necessary to sustain a minimum standard of living. This

Figure 8-3

COMPARISON OF TAX BURDEN RESULTING FROM BROAD- AND NARROW-BASED VALUE-ADDED TAXES

(Tax Rate of 10 Percent)



amount would be taken as a credit on Federal income tax returns in the same fashion as income taxes withheld and the earned income tax credits are credited against one's income tax liability.

If the amount of the credit exceeded one's income tax liability, it would be refundable, as is true of the earned income credit and of income tax withholding. Although a nonrefundable credit would reduce the regressivity of the tax in some income ranges, it would not help those persons below the tax threshold--basically those below the poverty line. These are the people whom the credit is intended to help.

The refundable credit approach is used by Hawaii, Massachusetts, New Mexico, Vermont, and Wyoming to lessen the burden of the sales tax. The credit system has been used in five other states to offset retail sales tax liability, but was replaced by a food exemption, apparently not because the system did not function well, but primarily because a food exemption had greater political appeal.

(2) Alternatively, it would be possible to alleviate the value-added tax on a necessary level of consumption by providing a system of refunds independent of the income tax. Kansas follows this approach, even though it has an individual income tax. A form separate from the income tax return is used to apply for the rebate. South Dakota, which does not have an income tax, uses this procedure as well.

Most of the state reimbursement systems apply to all persons, but some are restricted to the elderly. South Dakota, for example, restricts the refunds to persons 65 or older and to the disabled. Wyoming has similar restrictions. The state systems also differ in whether all persons receive the credit regardless of income, or only those below certain income levels. New Mexico, and, in the past, Colorado, Indiana, and Nebraska provided a flat credit for all individuals. Other jurisdictions either phase the credit out at income levels above a specified figure, or eliminate it at a given income level without a phaseout. In Hawaii, for example, the full credit ($48 per person in 1983) is given to persons with adjusted gross income under $5,000, but it is phased out between $5,000 and $20,000 of income in 10 intermediate steps.

Although it is by no means a problem-free solution, the reimbursement approach would avoid many of the problems that arise with the zero rating of commodities and services. If the reimbursement were targeted at the poverty level of income, most of the tax burden on essential consumption could be removed from persons in the lowest income groups, not merely a portion of it. To the extent that low-income individuals qualifying for the credit have consumption expenditures in excess of the poverty level of income in a given year, they would still bear some tax burden. If this is considered to be unacceptable, the reimbursement amount could be increased somewhat. From a budgetary perspective, the money necessary to pay for the reimbursement can be viewed as reducing the net amount of revenue generated by the value-added tax. If the reimbursement were phased

out, as income rises, the loss of tax revenue at the upper income levels would be avoided; if it were not phased out, the revenue loss would be roughly equivalent to that from zero rating food, new housing, prescription drugs, energy, and water and sanitation services. If the reimbursement were available to everyone, it would absorb about 25 percent of the revenue from a comprehensive value-added tax, as defined in Chapter 7. If it were phased out between the poverty level of income and 150 percent of that level, it would absorb only about 5 percent of the revenue. This is much cheaper than zero rating of essential commodities, or even indexing transfers. Though the reimbursement approach would avoid the compliance and audit problems created by zero rating of necessities, there are several issues that must be resolved.

(1) The amount of credit or refund to be granted must be determined. The poverty level of income for a family of four is estimated at $12,612 in 1988. (As explained in Chapter 9, 1988 is probably the first full year for which a value-added tax could be effective.) This level of income, in other words, would be necessary to finance the consumption to sustain a minimum standard of living. Since housing rents, medical and dental expenditures, and urban transportation, as well as other consumer expenditures, would not be included under even a comprehensive value-added tax base, about 77 percent of consumer expenditures would actually be subject to tax. For a family of 4, a credit of about $971 would be needed to remove the burden of a 10 percent value-added tax from essential consumer expenditures. The credit would be equal to the poverty level of income ($12,612) times the proportion of total consumption subject to the value-added tax (77 percent) times the tax rate (10 percent). A credit of about $325 for the household head plus $216 for each dependent (or two-thirds of the amount for the household head) would provide about the right measure of relief for the average four-person family.

(2) An adjustment must be made for the number of dependents. With the credit illustrated here, the additional amount for each dependent would be less than the primary amount, under the presumption that each additional member of the household would add less than a proportionate amount to the living expenses of the household and thus to the value-added tax burden. The simple credit illustrated here is based on the assumption that the consumption expenditures of each additional household member are about two-thirds those of the household head. Alternatively, an entire schedule of credits could be constructed based on the poverty levels of income for each family size or based on a structure similar to that of the zero bracket amounts and dependent exemptions proposed in Volume 1, Overview, for the income tax.

(3) A flat credit or refund without a phaseout would be simpler, but, as indicated above, would have a very substantial budgetary effect. If the credit or refund is phased out at higher income levels, questions will arise over the appropriate concept of income on which to base the phase-out. Logically, the figure should include adjusted gross income for Federal income tax purposes plus income

excluded from the Federal income tax, such as interest on state and local bonds and the untaxed portion of social security benefits. (A portion of social security benefits is now subject to Federal income tax if income exceeds certain levels.) Transfer payments and food stamps should also be included. Using a definition of income different from the definition for tax purposes, however, would be controversial and would cause complexity.

(4) The appropriate filing unit must also be determined under a reimbursement system. Ideally, it should be the consumption unit, usually a family. If the credit or refund for each additional household member is smaller than the amount for the household head, as suggested here, there would be a "marriage penalty." But it may be overly generous to allow the full credit or refund for two members of the same household. Some groupings of people are substantially different from the traditional family unit. For example, a group of single adults each of whom may file an income tax return, might be living together. Individually they would claim a larger total credit or refund than if a single return were filed for the household group, particularly if the credit or refund has a phaseout.

