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Key Questions in Considering a Value-Added Tax  
for Central and Eastern European Countries

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Abstract

In the course of introducing a market-oriented tax system, most Central and Eastern European countries are actively considering the merits of a value-added tax (VAT). This paper examines a wide range of social, economic, structural, and administrative issues that are pertinent to the introduction of a VAT. These issues have regard to the burden distribution of the VAT, its effect on the price level and economic growth, as well as the coverage of the tax, the definition of the base, and the choice of the rate structure. Various legal and administrative aspects are also reviewed. The paper draws on the experience with value-added taxation of the member states of the European Community (EC) and other countries that belong to the Organisation for Economic Cooperation and Development (OECD).

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### Summary

In the course of introducing a market-oriented tax system, most Central and Eastern European countries are actively considering the merits of a tax-credit type of value-added tax (VAT). A general, destination-based consumption tax, such as a VAT, is the most product-neutral and factor-neutral tax which exists. This is an important attribute in a highly competitive, interdependent world that leaves the optimal allocation of resources to the free play of market forces.

Measured against income, a VAT levied at a uniform rate falls more heavily on the poor than on the rich. This effect can hardly be mitigated by taxing essential consumer goods at a lower-than-standard rate. Adjustments of the income tax and the income transfer system are much more effective in helping the poor. Also, differentiated rates distort consumer and producer choices and add to administrative and compliance costs. There is no evidence to support the allegation that a VAT is inflationary. Since a VAT is neutral with respect to the choice between whether to consume now or to save for future consumption, its effect on saving and, hence, on economic growth, may be more favorable than that of an income tax. A VAT can be administered by subordinate levels of government.

Once a country has decided to introduce a VAT, it must address various structural issues relating to the coverage, base, and rate(s) of the tax. A strong case can be made for having the VAT include the retail stage from the beginning, although most retailers (though not retail sales) and craftsmen could be excluded through a generous small-firm exemption. Primary sectors--in particular, agribusinesses--should be taxed, although an exemption-cum-optional-registration approach might be more suitable for countries like Poland, which did not collectivize its agricultural sector. On economic and administrative grounds, public sector bodies should be taxed as widely as possible. As regards the tax base, exemptions should be confined to health care, education, social and religious activities, and finance and insurance. Building materials, repair and maintenance services, and newly created buildings should be taxed at the standard rate. If a dual-rate structure is contemplated, the lower-than-standard, but positive, rate should apply to all foods for human or animal consumption; placing a zero rate on these items is not advisable.

Conventional wisdom suggests that a country needs 18 to 24 months to make a VAT fully operational, but unfamiliarity with the tax and the need for intensive taxpayer education may require the usual lead time to be extended by, say, six months. Since compliance must be ensured through books of account, the VAT and the income tax should be administered by the same department. The preparation of precise, complete, and unambiguous legislation and operational methods and procedures is essential if a VAT is to be effectively implemented. Subsequently, sustained efforts to elicit taxpayer cooperation are required. Finally, the introduction of a VAT should be preceded by a substantial degree of price liberalization and enterprise autonomy.

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"Those scholars who criticise Ministers for their ignorance of the calculus of variations, and those practical men who criticise those who do understand the calculus of variations for being too academic, are equally victims of a misunderstanding about the relationship between ideas and policy." John Kay, "Tax Policy: A Survey", The Economic Journal, 100 (March 1990), p. 20.

## I. Introduction

The transition from a planned economy to a market-oriented economy in Central and Eastern European countries requires, among other measures, a nearly complete overhaul of the tax system. In most countries, the introduction of a value-added tax (VAT) is considered one of the cornerstones of the necessary tax reform. Hungary and, perforce, the former German Democratic Republic, have already adopted a VAT. Furthermore, proposals for the design and implementation of a VAT are actively being studied in Bulgaria, Poland, and Romania. The Czech and Slovak Federal Republic, the Soviet Union, and Yugoslavia have also expressed interest in a VAT, although the federal type of government of these countries may be an obstacle to its early introduction.

In adopting the VAT, these countries follow the same pattern in tax development as many other countries in Europe and the rest of the world. Twenty-one of the 24 member countries of the Organisation for Economic Cooperation and Development (OECD), for instance, have accepted the VAT as their main consumption tax (see Appendix). 1/ Switzerland, the United States, and Australia are the only OECD countries that have not yet done so. 2/ Outside the OECD area, the VAT is levied by approximately 35 countries in Africa, Asia, and Latin America. Interestingly, the VAT, as it exists

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1/ For a survey and evaluation, see OECD (1988). A summary of the OECD's findings is given by Messere and Norregaard (1989). For an analysis of VATs in other countries, see Tait (1989).

2/ In a referendum, the Swiss have twice rejected a government proposal to replace their current retail sales tax (RST) by a VAT. Nonetheless, the issue is again under consideration by the Swiss Senate. In the United States, the most important industrial country without a VAT, the pros and cons of the VAT are the subject of an ongoing debate. It is feared that the VAT would become a money machine for the government and that the VAT would encroach upon the base of the RST, which is levied by almost all the states. Finally, Australia still clings to its wholesale sales tax, which was introduced in 1930. It will be noted that all OECD countries without a VAT have a federal type of government.

today, was not known some 25 years ago. Indeed, its widespread introduction in the latter half of this century is one of the most significant events in the evolution of tax structure.

For economic and other reasons, developments in the European Community (EC) are most relevant to the discussion on the VAT in Central and Eastern European countries. It appears that many of the reasons that induced the member states of the EC to adopt a VAT are also relevant to the debate in the formerly socialist economies. This section briefly examines these reasons and outlines the organization of the paper.

### 1. Why a VAT?

The VAT was pioneered in France, which introduced a value-added type of consumption tax on goods in 1954, levied at the production stage. In 1968, this tax was merged with the existing turnover tax on services and a local tax on retail sales into a single, comprehensive levy extending through the retail stage. 1/ In the next decade, the VAT was adopted by the other original member states of the EC. Since the tax was made a condition for membership, the new entrants to the EC introduced it as well. The base of the common VAT was nearly fully harmonized in 1977 with the promulgation and subsequent enactment of the EC's Sixth Directive at member state level. Currently, the EC is considering a proposal for a dual rate structure, comprising a standard rate of at least 14 percent and a lower rate ranging from 4-9 percent. It is also designing measures to do away with internal border controls by the end of 1992.

From the beginning, the EC has attached great importance to the VAT, because, unlike the cascade type of turnover taxes levied earlier, it is very successful in treating intra-Community trade, as well as trade with third countries, according to the destination principle. A VAT enables the precise identification and rebate of the tax on exports so that they can leave a country free of tax, while imports can be taxed on exactly the same footing as domestically produced commodities. Obviously, this form of neutrality is essential for the proper functioning of a common market. More generally, the border tax adjustments under a VAT agree with the tax provisions of the General Agreement on Tariffs and Trade (GATT). 2/

In addition to being neutral with respect to foreign trade, the VAT does not distort domestic production and distribution. Thus, under the VAT, it makes no difference how often a product is traded before it reaches the consumer or whether its value is added earlier rather than later in the

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1/ As indicated in the Appendix, Denmark introduced the VAT a year earlier than France, but initially its version did not tax services in a comprehensive manner. For a review of developments in the EC, see Cnossen and Shoup (1987).

2/ For a review and evaluation of the border tax adjustments under various forms of sales taxation, see Cnossen (1990).

production-distribution process. The VAT is neutral regarding the production technique that a business adopts. In other words, it makes no difference for the tax liability whether a product is manufactured with capital- or labor-intensive technology. Also, the VAT is not influenced by the forms or methods by which business is conducted. Other things being equal, the tax bill is the same whether a product is made in the corporate or noncorporate sector, or whether it is made by integrated or specialized firms. It will be appreciated that these features are important attributes of a "good" tax in economies that leave the optimal allocation of resources to the free play of market forces.

Another reason why so many countries have adopted the VAT is that it is an exceptionally stable and flexible source of government revenue. The revenue yield of a broadly based VAT with few exemptions, as found in the OECD, exceeds on average 0.4 percent of GDP for every 1 percentage point of the rate (see Appendix). Since consumption as a share of GDP fluctuates little, by implication the VAT is a stable source of revenue. For much the same reason and because the VAT is collected on a current basis, it is a flexible tax instrument: a change in the rate translates immediately into more or less revenue. As a simple transactions-based tax, moreover, the VAT is a certain levy and relatively easy to understand. Because the tax is broadly based, applying to all sales in the business sector, its base is rarely subject to differing interpretations. Opportunities for tax avoidance and tax evasion are more limited than under the income taxes.

No doubt, these features are important to the Central and Eastern European countries considering adopting a VAT. As these countries rely increasingly on market forces for allocating economic resources, they need a tax on goods and services that does not unintentionally interfere with those forces. Similarly, the integration of their economies with those of other industrialized countries demands a tax system that does not distort international trade. Furthermore, the role of government in Central and Eastern European countries in providing human and physical infrastructure and in taking care of the elderly and the poor is likely to remain substantial. In the absence of a workable income tax, financing requirements in this situation can best be met by a product-neutral, factor-neutral, and revenue-productive tax, such as a VAT.

## 2. Organization and summary

In subsequent sections, this paper looks at various key issues that countries must consider in adopting, designing, and operating a VAT. Conveniently, the issues to be discussed are grouped under four headings: conceptual aspects; social, economic, and political considerations; tax coverage, base, and rate issues; and legal and administrative features. The paper concludes with a summation of the basic requirements for a "good" VAT.