Several operational problems would arise under a reimbursement system:

(1) Additional income tax returns would be filed, or new refund requests would have to be processed by a new bureaucracy if the system is not integrated with the income tax. If the system were administered through income tax, the number of income tax returns would increase, as shown by state experience with credits designed to offset the retail sales tax. When the reimbursement provision was introduced at the state level, the number of tax returns increased by between 5 percent (Nebraska) and 15 percent (Massachusetts). A similar pattern developed in Canada, where the availability of refundable credits for dependent children increased the number of individuals filing tax returns to 130 percent of the labor force. Very simple returns could be provided for use by persons not otherwise required to file income tax returns. If refund requests were handled separately from the income tax, the number of the requests would depend upon eligibility.

(2) Some eligible individuals may fail to file to obtain the refund of value-added tax. Federal experience with the earned income credit indicates that about 8 percent of those eligible fail to claim the credit; in these cases, the Internal Revenue Service recomputes individual tax liabilities to allow for the credit, issuing a refund where necessary. The problem would be somewhat different under the value-added tax credit. Whereas the IRS can identify those who file returns that have not claimed an earned income credit for which they are eligible, the problem with the value-added tax credit would be to identify those who are eligible but file no income tax return. This problem has arisen in the states, and a number of reasons have been identified for it: lack of knowledge of the system; unwillingness to take the trouble; fear that filing may lead to questions about actual income and why income tax returns had not been filed. But, with

adequate publicity and the availability of relatively simple returns, this should not be a serious drawback, as the Canadian experience on refundable credits has shown.

(3) Minor problems have arisen in the states with some ineligible persons obtaining refunds, or persons receiving more than one refund.

(4) The availability of refunds would, under the phaseout approach, depend upon income; individuals therefore would be given an additional incentive to understate their income for income tax purposes.

Though a phaseout of the credit at higher income levels is desirable for both equity and revenue reasons, the marginal tax rate in the phaseout range would be increased over that of the income tax alone. As an individual's or family's income rose, the income would not only become subject to income tax on the extra income, but a portion of the value-added tax credit also would be lost. Consider the credit discussed here, which would be phased out between the poverty level of income and 150 percent of that level. A family of four with a poverty level of income of $12,612 would see the credit of $971 phased out by the time income rose to $18,918. Thus, if the family earns an additional $1,000 of income, its value-added tax credit would be reduced by approximately $154. The marginal tax rate associated with the declining credit on the additional $1,000 of income would be 15 percent. This would be in addition to the marginal income tax rate on that extra income. The combined marginal tax rate effects would be a disincentive to additional work effort. The effect would be even worse if the credit were equal to tax on consumption of 150 percent of poverty-level income, but phased out over the range between 100 and 150 percent of poverty-level income.

The credit intended to compensate low-income families and individuals for the value-added tax on their purchases would be over and above the earned income tax credit allowed under current law. It would be fully available to all families and individuals below the poverty level and would phase out only once income exceeds the poverty level. By comparison, the earned income tax credit is available only to those who work and have dependents. The Tax Reform Act of 1984 established that, for tax years beginning after 1984, the earned income credit increases with income until it reaches a maximum of $550 and then phases out to zero by the time income reaches $1,100. If only earned income were involved, the earned income tax credit would normally be fully phased out before the phase-out of the value-added tax credit began. This would be desirable to avoid the high marginal tax rates that would result from having both credits phase out simultaneously. If different definitions of income were used to calculate the two phase-outs, it would be possible that the two credits could phase out simultaneously. Care would be required to coordinate these two credits to avoid the adverse incentive effects of dual phase-out, as well as for administrative reasons.

Under a reimbursement approach, the value-added tax would be borne during the year on purchases of taxable goods and services, but the tax credit would not be refunded until the end of the year. By contrast, zero rating of goods and services, or the adjustment of transfer payments discussed below, would occur during the year. This problem is most pronounced when the system is first introduced and eligibility first determined, since once a reimbursement is made it can be used to fund tax liability on subsequent purchases. If, however, the delay is regarded as a serious problem, estimated payments could be made in the course of the year. The advance payment procedure is already used to provide the benefits of the earned income credit during the year. In general, this problem can be solved and is not a major objection to the plan.

Even though the earned income credit in current law is refundable to low income taxpayers, some may object that the use of a reimbursement plan to offset the value-added tax may be regarded as introducing a new family allowance or negative income tax system. A portion of the New Mexico system, which provides a tax rebate for low income individuals and families, is essentially this. Thus, it can be argued that a reimbursement of value-added tax would bring in by the back door a major change in the country's income maintenance system without adequate consideration. In other words, such a system should be debated on its own merits, rather than being introduced as an indirect consequence of a value-added tax.

The system would be similar to the refunding of the earned income tax credit under existing Federal law. Several of the states have used this approach for lessening the burden of the sales tax without kindling a debate over welfare reform. In Iowa, however, the political argument was made that the tax system was inherently undesirable for making direct money payments.

Table 8-3 and Figure 8-4 show the distributional consequences by income class of two refundable, phased-out credit plans. One would provide a credit based on the poverty level of income; the other a credit based on 150 percent of the poverty income level. Neither of the two credits illustrated here would eliminate entirely the value-added tax burden on the lowest income families, primarily because many families with income at or near the poverty level in a particular year have consumption expenditures in excess of that income. A credit based on an amount in excess of the poverty level might be justified on the basis of consumption exceeding income at the low-income levels. Each of the credits illustrated here would be phased out between the poverty level of income and 150 percent of that level. The last column of Table 8-3 also shows the budgetary effect of each of the credits as a percent of the revenue from the broad-based value-added tax. As noted above, the budgetary costs associated with this alternative are much lower than those for either zero rating essential purchases or for indexing transfers.

Table 8-3
Distribution of Value-Added Tax Burden:
Broad-Based Tax and the Effect of Income-Based Credits
(Tax Rate of 10 Percent)

	Family Economic Income Class (in thousands of dollars) 1/								
	$0 - 10	10 - 15	15 - 20	20 - 30	30 - 50	50 - 100	100 - 200	200 & over	Relative cost of credits 2/
	(Value-Added Tax Paid as a Percent of Economic Income)								
Value-added tax (VAT) on broad base without adjustment of indexed transfers	14.2	9.2	7.5	6.1	5.0	3.9	3.0	1.8	--
Alternatives:									
1. VAT on broad base without adjustment of indexed transfers and with refundable phased-out credit based on 100% of poverty-level income (low credit)	10.5	7.8	6.7	5.8	4.9	3.9	3.0	1.8	4.8
2. VAT on broad base without adjustment of indexed transfers and with refundable phased-out credit based on 150% of poverty-level income (high credit)	8.7	7.1	6.3	5.6	4.8	3.9	3.0	1.8	7.2

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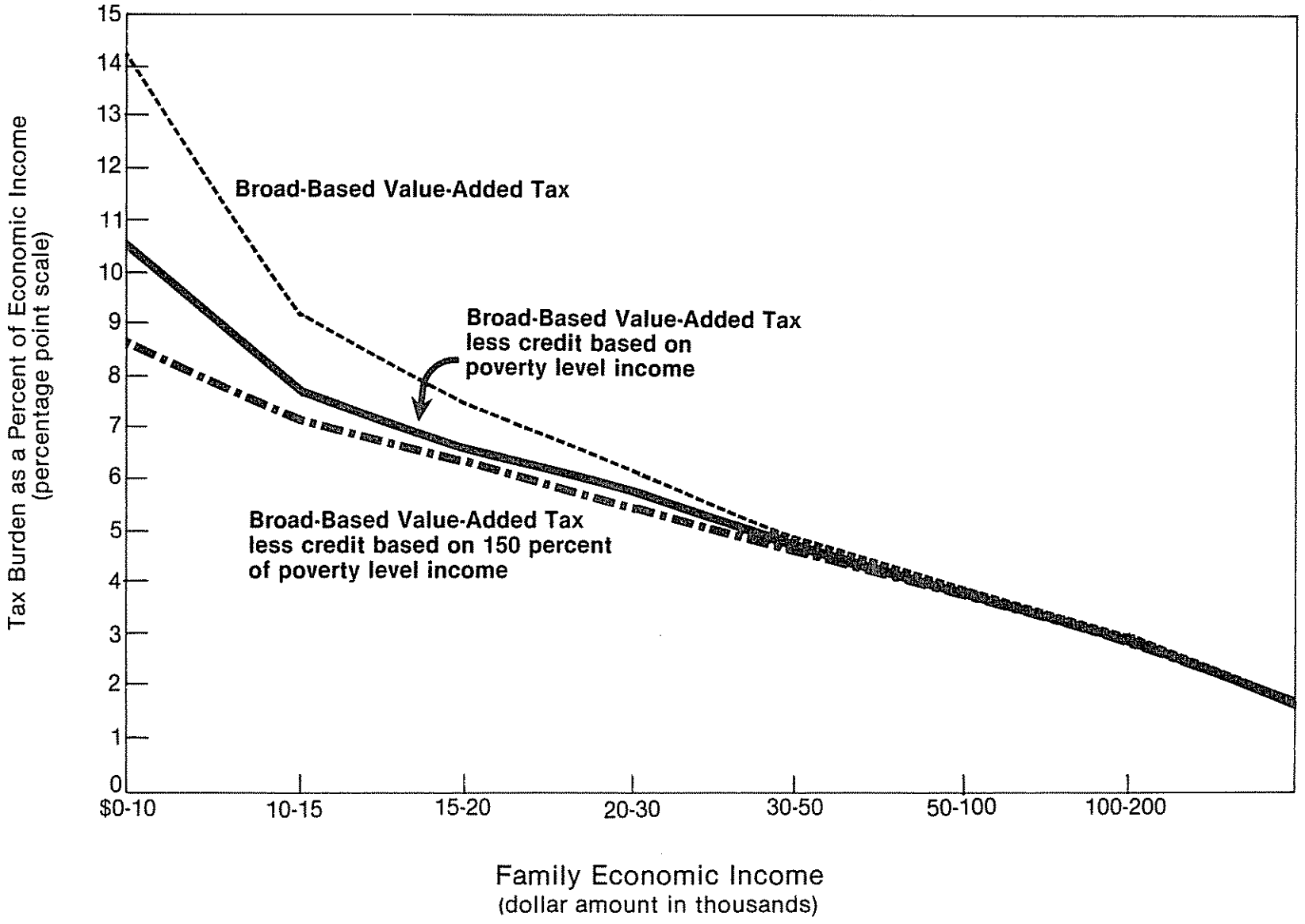
1/ Restricted to families with nonnegative income.

2/ The cost of each credit is expressed as a percentage of the revenue from a value-added tax on the comprehensive base (as described in Chapter 7) at 1988 levels.

Figure 8-4

EFFECT OF INCOME BASED CREDITS ON THE DISTRIBUTION OF VALUE-ADDED TAX BURDEN

(Tax Rate of 10 Percent)



D. Personal Exemption Value-Added Tax

As explained in Chapter 4, a personal exemption value-added tax would be substantially different from a conventional value-added tax. It would resemble, at first glance, a flat-rate income tax, but, in effect, could be regarded as a consumption tax of the value-added type, at least in terms of its base, with a personal allowance and exemptions to lessen the burden on the poor and the regressivity of the tax. As with the credit alternatives, the personal exemption approach probably would be in lieu of any indexing of transfers.

Under this personal exemption value-added tax, a tax would be levied, at a flat rate, on two forms of income:

(1) For individuals, wages, salaries, and pensions would be the only types of income subject to tax. The tax would be withheld by employers and pension payers, and paid to the IRS. Individuals would be given an allowance and personal exemptions, related to the number of dependents, and the amount of tax withheld by employers would be adjusted in terms of the allowance and exemptions. The personal allowance and exemptions would apply only to labor income; they would not be available with respect to the receipt of capital income.

(2) For all business enterprises, proprietorship, partnership, and corporate, business income would be taxed at the same rate as income of individuals. In calculating taxable business income, deductions would be allowed only for wages and salaries taxable to employees, for purchased inputs, and purchases of capital equipment. Because capital equipment purchases would be deductible, the personal exemption value-added tax closely resembles a consumption-type value-added tax, though with a feature that reduces regressivity and the absolute burden on the poor. But this alternative would only reduce the burden on low income individuals and families receiving labor or pension income. Thus, those dependent on income from capital, such as retired persons, would not be aided by the personal exemptions, nor would the unemployed be helped.