Section II on conceptual aspects starts with a brief review of the computation of the VAT liability from the accounts of a business firm, which

shows that the tax credit or invoice method is the preferred form. Subsequently, it is argued that economically a VAT is identical to a tax on consumer purchases, that is, a retail sales tax (RST). The VAT remitted in the early stages of the production-distribution process is not prepaid. Given the choice between a VAT and an RST, important technical considerations commonly tilt the balance in favor of a VAT. As a tax on consumption expenditures, the aggregate base of a VAT can easily be computed from national accounts statistics.

Section III deals with various social, economic, and political considerations. It starts by arguing that the burden of a uniform-rate VAT may be distributed regressively with respect to income, but that the application of a lower-than-standard rate on items consumed disproportionately by the poor is an ineffective and administratively burdensome way to adjust for this. Furthermore, empirical evidence suggests that a VAT is not inflationary. Since a VAT is neutral as regards the choice to consume now or later, its effect on the propensity to save is more favorable than that of an income tax. A VAT can be administered by subordinate units of government in countries with a federal type of government, but the arrangements that must be made are more complex than under an RST. In view of the pervasive influence of the public sector in the formerly socialist economies, a pertinent public choice question is whether the government can use the VAT to maintain its role and scope.

Important structural issues relating to the coverage of the VAT, its base, and rate structure have to be considered before it can be implemented. Section IV begins by arguing that the VAT should extend through the retail stage rather than be confined to, say, the manufacturers' level. Small traders and craftsmen, whose number will greatly multiply in the years to come, should be exempted. Primary sectors, particularly agribusinesses, should be taxed, and it makes sense to tax public sector bodies as widely as possible. A VAT functions best if all goods and services are included in the base. Exemptions should be confined to those listed in the EC's Sixth Directive, including health care, education, welfare activities, banking, and insurance. A strong case can be made for taxing newly created immovable property but exempting rents and imputed rental values as well as dealings in existing buildings. No presumptive tax credit should be allowed for secondhand goods that re-enter taxable trading channels. A single uniform rate is the best choice although a second-best option would be a dual-rate structure with a lower-than-standard, but positive, rate applicable to all food for human or animal consumption. A zero rate other than for exports should be rejected.

A VAT, like any other tax, is not better than its administration. Section V, therefore, examines various basic legal and administrative features. The usual lead-in time of a VAT is 18 to 24 months. Since compliance must be ensured through books of account, the VAT and the income tax should be administered by the same department. The preparation of precise, complete, and unambiguous legislation and operational methods and procedures is

essential if a VAT is to be effectively implemented. Subsequently, sustained efforts to elicit taxpayer cooperation are required. If these problems are solved, a VAT is not too costly to collect and comply with.

It should be emphasized that the VAT has hardly anything in common with the product taxes currently being levied in most Central and Eastern European countries. These taxes are either computed as the difference between a predetermined retail price (net of a retail margin) and production costs or are imposed at low but cumulative rates on trading activities. Obviously, in a command economy, these taxes are little more than a bookkeeping instrument to transfer funds from state enterprises to the central budget. This form of taxation is a world apart from that of a transactions-based, accounts-controlled VAT in a market economy based on a free enterprise and pricing system. The subsequent discussion can thus draw few parallels with the product tax systems in Central and Eastern European countries.

## II. Conceptual Aspects

The type of VAT that most Central and Eastern European countries are considering, like that used in the EC and nearly all countries elsewhere, is a multistage, destination-based, net consumption VAT that includes all goods and services in its base (except those explicitly exempted), covers the retail stage, and permits registered firms a credit or deduction, as it is often called, for the tax paid in respect of purchases from registered suppliers against their own tax payable on sales. This section examines the workings and nature of this type of VAT, as well as some other types as required for the subsequent discussion. 1/ It is shown that a VAT is economically identical to an RST, although technical differences commonly tilt the choice in favor of the VAT. Finally, some indication is given on how the aggregate VAT base can be computed from national accounts.

### 1. How can value added be computed?

The net tax liability of the type of VAT defined above is not difficult to compute. Every taxable business firm would be required to charge tax on its sales, stating the exact amount on sale invoices. Conversely, that firm would pay a VAT on its taxable purchases that, in turn, would be shown on suppliers' invoices. For any tax period, the net VAT liability is then the difference between the total amount of VAT shown on all sale invoices and the total amount of VAT shown on all purchase invoices. (Sales and purchases comprise all taxable goods and services, including raw materials, intermediate products, ancillary supplies, finished goods, plant, and equipment.) While it would be sufficient, for VAT accounting purposes, to have one spike on which to pin purchase invoices and another spike for sale

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1/ For an analysis of various types of VAT and the factors involved in making an informed choice, see Shoup (1990).

invoices, as a rule, the net VAT liability will, of course, be ascertained from books of account. In any case, such books and other documentation would have to be maintained to check compliance.

While the VAT does not enter the profit and loss (P & L) account of a firm (except if, say, an exempt item is purchased whose price includes an element of VAT incurred in earlier stages), the workings of a VAT can usefully be illustrated by reference to the P & L account, which, after all, is the central summary statement of the firm's activities. Consider the stylized example in Table 1, which shows the quarterly P & L account of a Soviet trading firm, as well as the items that enter into the VAT base and the corresponding gross and net tax liability. The business sells goods and services that it produces by adding the value of the services of its own labor and capital equipment to its purchases from other firms. The top of the table shows the transactions liable to VAT, namely sales (line B) and purchases (line A). The difference between sales and purchases is the net value added by the firm (line C). Since the tax is levied at a rate of 10 percent, the net VAT liability is R 160 minus R 110, or R 50 (also line C).

Clearly, the entries in the P & L account on purchases cannot be used directly to ascertain net taxable value added. The reason is obvious. While the P & L account and the VAT both record the transactions on an accrual basis, the net consumption type of VAT, in addition, is levied on a cash flow basis of accounting. Thus, no correction needs to be made for the change in the value of inventory (which must be made in the P & L account to match sales and purchases). Furthermore, the cash flow basis of accounting implies that the tax on the purchase of machinery (which is assumed to be depreciated over four years in the P & L account) is credited immediately against the VAT on sales. As a result, as accountants will note, gross profits (R 400; not shown in the table) are not the same as net value added (R 500).

In the table, the net VAT liability is computed by deducting the tax on purchases (more generally referred to as inputs) from the tax on sales (also referred to as outputs) for each tax period. This method, which is used in all OECD countries except Japan (where it is optional), is called the indirect subtraction technique or tax credit method. Since the tax on sales must be stated on invoices to provide documentary evidence for the credit claimed by registered buyers, the tax credit technique is also referred to as the invoice method.

Obviously, as is evident from the table, the net VAT liability can also be ascertained by deducting the aggregate value of purchases (R 1,100) from the aggregate value of sales (R 1,600) and taxing the difference (R 500) between them. This approach to computing the VAT is called the direct subtraction technique or accounts method. Under the direct subtraction type of VAT, goods and services cannot be identified separately. Hence, rate

Table 1. Computation of VAT Liability

(In rubles, excluding 10 percent VAT)

Costs	P&L Acct.	VAT		Proceeds	P&L Acc.	VAT		
		Base	Tax			Base	Tax	
<b>I. Transactions liable to VAT</b>								
A. Purchases	<u>1,200</u>	<u>1,100</u>	<u>110</u>	B. Sales	<u>1,600</u>	<u>1,600</u>	<u>160</u>	
Goods	950	950	95	Goods	1,200	1,200	120	
Inventory - Open: 350				Services	400	400	40	
Close:150	200	--	--					
Services	50	50	5					
Machinery (depr. 4 yrs)	--	100	10					
C. Net value added	--	500	50					
Subtotal	<u>1,200</u>	<u>1,600</u>	<u>160</u>	Subtotal	<u>1,600</u>	<u>1,600</u>	<u>160</u>	
<b>II. Items not liable to VAT</b>								
D. Factor rewards	<u>800</u>	--	--	E. Inv. income	<u>400</u>	--	--	
Wages	450	--	--	Dividend	125	--	--	
Depreciation	25	--	--	Interest	175	--	--	
Interest	90	--	--					
Net profits	235	--	--					
III. Total	<u>2,000</u>	<u>1,500</u>	<u>150</u>	Total	<u>2,000</u>	<u>1,500</u>	<u>150</u>	

differentiation, if desired, is not feasible. Also, invoices do not provide documentary evidence on the payment of the VAT (referred to as the "audit trail" under the EC VAT), and border tax adjustments are more difficult to implement properly. Japan is the only OECD country that allows the direct subtraction technique.

Apart from identifying value added through the indirect or direct subtraction technique as the difference between outputs and inputs, value added can also be computed as the sum of factor rewards: wages, depreciation, interest, and net profits (line D in Table 1). In the literature, this approach is referred to as the addition method. To arrive at net value added, from factor rewards (line D), there must be deducted investment income (line E; this income does not represent value added by the firm) as well as the purchase price of the machinery (R 100), while the change in the value of inventory (R 200) must be added (or, alternatively, deducted if the value of closing inventory exceeds the value of opening inventory). Clearly, this approach is more complicated than the subtraction method, which does not require inventory accounting. Hence, virtually no country applies the addition method. Exceptionally, Argentina and Israel apply it to selected economic activities, such as banking and finance, where the value of inputs and outputs is difficult to measure.

## 2. What is the nature of a VAT?

Under a VAT, the sum of purchases (the value added at earlier stages) and the value added by the firm itself equals, by definition, the value of the inputs (which have a full tax credit attached to them) of the next firm in the production-distribution process. As a result, the same value added is never taxed twice; that is, cumulative effects do not occur. Moreover, at the final stage, that is, the retail stage, the sum of all values added throughout the process and, by the same token, the sum of all the differences between sales and purchases equal the consumer price, excluding tax. In other words, the total tax collected piecemeal under the VAT from all stages of production and distribution is exactly equal to a tax collected on the sale from the retailer to the final consumer or user, that is, a retail sales tax.

Since the VAT is partly collected at pre-retail stages, does this mean that firms at early stages advance the tax and, hence, that their working capital requirements are greater than under an RST? Does the piecemeal collection process impose an extra burden on manufacturers and wholesalers in the form of an interest charge that could be avoided if the government only taxed the final stage, that is, imposed an RST? Although some economists and businessmen believe this to be so, it is not true for the simple reason that the purchaser's right to a tax credit (and refund) arises at the same time that the supplier has to account for the tax. After all, the invoice date (in turn closely linked to the date of supply) is the date on which the tax on sales becomes due and the tax on purchases becomes eligible as credit. That date is the same for supplier and purchaser.

The multistage collection feature of a VAT does not require greater capital outlays than the single-stage collection characteristic of an RST, provided that the period of time for remitting tax and for processing any refunds is synchronized with commercial payment conditions and that bad debts do not arise. Under a VAT, as under an RST, taxable firms will not even bear the cost of financing carrying charges for tax paid on, say, inventory accumulation or capital equipment purchases. Under an RST, such items are exempt from tax--that is, the tax is suspended. Under a VAT, the tax invoiced for such items will be refunded if the tax paid on purchases exceeds the tax payable on sales. This conclusion is not affected if production, sales, or net inventories rise or decline. 1/

But if registered businesses bear no net tax in relation to their own value added, why do they nonetheless remit some tax to the authorities? To understand this apparent paradox, it is appropriate to look upstream at financial flows rather than downstream at the flow of goods and services. The answer is then that the consumer pays in full the tax that is collected by the retailer but that is remitted to the tax authorities by all registered firms in proportion to their share in the total value added embodied in the final product. In essence, any net tax remitted by upstream firms is simply paid to them by downstream firms in the production-distribution process. (Incidentally, this makes it more likely that a VAT, like an RST, will be borne by consumers in relation to their expenditures on taxable goods and services.)

To be sure, cash-flow benefits (and costs) arise if a registered firm's collection date (the date on which the tax is collected from customers before being handed over to the tax authorities) does not coincide with the remittance date (the date after the collection date but before the latest day designated for handing over the tax). This will happen under an RST if sales are made against cash but the tax is remitted, say, every three months, or if accounts receivable, inclusive of tax, are settled earlier than the tax is remitted to the tax authorities. If the tax payment conditions are similar, the effect also arises under a VAT, but part of the tax-induced cash-flow benefit may be spread upstream to the wholesale and manufacturers' level if retail purchases are also made against cash. Cash-

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1/ It may clarify the nature of the VAT to consider what would happen if consumers, too, were registered: that is, if they were taxed on the "sale" of their labor and capital services and allowed tax credits for the tax paid on their purchases of groceries, clothing, housing, and other consumer goods and services. Ignoring compliance costs, the whole economy would then be involved in a giant "money-go-round," in which no one would pay any net tax. The VAT puts a spoke in the wheel by halting the sequence of events at the retail level, where commodities pass into the hands of unregistered users and consumers, who cannot take credit for the tax. Obviously, this is the same stage at which an RST is imposed. Therefore, a VAT may be regarded as a retail stage tax that uses the tax credit technique, instead of the suspension rule, to eliminate cumulative effects.

flow costs arise with respect to sales on credit if the average length of time that customers defer payment exceeds the average length of time required for remitting the tax to the authorities. The same occurs with zero-rated goods if suppliers are paid before refunds are received.

Without a judgment on the net position of individual taxable firms, it is difficult to say whether a benefit or a cost arises, but there is no reason to assume that the position differs much, if at all, between a VAT and an RST. In the aggregate, the imposition of a VAT or an RST should involve a cash-flow benefit for taxable firms for two reasons: (1) as a rule, consumers pay more often in cash than businesses do; and (2) usually, tax payment terms are more generous than are commercial payment terms.

3. What is the difference between a VAT and an RST? 1/

If a VAT is identical to an RST, why not collect the full tax at the retail stage, that is, impose an RST? A VAT is preferred for four reasons: the potential coverage of the tax, the ability to distinguish producer goods from consumer goods, the ability to effect correct border tax adjustments, and the administrative feasibility of the tax.

First, RSTs are less effective in taxing services that are rendered primarily by small business establishments. Not taxing services means that services are favored over goods. This distorts the economic choices of both consumers and producers and unnecessarily accentuates the regressive impact of the tax, because the demand for services is generally more income elastic than is the demand for goods. In industrial countries, services comprise up to 50 percent of national product, too large a portion of economic activity to be ignored by a broadly based consumption tax. Administratively, taxing goods but not services involves complex and inherently arbitrary distinctions when the two are rendered in combination.

Second, RSTs have difficulty distinguishing between producer and consumer goods. How does a registered firm know that a shovel it supplies tax-free is used not for (taxable) gardening purposes but rather as an (exempt) input for factory work? Who knows whether sugar is used to sweeten tea at home (taxable) or as an (exempt) ingredient for (taxable) bakery products? Similarly, an RST has difficulty distinguishing taxable consumer

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1/ For a fuller analysis of the argument presented below, see Crossen (1987). For a good discussion of the case for the VAT versus the case for the RST, see Due (1973) and Shoup (1973).

services from exempt services rendered to business. 1/ A VAT has no such difficulty because the seller is simply told always to charge tax, leaving it to the purchaser to obtain a tax credit if he is also a registered taxpayer.

Third, because RSTs are unable to distinguish effectively between producer and consumer goods, in practice many producer goods (fuel, office furniture, computers) are taxed. This discourages capital-intensive production and, hence, economic growth. Also, it means that the tax enters into the cost of exports, with detrimental effects on international competitiveness. Similarly, because the price of domestic goods incorporates an element of tax on producer goods, in addition to the RST itself, while the price of goods imported from countries with a VAT that is rebated in respect of exports does not, domestic goods are discriminated against artificially. 2/

Fourth, a VAT is a more robust form of consumption tax. It disperses the collection process over the whole of industry and commerce, it transfers part of the burden of proof with respect to tax liability to taxpayers (who must prove that they are entitled to the tax credit on purchases), and it penalizes dishonesty more than does an RST, because every invoice throughout the production-distribution process is a "public declaration" with respect to the tax liability.

The major point in favor of an RST is that it requires little or no border tax adjustments since goods are not taxed until sold to final domestic users or consumers. In other words, unlike a VAT, the RST is almost inherently destination-based. Unless imported by end-users, imports are not taxed, and, as a rule, exports do not pass through taxable retail channels. This makes the RST particularly suitable for operation in a federation where each subnational entity can administer its own version. As will be seen

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1/ Consider a simple service transaction--the purchase of a train ticket for a business trip. The VAT does not require the ticket office to take the purpose of the trip into consideration. The proper application of the RST, on the other hand, would require not only the presentation of an exemption certificate, but also an inquiry into the purpose of the trip. Clearly, the ticket office is not in a position to check that information. This example can be multiplied many times by others drawn from the fields of transportation, communications, advertising, and the professions.

2/ To some extent, these effects are also inherent in a VAT that exempts certain business inputs, such as financial services and insurance. While the EC zero-rates direct exports of these services, the element of tax related to the taxable inputs of the exempt services enters into the cost of other goods and services if produced with the aid of exempt services. Similarly, domestic products may have a disadvantage vis-à-vis imports, if the VAT in respect of the latter is more fully rebated in the exporting country or if no sales tax is levied.

below, the VAT can also be administered in a federation, but the arrangements are more complicated than under an RST. This explains the RST's popularity at the state and provincial level in Canada and the United States.

4. What is the aggregate base of a VAT?

The aggregate base of an EC type of VAT, being equivalent to the base of an RST, equals total private consumption expenditures shown in national accounts, subject to some adjustments. Thus, expenditures on services commonly exempted (see below), such as health care, education, welfare, finance, and insurance, as well as rents and imputed rental values, should be deducted from this base, while taxable intermediate goods and fixed assets of exempt sectors, including new housing, should be added back. Government purchases and investment in fixed assets should also be included in the base, as should inputs of the agricultural sector, if government sales and farm produce would not be subject to the VAT, or if the tax on agricultural inputs would not be washed out in some other fashion (see below). Finally, an adjustment would have to be made for the value added attributable to the small-firm exemption. Overall, the VAT base should cover up to 70-80 percent of total household consumption expenditures.