IV. Summary

As illustrated in Table 8-1 and Figure 8-1, a broad-based value-added tax, like any general sales tax, would be regressive relative to current annual income and would place a substantial absolute burden on the lowest income groups. It is commonly agreed that any viable proposal for a value-added tax must address these problems.

Families with economic incomes below $10,000 receive over half of their income in the form of indexed transfer payments, such as social security payments and food stamps. These tranfers would increase automatically to reflect the effect of the value-added tax on prices; thus indexing would lessen the burden of the tax on lower income families. Nonindexed transfers, which 2 million families receive, could be adjusted, if necessary, but this would have budgetary effects as well as ramifications for Federal-state financing of some of those

nonindexed transfers. Approximately 2 million of the 14 million families with economic incomes below $10,000 do not receive any transfer payments, either indexed or nonindexed. These families would not be affected by any adjustment of transfer payments.

An alternative for making a value-added tax more acceptable in terms of its burden distribution, attractive from both an economic efficiency and a revenue and budgetary standpoint, would be to provide a refundable credit against income tax that was phased-out as income increased above the poverty level. A properly designed credit could remove the burden of the tax on consumption equal to the poverty level of income and would lessen the regressivity of the tax. It would be much cheaper than either indexing transfer payments or zero rating of certain commodities; the benefits of these two alternatives would go to families in all income classes, not just those at the lowest levels. An important objection to the credit alternative is that it may be viewed as involving the introduction of a new family allowance as a by product of the value-added tax and without direct public debate on welfare reform.

An alternative to a refundable credit is zero rating of expenditures on food, prescription drugs and medicines, household energy, and water and sanitation services. This has many disadvantages, particularly the loss of revenue from those with income above the poverty level and operational and compliance problems. To attempt to extend the zero rating beyond these categories of expenditure would compound the operational problems and the revenue loss. The alternative of a personal exemption value-added tax would only help those receiving labor or pension income.

Table 8-4 summarizes the distributional and revenue consequences of the alternatives presented in this chapter: (1) automatically-indexed transfer payments; (2) zero rating of food; (3) zero rating of food, new housing, prescription medicine, household energy, and water and sanitation services; and (4) refundable, phased-out credits based on 100 and 150 percent of the poverty level of income. An important conclusion is that either the transfer payment or credit alternative would substantially reduce the burden of the tax on those families with economic incomes below $10,000, but with much smaller revenue consequences than the zero rating of essential commodities. This result is shown in the last column of the table.

Table 8-4
Distribution of Value-Added Tax Alternatives as a Fraction
of Economic Income by Income Class
(Tax Rate of 10 Percent)

	Family Economic Income Class (in thousands of dollars) 1/								
	$0 - 10	10 - 15	15 - 20	20 - 30	30 - 50	50 - 100	100 - 200	200 & over	Relative cost of alternatives 2/
	(Value-Added Tax Paid as a Percent of Economic Income)								
Value-added tax (VAT) on broad base without adjustment of indexed transfers.....	14.2	9.2	7.5	6.1	5.0	3.9	3.0	1.8	--
Alternatives:									
1. VAT on broad base with adjustment of indexed transfers.....	9.6	6.9	6.0	5.2	4.5	3.6	2.9	1.8	11.0
2. VAT on broad base without adjustment of indexed transfers and with food prepared at home zero rated.....	11.0	7.3	6.0	5.0	4.1	3.3	2.7	1.8	14.5
3. VAT on narrow base without adjustment of indexed transfers 3/....	8.9	5.9	4.8	4.1	3.3	2.7	2.3	1.7	28.8
4. VAT on broad base without adjustment of indexed transfers and with refundable phased-out credit based on 100% of poverty-level income (low credit).....	10.5	7.8	6.7	5.8	4.9	3.9	3.0	1.8	4.8
5. VAT on broad base without adjustment of indexed transfers and with refundable phased-out credit based on 150% of poverty-level income (high credit).....	8.7	7.1	6.3	5.6	4.8	3.9	3.0	1.8	7.2

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1/ Restricted to families with nonnegative income.

2/ The cost of each alternative is expressed as a percentage of the revenue from a value-added tax on the comprehensive base (as described in Chapter 7) at 1988 levels.

3/ Narrow base provides for zero rating expenditures on home-prepared food, new housing, prescription drugs and medicines, household energy, and water and sanitation services.

Chapter 9

ADMINISTRATION OF A VALUE-ADDED TAX

I. Introduction

The Internal Revenue Service (IRS) has developed a provisional plan for administering a consumption type value-added tax with liability determined by the credit method. When fully phased in, it would cost about $700 million per year and necessitate the hiring of about 20,000 additional employees. These costs and administration assumptions would need to be reassessed for either a subtraction or addition type value-added tax. In general, the value-added tax would apply to all sales of goods and services, but, as explained in Chapters 6 and 7, certain commodities, transactions, and types of activity would probably be excluded from the tax base.

II. General Information

The IRS would be primarily responsible for the administration of the value-added tax. Although a collection responsibility would be assigned to the U.S. Customs Service with respect to imports, all other tax administrative functions would be the obligation of the IRS.

The IRS would administer the value-added tax program within its existing organizational structure i.e., the same districts, regions, and service centers as are presently responsible for administering the income tax. Thus, the value-added tax would be an additional element in the Federal tax system, but it would not cause changes in the basic structure of how the other Federal taxes are administered.

In projecting the expected administrative costs, it was estimated that there would be about 20 million taxpayers under the value-added tax. Exclusions for specific industries or classes of taxpayers could result in somewhat lower numbers. For comparative purposes, an analysis of the current number of state retail sales tax filers was made. Under the state retail sales taxes, there were approximately 5.5 million registered firms in 1984. If this figure is extended to cover the 5 states not using the retail sales tax, the figure would be about 5.75 million. Many of the states, however, do not tax services; Hawaii and New Mexico do. If the very broad-based taxes of Hawaii and New Mexico, which apply to virtually all services, are considered, the number of sales tax filers on a national basis would be approximately 17 million and 15 million, respectively. None of these estimates, either for the Federal value-added tax or the state sales taxes, includes farmers.