Obviously, the VAT base can also be computed by taking the figure for gross domestic product as the starting point. To this figure, the value of imports should be added and that of exports deducted to arrive at total expenditures on private consumption, government consumption, fixed capital formation, and an increase (algebraically defined) in business inventories. Subsequently, from this amount should be excluded the value of the services of the exempt sectors, government wages and salaries, fixed capital formation, and net consumption abroad. Additions would have to be made for the purchases of intermediate goods and fixed assets of exempt sectors, including government and agriculture, which are not eligible for a tax credit. Obviously, to arrive at the net VAT base, all figures should exclude the turnover taxes that are being replaced. In considering the tax base for revenue purposes, allowance should be made for the double counting of the tax on government purchases, which may involve an equal increase in expenditures.

III. Social, Economic, and Political Considerations

One of the most serious objections to a VAT is that it falls more heavily on the poor than on the rich. Furthermore, anxieties persist about how the introduction of a VAT would affect prices and economic growth. No doubt, these concerns are shared by Central and Eastern European policy-makers who are contemplating the introduction of a VAT. In view of the re-evaluation of the role of the central government in their countries, the question of whether a VAT can be administered by subordinate levels of

government in a federal fiscal system also deserves attention, as well as, more briefly, the question of whether the VAT is a money machine.

1. Should anything be done about the regressivity of the VAT?

The most pointed criticism of a VAT is that its burden is distributed regressively with respect to income. Since consumption as a share of income falls as income rises, a VAT levied at a uniform rate falls more heavily on the poor than on the rich. While the criticism is valid, it is true only if VAT payments are expressed as a percentage of income. If, instead, consumption is used as the denominator, then, by definition, the impact would be proportional. The burden of a VAT levied at a uniform rate would also be largely proportional if the denominator were lifetime income rather than annual income because many income recipients are only temporarily in lower income brackets. They move into the middle- or upper-income brackets as their earnings increase. A lifetime income concept takes account of this phenomenon.

Whatever the case, in the political arena the burden distribution of the VAT is usually measured against annual income. The question in this context is whether the regressivity issue should be addressed through the VAT itself or through other tax and expenditure measures. The VAT itself can be used to tax essential consumer items that are disproportionately consumed by the poor at a lower-than-standard rate (or even at a zero rate) and, conversely, to tax luxury commodities that are disproportionately consumed by the rich at a higher-than-standard rate. Corrections outside the VAT system might include higher income tax exemptions or lower basic rates, or increases in transfer payments to the poor.

Strong arguments have been advanced against the use of multiple rates under a VAT. To begin with, rate graduation is a very blunt and expensive instrument to mitigate regressivity. As household budget expenditure surveys indicate, the rich generally benefit twice as much as the poor in absolute amounts. This is because, for VAT purposes, it is nearly impossible to distinguish, say, expensive higher-quality food products bought by the rich from less expensive ordinary food products bought by the poor. But if such a distinction is not feasible, lower rates become less effective in mitigating the regressivity of the VAT. This is confirmed by the findings of four recent country studies, which indicate that the impact of a VAT changes less than might be expected when necessities are zero rated (as in the United Kingdom), taxed at a lower rate (as in the Netherlands), or taxed at the standard rate (as in Denmark and Norway). <sup>1/</sup>

Furthermore, the costs of administering a VAT are inevitably increased by a differentiated rate structure, because it brings in its train problems

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<sup>1/</sup> For the references, see OECD (1988), pp. 122 ff. For a review of the European experience, see also Clossen (1989).

of delineating products and interpreting the rules regarding which rate should be applied. Even with careful design, anomalies cannot be avoided. Differentiated rates also involve a significant increase in compliance costs, particularly of small firms. Usually, it is not possible for them to keep separate accounts for the sales of differentially taxed products. The tax liability must then be determined by applying presumptive methods, an approach that increases the difficulty of monitoring the taxpayer's compliance. Also, there is evidence that the increase in compliance costs attributable to differentiated rates is distributed regressively with respect to income. Smaller firms with lower incomes bear proportionately more of the burden than do larger firms.

It should also be emphasized that, given the amount of revenue to be raised, applying a lower or zero rate to essential commodities means that the standard rate must be higher than it would be in the absence of rate differentiation. This higher standard rate would magnify the distortion of consumer and producer choices. This defect should be taken seriously because, as a rule, the severity of tax distortions increases progressively with the tax rate that causes them. It has also been shown that high ad valorem rates have detrimental effects on product quality. The higher the standard rate required to maintain revenue, the more serious these effects are.

Similarly, increased rates make little sense. To the extent that they cover expenditures on drinking, smoking, and motoring, increases in the related excises or user charges are indicated. Also, higher rates are difficult to enforce with respect to small high-value items, such as jewelry, toilet goods, and cameras, which can easily be smuggled in from abroad. In practice, the part of the VAT base that can be taxed at a higher rate is extremely small, at most 5 percent of total consumption expenditures. This is to be expected. As noted above, higher-income groups usually buy varieties of particular commodities that are more expensive than the varieties bought by lower-income groups, but it is nearly always impossible to distinguish between them in a way that is relevant for VAT purposes. The rich also spend proportionately more than the poor on holidays abroad and on education, but these expenditures either cannot be taxed or must be excluded on merit grounds. Overall, higher-than-standard rates impart little progressivity to the VAT burden distribution. 1/

Clearly, it is advisable to keep the application of the VAT as uniform as possible and to help the poor by means of adjustments elsewhere in the fiscal system. Nonetheless, most OECD countries address the regressivity issue within the context of the VAT, as the Appendix indicates. In fact, 15

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1/ This is not a case against differential product taxation per se. Higher product taxes can be used as a proxy for charging users for the cost of government services, e.g., roads, or, more important, for internalizing external costs, e.g., pollution.

of the 21 OECD countries with a VAT apply one or more lower rates to essential items, such as food products, medicines, household fuels, public transportation, and some other items. Ireland, the United Kingdom, and, to a lesser degree, Canada, and Portugal subject these items to a zero rate, which means that all of the tax paid in previous stages and shown on purchase invoices is refunded. Furthermore, eight countries levy higher rates on luxury items. Admittedly, this picture owes much to the situation in the original EC member states, which adopted the VAT in the late 1960s and early 1970s. These countries were concerned with staying as close as possible to the tax burden distribution of the previous turnover tax so as not to jeopardize the acceptance of a completely novel levy. Not surprisingly, later converts to the VAT, not constrained by these considerations, adopted a uniform rate and adjusted the resultant regressive burden distribution more effectively elsewhere in the tax and income transfer system.

2. Is a VAT inflationary?

An often-voiced concern in countries without a VAT is that the introduction of the tax would set in motion a spiral in which the tax, prices, and wages would feed on each other--that is, a VAT would be inflationary. If true, this would be particularly serious in Central and Eastern European countries where inflation, open and latent, is a continuing problem. However, there is no evidence that the inflation spiral occurred in other European countries. To be sure, normally the introduction of a VAT would be accompanied by a general price increase of some 0.7 percent for each percentage point of tax if its introduction were accommodated by the monetary authorities, as is ordinarily done. The crucial question, however, is whether this onetime increase would lead to further price escalations.

Alan Tait collected empirical evidence on this issue by observing the movements in the consumer price index (CPI) in several countries before and after the introduction (or modification) of the VAT. <sup>1/</sup> Successive CPI numbers were used to fit a trend line, which was characterized by the intercept at the vertical axis (the time the tax was introduced) and, more important, by its slope, expressing the rate of price change. If the slope and intercept of the CPI did not change after the introduction of the VAT, obviously the tax had not affected retail prices. If the slope of the trend line remained the same, but the intercept changed, the index simply shifted in response to the price rise that accompanied the new tax. If the intercept did not change, but the slope of the trend line became steeper, the rate of price increase (inflation) had accelerated, possibly on account of differential price changes and relative tax burdens, uncertainty, and tax myopia. And, finally--the worst of both worlds--the index could shift as well as accelerate. Thus, in summary, Tait tested four hypotheses: (a) little or no price effect; (b) shift (a onetime price effect); (c) acceleration (inflation); and (d) shift plus acceleration.

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<sup>1/</sup> See Tait (1990).

The data suggest that in 11 of the 13 OECD countries surveyed, considering all circumstances, the introduction of the VAT had little or no effect on retail prices or simply resulted in a shift of the CPI trend line (onetime effect). The answer to the question raised above, therefore, is almost categorically no. In only two countries, Italy and Norway, could some interaction between the VAT and inflation be discerned. In Italy, the rate of inflation accelerated following the introduction of the VAT in 1973, largely on account of uncertainty and widening profit margins. In Norway, the tax change fed a sustained price-wage increase. The public anticipated that the VAT would increase prices without sufficient compensation in the form of lower income taxes. But, as noted, in most countries, the VAT had little or no effect on the CPI (eight countries) or merely resulted in a onetime shift in the CPI (three countries).

But this is not the whole story. As elsewhere, there would be offsetting price effects because of the elimination of the cumulative and single-stage turnover taxes now being levied in Central and Eastern European countries. In fact, if the overall rate of the VAT proved to be the same as the effective rate of the present turnover taxes (both expressed as a percentage of total consumption expenditures), the net price effect could be nil. This argument assumes that the old turnover taxes are reflected in price, which may not be the case. If the VAT were to cause a price effect, it would, in practice, be difficult to disentangle from the large changes in relative prices inherent in the transition process.

### 3. How does a VAT affect economic growth?

In the forthcoming years, all Central and Eastern European countries will have to undertake massive investment programs to replace and modernize their aging industries. Savings, by government as well as private households, are required to finance these investments in a noninflationary manner. Therefore, a VAT should also be judged as regards its effect on saving. Given the amount of revenue to be raised, the effect should be judged relative to the effect on saving of another broadly based tax, such as an income tax.

Consider an individual who has the choice to consume R 100 in year one or to postpone consumption by putting the amount into a savings account where it earns interest at 10 percent until the accumulated amount of R 110 is withdrawn for consumption in year two. Suppose that the individual is subject to a VAT or an income tax, both levied at a rate of 20 percent. Under the VAT regime, the individual could consume R 80 in period one (R 100 minus 20 percent tax) or R 88 in period two (R 110 minus 20 percent VAT): 10 percent more than in period one. Under the income tax regime, on the other hand, he would be able to consume R 80 in period one, but only R 86.40

in period two (R 88 minus 20 percent of R 8): only 8 percent more than in period one. 1/

This example shows that a VAT is neutral with respect to the choice whether to consume now or to save for future consumption. Although a VAT reduces the absolute return on saving (that is, the amount of future consumption), the tax does not reduce the net rate of return on saving. In contrast, an income tax does affect the net rate of return on saving, because both the amount saved and the interest earned on that amount are subject to tax. In the example, the net rate of return on saving under the income tax regime, that is, 8 percent, is 20 percent less than the return under the VAT regime, that is, 10 percent. Therefore, if it is assumed that saving increases as the net rate of return on saving increases, a VAT is superior to an income tax in promoting economic growth.

Finally, while it is often said that a VAT has a favorable effect on the balance of payments, this argument is unconvincing. Some marginal improvement in the trade balance might occur if the tax on exports is more fully eliminated under a VAT than under the type of turnover tax now in place. Also, a VAT would not discriminate in favor of imported products. This happens under the current system because product prices incorporate cumulative turnover tax elements that may not be included in the price of imports. Some improvement in the trade balance might also occur if the VAT were substituted for various payroll taxes and if the latter were also shifted to consumers. But this would happen only if the payroll taxes, when reduced or eliminated, were "unshifted" and, more unrealistically, if exchange rates were fixed. Again, this discussion assumes that the various taxes are reflected in price.

#### 4. Can a VAT be administered by subordinate levels of government?

Various Central and Eastern European countries, such as the Czech and Slovak Federal Republic, the Soviet Union, and Yugoslavia, have or are considering more explicit federal forms of government. No doubt, tax assignment issues (who should tax, where, and what?) will occupy an important part of the forthcoming discussions. Subordinate levels of government (be they republics, states, regions, or provinces) should be interested in the possibilities of administering a VAT independently of or in cooperation with the national government. In this regard, the experience of the European Community as it moves from a customs union with border controls toward a single market without border controls should be instructive.

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1/ This example is taken from U.S. Department of the Treasury (1984), p. 19. The effect still holds if allowance is made for a lower income tax rate to yield the same revenue.

In the European Community, as in other countries, the VAT in respect of goods crossing national frontiers has so far been levied on the basis of the destination principle. This principle, implicitly endorsed by the GATT, holds that goods should be taxed in the country where they are consumed, rather than the country where they are produced. Therefore, goods that are exported are "untaxed," and goods that are imported are taxed on the same footing as domestically produced commodities. The corrections required by the destination principle--so-called border tax adjustments--ensure that manufacturing location decisions are not distorted and that the revenue of the tax accrues to the country of consumption. 1/ So far, in the European Community, the adjustments have been administered by customs officials in conjunction with border controls. Obviously, if the border controls are abolished in 1992, other mutually acceptable arrangements must be made.

In thinking through the issues, for federal type of Central and Eastern European countries as well as for the member states of the EC, it seems that three basic criteria, alluded to above, should be kept in mind: (1) manufacturing location decisions should not be distorted; (2) whatever is done, the adjustments should not require border controls; and (3) if possible, the subordinate governments (or member states) should be able to administer the VAT themselves and set their own rate(s). In seeking a solution, one should assume that the VAT has a common base and few exemptions. A VAT with many exemptions causes cumulative effects that render its impact indeterminate. Hence, the adjustments that are required when goods enter interjurisdictional trade are also unclear.

Currently, two systems of border tax adjustments without border controls, but based on the destination principle, are under review in the EC. Under the first system, called the tax credit clearing system, proposed by the Commission, the destination principle would be administered on a Community-wide basis. 2/ Intra-Community exports would be taxed; importers would be permitted a credit for the tax invoiced by exporters of other member states; and the VAT administration of importing states would be able to claim the amount of the tax credit shown on the importer's return from the VAT administration of the exporting states under the aegis of a mutual clearing system. Obviously, only the balances of net exporting member states would have to be settled. Conventional border tax adjustments would be retained for trade with third countries.

Under the second system, favored by most member states because it does not require a mutual clearing system, current border tax adjustments (tax rebates on exports and full taxation of imports) would be maintained, but the adjustments would be shifted from the border to the books of account of the first taxable business inland under a so-called deferred payment system

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1/ For a fuller treatment, see Cnossen (1990).

2/ The tax credit clearing system was anticipated in Cnossen (1983). The EC proposal can be found in Commission of the European Communities (1985). For an evaluation, see Cnossen and Shoup (1987).

or postponed accounting system. Not taxing imports at borders would imply, under the system, that first inland users would not be able to take a tax credit as an offset against the tax on sales; by implication, they would be taxed on the full value of the imports. 1/ Whereas the tax credit clearing system brings a VAT approach to the problem (no breaks in the taxable production-distribution chain), the deferred payment system introduces an RST type of suspension into the system with respect to goods moving from one member state to another. Both systems require agreement on the treatment of cross-border purchases by consumers (particularly of "big ticket" items) and exempt entities, as well as cross-border sales by mail order firms. 2/

Either of these approaches would be suitable for a federal fiscal system in which subordinate governments would administer their own VAT without border controls. Obviously, rates between adjacent jurisdictions should not be far apart, but uniformity of rates, in contrast to uniformity of the tax base, would not be necessary. Small jurisdictions would not be able to set their VAT rates completely independently of the rates in large adjacent jurisdictions, unless they decided to snatch part of that jurisdiction's tax base. Luxembourg is an example of the latter phenomenon. The repercussions of tax base snatching would be most serious if one of the jurisdictions decided to opt out of the VAT.

Administratively, the easiest way to levy the VAT in a federation would be to have a national tax in conjunction with a revenue-sharing arrangement with subordinate units of government based on consumption or some other key, as in Austria and Germany. Elsewhere, however, subordinate governments might object to the implied surrender of tax sovereignty. This approach or the arrangements envisaged for the EC are far superior to the idea aired by some economists that the VATs of a federation or common market should be administered on the basis of the origin principle; that is, goods should be taxed where they are produced, not where they are consumed. Whatever its economic equivalence to the destination principle, under a tax-credit VAT, the origin principle would require valuation at export (to catch the value

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1/ Technically, the deferred payment system, which was pioneered in the Benelux countries, taxes imports to the first inland user, but simultaneously allows him a tax credit for the same amount. In effect, this means that imports are not taxed until sold, directly or indirectly, by the first inland user. It will be appreciated that this system permits administrative control over imports, particularly when in transit, yet does not involve the payment of tax at an earlier stage than would occur if the goods had been produced domestically.

2/ For the time being, the Community has opted for the deferred payment system (exports free of VAT). Exporters will have to report on their sales to customers in other member states on a quarterly basis. Also, it has been decided that the border controls over excisable goods will be shifted from borders to bonded warehouses inland.

added domestically), as well as at import (to make sure that the value added abroad is not taxed at home). This situation would be far worse than current border controls in the EC. Moreover, the revenue would accrue primarily to the producing states.

5. Is the VAT a money machine?

Some businessmen believe that the VAT is a money machine, a tax instrument through which government can maintain or increase its role and scope. As a broadly based tax, the VAT is relatively easy to collect and fairly difficult to evade. Because it produces few distortions, there appears to be no "natural" brake on increases in the tax rate of, say, up to 20 percent. A revenue-productive tax might enable some countries to continue to finance high levels of wasteful government expenditures. This might be viewed as a disadvantage in countries that are trying to reduce the pervasive influence of the state. Although there may be some truth in the money machine argument, I am inclined to believe that a continuation of the distortionary effects of the current turnover taxes and the persistence of high budget deficits are greater evils than the introduction of a VAT intended to eliminate these defects.

One way to restrain the alleged revenue-raising properties of a VAT is to make the tax as obvious as possible. A helpful feature is that a VAT must be shown separately on invoices so that the purchaser can claim the tax credit. Some countries forbid this practice with respect to sales to consumers, because they are afraid that the relevant invoices will end up as tax credit vouchers for taxpaying firms. This fear appears exaggerated because most consumer purchases cannot be confused with business inputs. Anyway, an exception to the nonquotation rule would have to be made for purchases by business from retailers, because it is imperative that the tax credit be passed on. On balance, there is no reason why a VAT should not be shown on invoices for consumer purchases. Interestingly, this practice might make a VAT less of a hidden tax than, say, an income tax collected through wage withholding.