There would be limited integration of the value-added tax with the income tax, i.e., enactment of a value-added tax would necessitate separate forms, filing requirements, and penalties. The IRS, however, would offset overpayments of other taxes with any uncollected value-

added tax liability. This is currently done, for example, when income tax overpayments are offset for underpaid employment taxes. The IRS would also offset any overpayments of value-added tax against underpayments of other types of taxes. To effect these offsets, the value-added tax statute would require a value-added tax taxpayer who is also a Form 1040 Schedule C filer to disclose his Social Security Number (SSN) on the value-added tax return. This action would be similar to the entry under current law of an Employer Identification Number (EIN) on a Schedule C.

The examination of value-added tax returns by the IRS would usually be conducted independently from the audits of income tax returns and the examination of records for value-added tax purposes would not constitute an examination of books and records for income tax purposes. For example, if a taxpayer's sales as determined by an examination of the value-added tax return are proven to be significantly in error by subsequent examination of the taxpayer's income tax return, the value-added tax examination would be reopened and sales for value-added tax purposes would be corrected.

III. Recordkeeping

Taxpayers would be required to maintain books and records in sufficient detail so that both sales and purchases subject to value-added tax could be accurately determined. These records would be required to be kept in a form that would allow their review by the IRS for the purposes of verifying reportable value-added tax transactions.

The records would have to show all taxable goods and services purchased or sold in the course of business, as well as a description of any items converted to personal use. The records would also indicate all zero-rated purchases or sales.

The specific form of the taxpayer's records would not be prescribed by the IRS, but if the records did not clearly reflect taxable sales and purchases, taxpayers would be required to make the necessary and appropriate changes in recordkeeping. The accounts and records should reflect cross referencing to all relevant supporting documents, such as orders, invoices, and correspondence. The taxpayer's records would be subject to the same retention rules as currently apply for income tax purposes. Taxpayers who supply or receive goods on consignment or similar terms would be required to keep separate records of such transactions, including the date when a transaction has been made or the goods have been returned to the supplier.

To enable the IRS agents to check the records of a business, taxpayers would be required to summarize their taxable sales and purchases for each taxable period, including any goods applied to non-business use. Necessary adjustments would be made for exempt transactions and activities. These summaries would be developed to coincide with the deposit periods for payment of value-added tax.

Receipts would be required to document all transactions; however, invoices would be issued only between registered business firms, or at the customer's request. While invoices are normally intended to enable the purchaser to verify that the goods supplied are as ordered, they also are essential to a credit method value-added tax. Credit for tax paid on business purchases would only be allowed if the invoice itemized the tax payment separately. When an invoice is required, a seller would be required to issue an invoice to the purchaser within 30 days of the sale.

Each invoice would be required to show: the name, address and EIN of the seller; the amount of the value-added tax, separately stated; a description of the quantity and nature of the goods or services; the date of issue of the invoice; the date the goods or services were delivered; the base price, i.e., the price upon which the value-added tax is levied; the transaction date; and, at the option of the purchaser, the EIN of the purchaser. For purposes of the tax, the base price would include Federal excise taxes. Refunds and credits would be recognized only where the purchaser's EIN is shown on the invoice. Invoices must be retained to verify value-added tax paid on purchases.

Refunds for value-added tax paid on exports would be allowed only if appropriate documentation is on file for goods and services exported. A credit for value-added tax paid on imports would be allowed only if import invoices certified by the U.S. Customs Service indicate that the tax had been paid to the government. Third party information reporting (e.g., Forms 1099) is not contemplated in the administration of the value-added tax.

IV. Filing of Returns and Payment of Taxes

The IRS currently processes all income tax returns in 10 service centers located in various regions of the United States. These same centers would be used for processing value-added tax returns and payments.

For purposes of collecting and paying the value-added tax to the IRS, the filing entry would be the same as for income or employment tax purposes; thus, a business with multiple locations and one EIN would file one value-added tax return. Each entity would use its EIN when filing. Those entities which do not now have an EIN, e.g., a business with no employees, would be required to obtain an individual EIN.

All value-added tax taxpayers would be deemed to be on a calendar year basis and returns would be required to be filed quarterly within 30 days after the end of each calendar quarter. A form similar to Form 6400 (Appendix 9-A) would be used for reporting taxable value-added tax sales and allowable purchase credits. This form would be filed with the same IRS Service Centers where taxpayers now file income tax returns.

Value-added tax collections would generally be governed by the deposit rules that apply to employment taxes, except as to frequency of payments. Value-added tax payments would be made using the Federal tax deposit (FTD) system. Deposits would be made at a Federal Reserve Bank or other authorized financial institution. Each deposit would be accompanied by a FTD coupon. Deposits would be automatically credited to the taxpayers' accounts under this system.

The frequency of value-added tax deposits would be based on the amount of value-added tax owed. A monthly or semimonthly deposit system would be used. If value-added tax liability is less than $2,000 for a particular month, a monthly deposit would be due by the last day of the month immediately following. However, if the value-added tax liability is $100 or less at the end of the first or second month in a quarter, it would be carried over to the next succeeding month. If a value-added tax liability is $100 or less at the end of the third month, it would be deposited or paid with the return by the due date of the return. If the liability exceeds $2,000 for any month of the quarter, semimonthly deposits of taxes would be made for the following quarter. The amount owed would be deposited by the 9th day following the semimonthly period for which it is reported.

The tax would be calculated on all goods and services not explicitly exempt or zero rated, regardless of the purchaser. Those entities that might normally qualify for value-added tax refunds, such as states, local governments, exempt organizations, and importers would receive quarterly refunds of value-added tax paid by filing Form 6400 with the IRS. Other taxpayers would have the option to carry forward unused credits against value-added tax owed in succeeding quarters or to receive refunds on a quarterly basis. This election would be made on Form 6400. The IRS would honor this quarterly election by refunding the value-added tax after offsetting the available value-added tax credits for any underpayments of other types of taxes.