IV. Tax Coverage, Base, and Rate Issues

Once it has been decided to introduce a VAT, three major kinds of structural issues must be addressed: (1) the coverage of the tax: should the VAT extend through the retail stage and how should small traders, farmers, and public sector bodies be treated?; (2) the base of the VAT: which services should be exempted, and, in particular, how should housing services and secondhand goods be treated?; and (3) the rate structure of the tax: if a uniform rate is not feasible because it causes inequitable tax distribution, how should rate differentiation be effected? These issues must be resolved if the VAT is to be successfully implemented.

1. Should a VAT extend through the retail stage?

During the transition to a market economy, the number of small businesses in a formerly planned economy will increase dramatically. Initially, new small traders and craftsmen can hardly be expected to keep comprehensive records of their transactions. In the event, it might be thought that the VAT, at least to begin with, should be confined to the manufacturers stage where business units typically are larger and accounts better maintained than at subsequent trading levels.

Interestingly, no country in the OECD area, and very few countries elsewhere, have followed this route. Nearly all countries with a VAT extend the tax through the retail stage--and for good reasons. As an economy matures, a manufacturers' VAT is beset by major valuation and trade organization problems that are difficult to cope with and that draw valuable administrative resources away from audit and compliance control. The term "manufacturing" is difficult to define properly (should it include such activities as mixing, blending, and packaging?); sales at different trade levels (by manufacturers to wholesalers as well as to retailers) require adjustments of the taxable value; transfers between related parties (from manufacturers to subsidiary wholesalers or to retailers) demand careful scrutiny; and sole distributors, particularly of imported goods, tend to be favored over domestic distributors (typically, the latter will undertake fewer marketing functions, the cost of which is included in the value for tax of the domestic manufacturer).

In addition to these technical problems, a manufacturers' VAT, which does not include distribution margins, distorts producer and consumer choices. Given the same tax rate, luxury products tend to be favored over essential consumer items because their trading margins are usually greater. Furthermore, producers are induced to push as many trading functions forward as possible so as to keep their cost outside the tax base. Because trading margins are not included in the value for tax and because it is difficult, conceptually as well as administratively, to tax services under a manufacturers' VAT, the rate of such a tax would have to be approximately twice as high as the rate of a retail type of VAT to raise the same amount of revenue. Obviously, this higher rate would aggravate the distortions inherent in a manufacturers' VAT.

There are strong arguments, therefore, to extend the VAT through the retail stage from the beginning. The argument that the retail stage comprises numerous small businesses that keep such inadequate records that it would be wasteful of administrative resources to try to levy the tax on them suggests that the appropriate coverage of a VAT is not a "stage" problem, but rather a small-firm issue. There is no reason why large and medium-size retailers, which may be assumed to keep adequate accounts, should not be registered. Moreover, the appropriate treatment of small businesses is an issue that concerns all levels of production and distribution--producers, wholesalers, as well as retailers. In other words,

the small-firm issue is not solved solely by excluding the retail stage. A VAT should extend through the retail stage, and the sole criterion for tax coverage should be the size of the business, regardless of the stage at which it is situated. The focus should be on the design of an appropriate small-firm exemption.

2. How should small traders and craftsmen be treated?

Generally, small traders and craftsmen face relatively higher costs in complying with the obligations imposed under the VAT than do other taxpayers. Similarly, the tax administration has to incur relatively higher costs in enforcing the tax on them. For these and other reasons, most OECD countries with a VAT exclude small-scale traders and producers with an annual turnover below a specified amount, referred to as the registration threshold, from the obligation to register, furnish returns, and pay tax, or to keep prescribed records. The VAT paid by small firms is confined to the tax invoiced to them by their registered suppliers. While small firms benefit from not being taxed on their own value added, they suffer from not being able to pass the VAT on to their customers, because, as nonregistered users, they are not allowed to issue tax invoices. <sup>1/</sup> Nor can they obtain a refund when exporting their output or when purchasing expensive machinery. For this reason, generally, the small-firm exemption is optional.

In addition, or in lieu of the turnover exemption, several OECD countries with a VAT have alternative schemes for simplifying the calculation of the VAT liability of small firms or reducing that liability:

(1) Belgium and Spain exempt small traders but require their suppliers to impose an equalization tax, that is, a higher-than-normal rate of VAT, on purchases. This scheme has the disadvantage of requiring identification of the purchaser, who has no interest in providing particulars of his tax status.

(2) Austria, Germany, and The Netherlands, in addition to exempting very small traders, reduce the net VAT liability of other small traders in the form of a percentage of either the turnover or the tax itself. Here the drawback, of course, is that the VAT liability has to be computed before the relief can be provided.

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<sup>1/</sup> It will be noted that this effect does not occur under the Japanese optional direct subtraction method. Because purchases of exempt firms are deductible from sales of registered firms, regardless of whether or not tax has been paid in respect of them, exempt firms benefit fully from the relief even if they sell their output to registered firms (and the benefit is passed on to registered firms). As a result of these arrangements, however, more tax than actually has been paid is refunded at the point of export and more tax than is actually being paid with respect to similar domestically-produced commodities is imposed on imports.

(3) Belgium, Greece, and Spain exempt some small firms by reference to the type of trade they carry on, for example, peddlers and hawkers or low-margin outlets. Problems arise in identifying the type of trader or the type of product eligible for the relief.

(4) France has an elaborate presumptive assessment (forfait) system, with no registration threshold, which requires the computation of the VAT liability on a case-by-case basis. Similarly, Spain computes the VAT liability of small traders on the basis of various external indicators, such as the size of the business premises, its location, and the number of employees.

(5) Several countries have simplified assessment schemes for small traders whose turnover is above the registration threshold but who are really too small to comply with regular requirements. Under these schemes, the net VAT liability is computed as a specified percentage of turnover or purchases. Also, such schemes may be necessary when, say, retailers sell goods subject to more than one rate without being able to account for them separately.

It would seem good economic and social policy if Central and Eastern European countries were to adopt a fairly high optional registration threshold. The small-business sector, still in its infancy, can hardly be expected to keep adequate records for VAT purposes. Equally, for the time being, the tax administration will be fully occupied with collecting the new tax from large and medium-size businesses, which have to introduce new accounting systems and which are not used to complying voluntarily with a type of tax such as the VAT. To prevent avoidance, the exemption should apply to the combined turnover of all outlets owned by an individual. Furthermore, optional registration should be allowed but should be mandatory for a minimum period of, say, five years.

As small businesses prosper and as inflation erodes the real value of the small-firm exemption, more traders would be covered by the VAT, and the tax office would presumably be in a better position to deal with them. At that time, countries might contemplate the introduction of a simplified scheme for specified small businesses, which would provide for the presumptive computation of the tax liability and, if desired, modified administrative concessions to small taxpayers. Such taxpayers might be obliged to furnish returns less often than regular taxpayers, to maintain simplified records, and to keep their accounts on a payments, rather than an accrual, basis. Although it would not be advisable to spend excessive administrative resources on presumptive assessment schemes, some arrangement may be necessary, particularly if small firms would not be subject to the income tax.

3. Should farmers be taxed?

The VAT treatment of farmers and other primary producers engaged in agriculture, animal husbandry, horticulture, viticulture, forestry, and fishing requires special attention, because of their importance to the economy and the essential nature of their products. If taxed, farmers would have to comply with the usual VAT obligations. If they were exempted, however, while they would not incur compliance costs they would still have to pay the element of VAT on their inputs of feed, seed, fertilizer, equipment, and machinery for which a deduction cannot be provided. Because farmers are situated at the beginning of the production-distribution process, this element of tax would cascade throughout the process. Clearly, therefore, a straightforward exemption of primary sectors (without compensatory measures) would be neither fair nor good social policy.

In the various OECD countries, <sup>1/</sup> farmers are either taxed or exempted. New Zealand, Sweden, and the United Kingdom treat farmers in the same manner as any other producers of taxable products, that is, they have to comply with the same requirements for furnishing returns and making payments. Generally, modifications of these requirements can be obtained only under the small-firm exemption.

Other OECD countries do not require farmers to register and compensate them for the tax borne on their purchases of VAT-liable inputs. These (optional) compensation measures take various forms:

(1) In Belgium, Ireland, The Netherlands, and Spain, the purchaser of agricultural products receives a presumptive tax credit approximately equal to the tax borne by the farmer on his inputs. Obviously, he is expected to pass that benefit on to the farmer, who is not otherwise involved in the compensation procedure.

(2) In Austria, Germany, and Luxembourg, the primary producer is taxed at a rate (different from the normal VAT rate) approximately equal to the rate of tax (expressed as a percentage of sales) he bears on his inputs. As a result, no tax needs to be paid nor a return furnished, but the farmer is able to invoice the tax to the purchaser of his products, who subsequently can take a deduction for it.

(3) In France and Spain (exporters only), farmers are compensated directly by the government for the tax borne on their inputs. The amount is expressed as a flat-rate percentage of turnover.

(4) Portugal exempts farmers without compensation, but zero rates the main agricultural inputs, such as feed, seed, and fertilizer, while it applies a lower rate to machinery and equipment. Portugal also zero rates unprocessed farm products.

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<sup>1/</sup> See OECD (1988), chapter 9.

The most appropriate approach to the VAT treatment of farmers in Central and Eastern European countries depends to a large extent on the size of production units. Compared to OECD countries that exempt farmers, in most countries the primary sector is organized in the form of huge production units, called agribusinesses. The only sensible VAT treatment of these primary sectors is registration and payment of tax, which would ensure that agricultural products bear a more even VAT burden than they would if they were exempted. The small-firm exemption would then apply to small production units, for example, employees owning plots on the farm and selling part of their output on the market. In other countries, such as Poland, where farms have not been collectivized, an exemption approach might be adopted in conjunction with some flat-rate scheme. Optional registration, as in other countries, should be allowed.