V. Imports

The U.S. Customs Service would be responsible for collecting the value-added tax on items imported into the United States. The rules for establishing the taxable value of items would follow the same rules now used for the purposes of collecting duties on those items. For example, the value of imported merchandise is generally the transaction value of the goods, that is the price actually paid or payable for the merchandise when sold for exportation to the United States, plus certain other amounts which include packing costs, selling commissions, royalties, or license fees. If the transaction value cannot be determined, then certain other valuation methods are applied such as the transaction value of identical or similar merchandise, or a deductive or computed value. For the value-added tax, as for duties and certain Federal excise taxes, it would be the responsibility of the U.S. Customs officer to establish the value. Also, the requirements for providing the proper entry document, packaging of imported

merchandise, inspecting such merchandise, collecting the tax, assessing subsequent tax if the value is originally understated, and disputing and appealing the determination of value upon which the tax is assessed would follow the rules established for purposes of collecting import duty.

If no duty is collected by U.S. Customs because the item is entitled to enter the U.S duty-free, the value-added tax would still be collected unless that item is zero rated under the value-added tax rules and thus would not be subject to the tax. However, if an item is imported and classified by the U.S. Customs as qualifying for temporary free importation because that item is to be held temporarily in a bonded warehouse for export, no value-added tax would be collected. If, instead, the item were exempt from duty because it was imported for use by the person importing the article, the value-added tax would be collected. The bonds or sureties required to guarantee payment of duties would also be required to assure payment of the value-added tax. Likewise, the rules which apply for nonpayment of duty, such as those governing the disposition of goods, would apply for nonpayment of the value-added tax. The Customs' rules defining who is liable for the duty, internal advice procedures, protests, and appeals would also be applicable to Customs' procedures for assessment and collection of the value-added tax.

The rules governing the method and time period for collection of duty would generally govern for value-added tax purposes. However, if the value-added tax were collected along with import duty and if the duty were later refunded, such as occurs when certain goods are held in the United States temporarily and then exported, the value-added tax would not be refunded since it would be assumed that credit for payment of the value-added tax would already have been taken against the importer's value-added tax liability.

VI. Enforcement

Once a value-added tax is in place, the success of the IRS in collecting the tax revenue will depend primarily on two program areas: Examination and Collection. An effective examination function must be developed to detect receipt and invoicing distortions along with a collection system which will permit early detection of delinquent taxpayers.

A. Examination

In the initial years of any new tax, an effective system of tax administration should have a significant audit presence. This would be particularly true with respect to a value-added tax in the United States.

As shown in Table 9-1 the income tax compliance levels of sole proprietorships (Schedule C) and corporations have been declining in recent years. The data below, developed from IRS taxpayer compliance

Table 9-1

Taxpayer Compliance Levels: Individual and Corporate
Selected Years, 1976-1981
(Percent)

	COMPLIANCE LEVELS	
	Tax Year 1979	Tax Year 1976
Total Individual	90.8	91.8
Schedule C, Gross Receipts		
$1 - $25,000	66.3	72.9
$25,000 - $100,000	76.0	81.5
$100,000 and over	74.8	78.8
	Processing Year 1981	Processing Year 1978
Total Corporations	80.6	83.3
No Balance Sheet	60.6	63.0
$1 - $1,000,000 Assets	70.4	73.9
$1,000,000 - $10,000,000	85.9	88.8

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measurement programs, reflect this decline (i.e., the ratio of tax liability reported to correct tax liability exclusive of math errors.)

Based on the assumption of approximately 20 million taxpayers, the IRS audit coverage and staffing by categories of taxpayers are shown in Table 9-2.

Since a value-added tax would be a new Federal tax, about 8,500 new hires would be added to the examination staff. It would not be practical to acquire these new hires more rapidly than one third per fiscal year beginning in the year the tax is effective. This limitation is due to many factors, such as the availability of qualified candidates, the resources that would be needed to recruit, interview, select, and train the new hires, and the nonavailability of value-added tax work for some of the people if hired too early in the implementation process.

Over the years, the IRS has continued to perfect its computerized methods of selecting income tax returns for examination with the result that the yield from its examinations has increased and its rate of no-change examinations has decreased each year. This has been the result of gathering extensive statistical data relating to the returns examined and filed and of conducting periodic research and taxpayer compliance measurement programs. Such an information base would not be available initially for developing a selection system for value-added tax returns.

In the early years of a value-added tax, the IRS would develop a computerized selection system. But until an extensive information base is acquired either through a research study or the taxpayer compliance measurement program, the system would not be as effective as the income tax system in terms of revenue yield and low no-change rates. It would probably take as long as 5 years after the effective date of a value-added tax to develop an effective return selection system.

Until the IRS has developed an information base with respect to non-compliance areas, it will be difficult to classify returns for examination merely on the basis of Form 6400. Accordingly, during the first 5 years after the effective date of a value-added tax, returns would be selected on the basis of largely untested characteristics. The IRS would also include special value-added tax compliance checks in the examination of income tax returns to check the accuracy of value-added tax reporting.

Examinations of sole proprietorship (Schedule C) taxpayers are the most time consuming of all individual income tax examinations. This is because many of these taxpayers do not maintain reliable books and records. Generally, their books and records are a single-entry system maintained by the taxpayer, with personal and business accounts comingled and receipts maintained in a haphazard fashion.

Table 9-2

Audit Coverage and Staffing for Value-Added Tax
By Categories of Taxpayers

	Receipts (millions of dollars)				
	Less than: $1.0	$1.0-10.0	$10-100	Over $100	Total
Taxpayers	18.8	.9	.3	15K	20.0
Audit coverage (overall)	2%	4%	8%	28%	2.2%
Hours per case	15	20	40	80	
*Staffing	6,269	800	1,066	374	8,509

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* The above estimate includes support personnel; 7,032 of the 8,509 are technical staff years and 1,477 are support staff years.

Since the reporting of sales figures would likely be a major area of abuse, the IRS would need a recognized method of determining sales for those value-added tax taxpayers whose books and records are not reliable. The staffing estimates in this section are based on IRS examiners using examination techniques similar to those employed by state sales tax examiners, which require much less time than the indirect methods currently employed in Federal income tax examinations. This would mean extensive use of percentage mark-up techniques in auditing . In order to minimize disputes and to obtain maximum coverage, it would be useful for these techniques to be recognized as appropriate auditing systems in the codification of a value-added tax.

B. Collection

The collection function would operate under the same procedures and techniques that are employed in enforcing the income and withholding taxes. If value-added tax returns are filed with balances due, the service center staff would generate up to 4 notices to taxpayers at intervals of approximately 5 weeks. Cases that remain unresolved after notice processing would be forwarded to the automated collection staff for telephone contact and additional processing. Continued delinquencies would be turned over to a field officer for personal contact and resolution. At that point, more sophisticated collection techniques would generally be required.

Collection costs for a value-added tax are based on the IRS's experience with employment tax returns. Assuming 80 million value-added tax returns (quarterly returns by the 20 million taxpayers), the IRS estimates that there would be 1.06 million delinquent accounts and 1.4 million investigations of possible unfiled returns. Though some of these delinquencies would be part of an investigation for other taxes (employment or income, for example), it is estimated that the automated collection system would close approximately 65 percent of the remaining issuances so that the district offices would receive about 300,000 delinquent account referrals and 238,000 delinquency investigations.

The value-added tax would necessitate an increase in collection staffing of about 2,900 individuals. As with the examination staff, the collection staff would be increased in approximately one third annual increments. Assuming a July 1, 1987 effective date, the collection function would hire one-third of the required staff by March 1987, another one-third by March 1988, and the remaining one-third by March 1989. This would enable the IRS to devote sufficient resources to training new hires while maintaining its compliance coverage.

C. Criminal Investigation

The IRS would handle the criminal investigation part of value-added tax administration as an additional responsibility of the current staff of investigators. History has shown that when any new tax

is enacted, a body of civil tax law must be established before criminal enforcement can be achieved. Precedents in the civil area are generally required before courts will accept criminal prosecutions in tax matters.

Development of a criminal investigation workload would flow primarily from referrals coming from the examination and collection functions. As case law and taxpayer practices become established, the criminal investigation would then be able to address specific segments of noncompliance, as they now do in the income tax.

D. Appeals Procedures

Value-added tax taxpayers would have appeal rights in disputes with the IRS similar to those under the income tax. In pursuing a disagreement with adjustments proposed by the IRS, the taxpayer would have the opportunity to request an appeals hearing within 30 days after the receipt of the examiner's report. Once requested, the hearings would be conducted promptly by the Appeals office of the IRS.

If the liability recommended by the IRS continues to be unresolved, the taxpayer would then have the opportunity to pay the full amount of any tax due and appeal to the U.S. Court of Claims or to any federal district court. In this connection, the value-added taxpayer would be treated the same as if an excise or payroll tax were in dispute. Before the taxpayer could appeal to the courts, the tax would be assessed and must be paid.

VII. Public Education Strategy

Unless these is adequate and timely publicity before a value-added tax is introduced, resistance based on inaccurate or inadequate data could become a serious problem. Every country that has adopted a value-added tax has preceded its implementation with a one-to-two year intensive public information campaign. The time required in the United States could conceivably be shorter. However, because the value-added tax would impose new requirements on taxpayers, a carefully-planned taxpayer information campaign would be necessary.

The IRS would take the following steps.

1. It would prepare and disseminate a basic Value-Added Tax Public Education package which would include fact sheets, proposed speech inserts, and written questions and answers.

2. It would issue a series of news releases announcing filing dates and explaining the use of the new forms.

3. It would publish a series of op-ed articles under the byline of the Commissioner of the Internal Revenue Service and other senior Administration officials. These articles would explain the philosophy behind the value-added tax, its advantages, and its operation.

4. The IRS would also arrange numerous press conferences and press briefings at the national, regional, and district office levels.

5. It would schedule and manage a large number of briefing meetings with such organizations as the U.S. Chamber of Commerce, the National Association of Manufacturers, and other business-related organizations.

6. On both the national and field levels, the IRS would mount coordinated wide-ranging speakers programs to provide the public, practioners, and industry groups with information on the value-added tax.

VIII. Returns Processing

Returns would be processed using the present 10 IRS service centers and the National Computer Center. The IRS would process 80 million returns (20 million per quarter) and 120 million deposits of tax. Along with the 50 million notices of various types which would be issued, it is expected that 5 million new EINs would need to be issued to value-added tax filers who do not now have an EIN. Five million adjustments (i.e., changes to taxpayer accounts after returns are filed) would be required per year.

IX. Data Processing Activities

Implementing a value-added tax would necessitate the acquisition of additional data processing equipment by the IRS. These costs are shown in Appendix 9-B. The computer services costs reflect expenditures for software development and hardware procurement. They include staffing to program and test, or contract for, software modifications to a series of IRS systems. The computer equipment costs (about $259 million over a four year period) would involve: the purchase and maintenance of Optical Character Recognition (OCR) devices to scan FTDs and returns (about $50 million); upgrades to data entry, main processing, and printing systems in the 10 service centers (about $121 million); machinery to maintain value-added tax accounts in master files at the National Computer Center (about $7 million); upgrades in 12 existent call sites for automated collection operations and computers in 8 new call sites under the Automated Collection System (ACS) (about $36 million); and portable computers for field personnel under the Automated Examination System (AES) (about $45 million). In accordance with IRS procurement practices, costs of $214 million are displayed under 4-year, lease-to-ownership plans (LTOP) and related maintenance schedules. In accordance with projected examination staffing, AES equipment costs would occur in 4 installments with an annual purchase cost of $10.5 million and an incremental maintenance fee geared to the aggregate number of portable computers acquired through each installment.

X. Cost Estimates

The IRS has made preliminary cost estimates (Annex 2) for administering the value-added tax. At today's prices, these estimates indicate that it would cost about $700 million per year once the administrative program is fully effective. These costs do not include the following: costs to the private sector of complying with the recordkeeping and filing requirements; costs to other Federal agencies involved in administering a value-added tax, e.g., the Customs Service for imports and the Bureau of Government Financial Operations (currently $.50 per FTD is paid to banks for processing); and opportunity costs to the IRS, since the income tax revenue produced by enforcement personnel may decline during the conversion to a value-added tax because a significant number of the IRS's experienced personnel would be involved in training, planning, and managing the value-added tax system.