4. Does it make sense to tax public sector bodies?

The proper VAT treatment of public sector bodies is very important in Central and Eastern European countries, which are likely to retain a substantial number of these entities. Even as former state enterprises are granted autonomy and various government agencies are privatized, the reach of the public sector is still likely to be greater than in Western European countries. Under the VAT, public sector bodies may be either exempted or taxable. Obviously, it does not make sense to tax the Defense Department, if only because it would be impossible to value its services. On the other hand, a good case can be made for taxing telecommunications and postal services, which charge for their services through telephone bills and the sale of postage stamps.

To begin with, public sector bodies should always pay tax on their purchases of taxable supplies, even if this means that they pay tax that is collected simultaneously by another government agency. This approach safeguards the integrity of the VAT in that taxable suppliers do not have to make a distinction between taxable and nontaxable goods and services, and consumers cannot find illegitimate access to untaxed supplies. Thus, in countries with a VAT, supplies of, say, stationery and personal computers are taxed along with roads, bridges, and tanks. Obviously, for exempt government agencies, financed out of general revenue, there would be no net effect on the budget, since both VAT receipts and the appropriations to pay for the tax would be higher. Arrangements should be made to compensate subordinate units of government for the increase in the cost of their purchases. Taxable public sector bodies, on the other hand, would be able to credit the VAT on purchases against the VAT on sales.

Public sector bodies should register for VAT purposes according to whether they generate goods and services that are used by or benefit businesses and individuals (except, of course, goods and services explicitly exempted by the legislator), and for which a price is charged. Such chargeable services include all public utilities. Exceptionally, on administrative grounds, consideration might be given to exempt government fees and

charges for, say, the registration and issuance of various documents, such as passports and driver's licenses.

The Sixth Directive of the EC takes a somewhat narrower view of the taxation of public sector bodies. In principle, it requires public sector activities to be taxed only if their exemption would involve "significant distortions of competition" vis-à-vis the private sector. This is broadly interpreted, however, and, in practice, the result may come close to the situation in New Zealand, which taxes a wider range of government activities. In the EC, public sector bodies must be registered for VAT with respect to telecommunications; the supply of water, gas, electricity, and steam; the transportation of goods; port and airport services; passenger transport; warehousing; the activities of travel agencies; the running of staff shops, cooperatives, industrial canteens, and similar institutions; and various other activities.

As a minimum, Central and Eastern European countries should tax all of the above-mentioned activities of public sector bodies. More generally, the distortion-of-competition criterion may be too narrow a concept for judging the VAT status of public sector bodies. If a government agency has a monopoly on the supply of certain services, it cannot be said to compete with private sector firms in a formal sense. The post office, for example, may not compete with other letter carriers, but it does compete with other forms of transportation and communications, such as delivery services and newspapers. Hence, the post office should be registered for VAT purposes.

Broadly, nonprofit institutions and government should be treated in a similar fashion; sales of goods and services that would be taxable if supplied by business should also be taxable if supplied against a charge by nonprofit institutions, for example, canteens and gift shops. However, the VAT should not be applied to services that are supplied without consideration, for example, by churches and charitable institutions. After all, there would be no basis on which to calculate the tax. Even if nonprofit institutions are not taxable on services rendered, their purchases should be taxed on the basis that suppliers should not be required to differentiate their sales according to the end user. Care should be taken that various sports and social welfare organizations, zoos, and similar nonprofit bodies do not engage in (untaxed) activities (at a scale in excess of, say, the small-firm exemption) that compete directly with similar (taxed) activities of the private sector.

5. Which goods and services should be exempted?

The integrity of a VAT is safeguarded best if it applies to all final goods and services. Taxing one commodity but not another distorts consumer choices and reduces the tax intake at a given rate, although some concessions must be made for social policy considerations or on administrative grounds. Thus, it would be difficult to defend and, in the absence of a charge, to administer the taxation of health, education,

social, and religious services. In the EC, the Sixth Directive exempts these public interest activities, as do other OECD countries. As discussed above, this means that no credit is given for the tax on purchases. Given the nature of the exempt services, which are rendered directly to consumers and which are often subsidized, distortions should be small. There is no reason why Central and Eastern European countries should adopt a different stance. 1/

A second group of activities exempted under the EC's Sixth Directive includes financial transactions, insurance, gambling, and immovable property, although, with the exception of gambling, the Directive provides the option of taxing them. The exemption of immovable property is a roundabout way of excluding current housing services and transfers of used real estate from the base, but of taxing newly created property (see below). To tax gambling, other more appropriate levies on admissions and payouts are available.

There are various problems in trying to tax financial services. Should the tax be imposed on the full price--the interest--of the financial service, or should the tax be confined to the gross margin of the intermediary as measured by the difference between his revenue from lending and the cost of borrowing? Because of these conceptual difficulties, as well as practical problems in measuring inputs and outputs, all OECD countries have opted for the exemption approach. 2/ After considerable study, Canada and New Zealand, too, have decided to exempt financial services. 3/ OECD countries with a VAT zero rate such services when they are exported, which means that the tax on inputs must be prorated between exempt and zero-rated activities--not an easy task.

For similar reasons, OECD countries exempt all forms of life insurance from the VAT. Nonterm life insurance premiums, for instance, have a savings element that is difficult to separate from the portion that is attributable

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1/ It should be noted, however, that if any of the above-mentioned activities are performed on a commercial basis, they should be made taxable. Thus, say, computer courses may be provided for a fee and health spas may operate on a profit basis.

2/ It should be noted, however, that the Sixth Directive taxes secondary financial services, such as financial advice, debt collection, keeping securities, and the rental of safety deposit boxes.

3/ The value added of financial activities might be computed by the addition method as is done in Argentina and Israel. This method, however, does not permit the use of tax invoices, which enable the recipient of financial services to take credit for the tax. Hence, cumulation of tax occurs. Zero rating would achieve neutrality, if desired, but would require registration and refund of tax.

to the costs of administering the insurance scheme. Other forms of insurance are also exempted, except in New Zealand, which taxes, fire, general, and accident insurance premiums. To confine the tax to the gross margin, insurers are allowed a credit for the tax fraction of any indemnity payments. A number of countries subject nonlife insurance premiums to a separate tax. Nearly all countries zero rate exported insurance services.

While the taxation of financial services and insurance is theoretically desirable, a practical solution has so far eluded the experts. Probably the best advice for Central and Eastern European countries, pending any new arrangement in the EC, is to adopt the exemption approach of the EC rather than experiment where other countries have failed.

6. How should immovable property be taxed?

The treatment of immovable property, that is, the construction, lease, and sale of land and buildings (real estate) is one of the more complicated issues under the VAT, and warrants early consideration. In most industrial countries, housing services, comprising rents and rental values of owner-occupied property, constitute 15 percent or more of total annual consumption expenditures, too large a portion to be ignored under a broadly based VAT. Moreover, once an essential part of the tax base has been excluded, it becomes exceedingly difficult to recoup.

It is probably difficult to improve on the basic approach to the treatment of immovable property found in the Sixth Directive, which, with minor differences, is followed by nearly all OECD countries. Basically, the Sixth Directive exempts the sale of land, used buildings, and the leasing and letting of immovable property. <sup>1/</sup> In conjunction with optional registration, in effect this is an indirect way of taxing all new housing and, if desired, providing a credit for the tax on new industrial and commercial real estate (subject to conditions prescribed by the tax office). In analyzing the issues, one should distinguish construction activities from the lease or sale of immovable property.

As regards construction, nearly all countries in the OECD area tax building materials, as well as repair and maintenance services, at the standard rate. Logically, these materials and services, broadly interpreted as construction activities, add up to a new building. Most countries recognize this and under their VATs, newly created buildings are subject to the standard rate as well. If the rate on new buildings were different, the effec-

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<sup>1/</sup> Except the letting of hotel and boarding rooms, camping and holiday sites, parking space, berths and storage spaces for boats, which are taxed. Permanently installed equipment and machinery form an exception to the exemption of immovable property. Since, in most EC countries, these items are immovable property by law, their exemption along with land and buildings would imply that the tax credit would have to be denied. Hence, the exception.

tive rate on materials and services embodied in these buildings would, of course, be different from the tax rate applied to materials and services used for maintaining, repairing, and renovating the existing housing stock. This would create distortions, raise administrative problems, and form a breeding ground for tax evasion and avoidance, as evidenced by the experience in the United Kingdom, which applies the standard rate to all construction other than the creation of new buildings, which are zero rated.

While new buildings are taxed upon first sale, subsequent sales are exempt, as noted above. This means that nonregistered individuals who buy a new dwelling pay the full VAT on it. In effect, in their case, the VAT on new residential property is viewed as the capitalized value of the tax that would have been payable in respect of current housing services had the VAT been applicable to rents and imputed rental values. Because it is hardly feasible to tax imputed rental values and because it might be considered unfair to tax rents, housing is treated as an exempt sector. 1/ Dwellings and business buildings, which can be close substitutes, are accorded the same treatment under the Sixth Directive. Potential cascading effects are eliminated by permitting commercial lessors to apply for registration and payment of VAT. They then obtain a full credit for the tax on purchase, and pay VAT on rents received and on the sale of the building. Usually, this treatment is subject to the condition that lessor and lessee are both registered taxpayers or agree to become so. Thus, the option is not available to lessors of apartments and houses.