The costs for taxpayer services (which includes taxpayer education) are based on IRS general experience with new legislation. There is no comparable experience with the introduction of a radically different tax. The category of resource and other costs includes the necessary costs to hire, train, support, and house the staff involved in the operational segments of the IRS. Certain support personnel costs would rise in direct ratio to operational staff expansion: e.g., personnel, internal audit, internal security, and training. In addition, the costs of increased office space, travel, and the like would be incurred.

XI. Summary

To implement a value-added tax successfully, there must be adequate preparations. These would include designing the system for administration; developing complete staffing and equipment needs; putting together a practical public relations program; and adhering to a realistic timetable. The IRS would need at least 18 months after enactment before it could begin to administer a value-added tax. Thus, even if a value-added tax were enacted by the end of 1985, IRS administration could not begin before July 1, 1987. If an enacted value-added tax were materially different from the value-added tax assumed in developing these cost estimates, the projected leadtime and costs could be substantially modified.

Appendix 9-A

Form **6400**
(July 198X)
Department of the Treasury
Internal Revenue Service

Federal Value Added Tax (VAT) Return

Calendar quarter ending ☐ March, ☐ June, ☐ September, ☐ December, 19 .

OMB No 1545-XXXX

Taxpayer's name	Taxpayer's identifying number
Address	Business code number
City, state and ZIP code	

If you are an exempt entity, use this Form 6400 to report only transactions connected with an unrelated trade or business. For all other transactions, file Form 6400-R instead.

Part I Tax Computation

1	Total sales on invoices issued during the quarter (and issued during prior quarters but not previously reported on a Form 6400) **Enter total sales net of VAT and state sales tax**		1
2	Zero rated sales shown on invoices included on line 1	2	
3	Returns, allowances, discounts not previously claimed on a Form 6400	3	
4	Allowance for uncollectibles allocated to quarter	4	
5	**Total deductions** (add lines 2, 3 and 4)		5
6	**Taxable sales** (subtract line 5 from line 1)		6
7	Tentative VAT (multiply line 6 by .xx)		7
8	Total VAT paid on invoices received during the quarter	8	
9	Total VAT paid on invoices received during prior quarters but not previously reported on a Form 6400	9	
10	VAT credit carried over (from line 16 of last filed Form 6400)	10	
11	VAT deposits (from Part II)	11	
12	**Total VAT credits** (add lines 8, 9, 10 and 11)		12
13	If line 7 is greater than or equal to line 12, subtract line 12 from line 7 and enter **net undeposited VAT due**		13
14	If line 12 is greater than line 7, subtract line 7 from line 12 and enter **net VAT overpayment**		14
15	Amount on line 14 to be **refunded** to you		15
16	Amount on line 12 to be applied as a VAT credit carryover (subtract line 15 from line 14)		16

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete.

Date ▶ Signature ▶ Title (Owner, etc.) ▶

Appendix 9-A, continued

Form 6400 (7-8X) Page 2

Part II Deposit Schedule and Record of Tax Liability (See Instructions)

Period		Amount of Liability
Month	Day	
First month	1st through 15th day	
	16th through last day	
	Total for month	
Second month	1st through 15th day	
	16th through last day	
	Total for month	
Third month	1st through 15th day	
	16th through last day	
	Total for month	

1 Total liability for the quarter

2 Total deposits for the quarter. Enter here and on line 11 of the Tax Computation

3 If you make semimonthly deposits and claim one of the deposit exceptions, please indicate the exception:
a ☐ b ☐ c ☐ d ☐

Appendix 9-A, continued

Form **6400-R**
(July 198X)
Department of the Treasury
Internal Revenue Service

Application for Refund of Value Added Taxes
For Exempt Entities

Return for period beginning , 19 , and ending , 19

OMB No 1545-XXXX

You may use this form to apply for a refund only if you are an exempt entity described in Code section xxxx.
All other entities must use Form 6400.

Entity's name

Entity's identifying number

Address

City, state, and ZIP code

Check applicable box:

- ☐ State or local government (or instrumentality or subdivision) (see instructions)
- ☐ Exempt under section 501(c)( ) (insert number) ☐ Exempt under section 501(d)
- ☐ Exempt under section ☐ Section 4947(a) trust

1 Total VAT paid on invoices received during the tax period for which you are filing this application	1	
2 Total VAT paid on invoices received before the period for which you are filing this application, but not previously reported on either a Form 6400 or a Form 6400-R	2	
3 Amount to be refunded. Add lines 1 and 2	3	

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete

Date ▶ Signature ▶ Title ▶

Form **6400-R** (7-8X)

Appendix 9-B

ESTIMATED STAFFING AND ANNUAL COST

Function	First year		Second year		Third year		Fourth year	
	Staffing (average positions)	Cost (millions)	Staffing (average positions)	Cost (millions)	Staffing (average positions)	Cost (millions)	Staffing (average positions)	Cost (millions)
Returns processing	7,935	$165.0	7,539	$156.0	7,464	$155.0	7,389	$153.0
Computer services	37	2.0	10	0.5	10	0.5	10	0.5
Computer equipment		68.4		62.8		63.4		64.0
Statistical reporting	13	0.4	12	0.4	12	0.4	12	0.4
Examination	2,344	88.6	4,688	177.1	7,032	265.7	7,032	265.7
Collection	958	34.9	1,196	68.1	2,874	102.2	2,874	102.2
Taxpayer service	406	13.0	406	13.0	406	13.0	406	13.0
Resources and other costs	663	15.7	1,327	33.0	2,000	49.6	2,031	50.7
Appeals	70	3.5	280	13.9	560	27.8	840	41.7
Counsel	50	2.5	100	5.0	100	5.0	100	5.0
Training costs		16.1		12.5				
Totals	12,476	$410.1	15,558	$542.3	20,458	$682.6	20,694	$696.2

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