Countries that follow this approach also exempt the sale of immovable property other than new buildings. This is logical, although it means that increases in the value of the stock of building services are not taxed nor is a tax credit provided for decreases in that value. Taxing the transfer of (exempt) real estate would imply that a (presumptive) tax credit would have to be given for the tax, if any, paid on the purchase of the property, a choice that no country has elected. Again, owners of industrial and commercial real estate could become registered taxpayers and receive the usual VAT treatment. The sale of their property would then be taxable, but any subsequent registered owner would be able to claim a tax credit if he, in turn, were to lease or sell the property to a registered taxpayer. Although most countries exempt the sale of used real estate, they do levy gross transfer taxes (registration duties) on the sale. If the VAT as well as the transfer tax applies, usually the VAT is levied in lieu of the transfer tax. 2/

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1/ Exceptionally, Austria and Japan tax rents, which may be the better approach if most immovable property in the rental sector is owned by commercial lessors, building societies, etc.

2/ Property transfer taxes are difficult to justify on equity or neutrality grounds. Indeed, these transfer taxes can be likened to the old cascade type of turnover tax, which the VAT replaced in many countries.

While it seems advisable that Central and Eastern European countries adopt the EC treatment of immovable property, they might consider deviating from the Sixth Directive in two ways. First, land could follow the same treatment as buildings. This would obviate the need to distinguish between the value of a building and the value of the land upon which it stands. Moreover, because most agricultural land is owned by collective farms, which would be taxable for VAT purposes, a more consistent treatment of the inputs to the agricultural sector would be provided (most European countries exempt land because farmers are also exempt). Second, in contrast to the EC, Central and Eastern European countries might consider taxing the transfer of exempt real estate (land and buildings) on the gain realized at the time of sale, which clearly represents value added. Although the gain should be subject to income tax as well as the VAT, it might be easier to tax it under the latter.

7. What about secondhand goods?

The treatment of secondhand goods, such as motor vehicles, household appliances, works of art, antiques, and collector's items, deserves to be mentioned briefly. It might be argued that if these goods were to be taxed on the gross consideration after having been bought and subsequently resold by a registered dealer, the new tax would come on top of the old tax paid at the time of purchase by the user. Thus, the VAT would deter the reuse of goods and would divert the trade in secondhand goods from registered traders to private channels. As a result, specialization would suffer.

Different solutions to the problem are found in the OECD area. New Zealand and Sweden allow registered traders in secondhand goods a full deduction for the tax that may be assumed to be included in the purchase price of an item bought from an unregistered person. Most Southern European countries, as well as Belgium and the United Kingdom, tax registered traders only on their gross margin by allowing the purchase price as a deduction from the sale price. Unlike the first approach, the credit for tax is not available until the good is resold. The Benelux countries tax specified secondhand goods at a lower-than-standard rate. Spain achieves the same effect by applying the standard rate to a proportion of the sale price. Finally, Austria and Germany do not have any special rules for the trade in secondhand goods.

It seems that the latter solution is the preferred one for Central and Eastern European countries. As in Austria and Germany, a large part of the trade in secondhand goods might not be affected if it were sold at auction on behalf of nonregistered vendors. Only the auctioneer's commission would then be subject to VAT as services rendered. A specific exemption might be provided for major items, such as motor vehicles, so as to leave no doubt about their tax status. Most of the trade in other secondhand items would probably fall under the small-firm exemption and thus would not be taxed again. Although very neat in theory, the New Zealand and Swedish approach

implies that exporters of secondhand goods receive a VAT refund, clearly something that Central and Eastern European countries would not want to do.

8. What kind of rate structure should be applied?

Although the arguments in favor of a uniform rate may be strong, Central and Eastern European countries may find it politically difficult to adopt such a rate. Most parliamentarians would probably be inclined to disregard the theoretical arguments and to point toward the actual situation in the EC member states (see the Appendix). Moreover, they would argue, a dual rate structure, comprising a lower rate on food products, medicines, household fuel, books, newspapers, and public transportation, and a standard rate on all other goods and services, has been explicitly advocated by the European Commission as the basis for VAT harmonization in the Community. In other words, there seems to be no compelling reason for them to blaze a new trail. Also, food occupies a more prominent position in the household basket of the poor than it does in most member states of the EC, and income transfer systems are probably more rudimentary.

If a dual rate structure is desired, there are three ways to tax essential consumer items lower than other items: (1) a lower-than-standard, but positive, rate; (2) an exemption; and (3) a zero rate. A lower-than-standard, but positive, rate, as advocated by the EC Commission, is the preferred option. To avoid troublesome delineation issues, it should apply to all food products, including those served in hotels and restaurants. Spain, for instance, does this most rigorously by subjecting all foods for human or animal consumption (except soft drinks and alcoholic beverages) to the lower rate of 6 percent, which is half the standard rate. Following some unsatisfactory experience with trying to distinguish between essential and nonessential food items, in 1988, The Netherlands put all of them in the lower rate category. Basically, the German approach to the VAT treatment of food is similar. As in the EC, the coverage of the lower rate might be extended to medicines, household fuel, books, newspapers, and public transportation, but it should not include electricity and telecommunications. Moderation is the key to deciding which goods and services should be taxed lower. Otherwise, the lower rate degenerates into a standard rate.

In countries with many small farms, such as Poland, there might be administrative advantages to using the exemption approach for a limited number of unprocessed foodstuffs that are sold in their "original" or "natural" state. A disadvantage of the exemption approach is that over time it would have to be phased out as markets become more closely integrated and trading units larger. Exemption would not be a good idea for most other Central and Eastern European countries with large farming units that have branched out into agribusinesses, because of the uneven and cumulative effect of the tax on agricultural inputs and the difficulties of administering the exemption once the produce has left the farm gate and entered taxable trading channels. For similar reasons, the exemption approach would not be

advisable for, say, electricity or coal, which is produced with very capital-intensive production technology and which may be a major input for another product.

A zero rate is the neatest way of ensuring that the poor (as well as the rich) do not pay any tax on their food. The United Kingdom and Ireland zero rate food, except when supplied by hotels and restaurants. For reasons given above, however, a zero rate is not a very effective instrument for helping the poor. <sup>1/</sup> It is also administratively burdensome because it involves collecting tax from thousands of taxpayers, only to refund it to thousands of others. In contrast, the practice in most EC member states, sanctioned by the Commission, is to set lower rates at such a level that, as a rule, there would be no refund. This seems the best advice for Central and Eastern European countries contemplating a dual rate structure. An important administrative advantage of the EC approach is that a "bell" starts ringing in the VAT office whenever a refund is requested. This is not the case in Ireland and the United Kingdom, because the extensive use of the zero rate means that refunds must be issued in a routine manner.

#### V. Legal and Administrative Features

Once a country has decided to introduce a VAT, policymakers will want to implement it as soon as possible, while still allowing sufficient lead-in time. To be successful, the VAT must be administered by the most appropriate tax department and appropriate machinery must be installed to facilitate assessment and collection.

##### 1. What is the lead-in time of a VAT?

Conventional wisdom suggests that it requires 18 to 24 months to make a VAT fully operational. Once the Central and Eastern European countries decide to introduce the VAT, they will find it helpful to draw on the extensive experience of other European countries. Existing registration and payment systems for turnover tax purposes should facilitate the introduction of the VAT in these countries although they may be hindered by a lack of familiarity with modern accounting approaches based on market prices and valuations. Although a VAT is not as complicated as many observers believe, the unfamiliarity with an accounts-based levy and the need for intensive

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<sup>1/</sup> Some would argue that if food were not subject to a VAT, families at the lower end of the income distribution might have more to spend on high-protein foods and consequently be able to work harder. As Shoup (1965) has pointed out, regressive product taxes may reduce gainful consumption, defined as "consumption of a type such that, in the event that it decreases, the output of the economy will decrease, either now or later, by more than the decrement in consumption."

taxpayer education may require an extension of the usual lead-in time by, say, six months.

The preparation and introduction of a VAT involves five major tasks (which are partially overlapping): (1) resolve major structural policy issues and secure parliamentary approval of the VAT law; (2) design administrative systems and procedures (including computers); (3) prepare staff instructions (manuals); (4) train staff; and (5) provide taxpayer advisory services.

The major structural issues involve decisions that the Cabinet and Parliament must make on the coverage of the VAT, the tax base, and the rate structure, as outlined in Section IV. After these decisions are made, the VAT law, explanatory memorandum, and regulations should be drafted. The design of administrative systems and procedures includes decisions on the organizational structure of VAT offices, the allocation of staff positions, and the appointment of staff, as well as the design of systems for taxpayer registration, return and payment processing, and audit procedures. In this connection, special attention should be paid to the development of a computer system and various forms. Next, manuals should be written on technical aspects, processing and procedures, taxpayer advisory activities, and audit and compliance. In turn, these manuals would form the basis for the training of staff. Since the VAT is a self-assessed tax based on voluntary compliance, extensive advisory visits to prospective taxpayers are essential.

Experience indicates that it is useful to draw up a detailed timetable for the various steps to be taken from the day of the VAT's inception to the first day of implementation. Sound preparatory work minimizes the number of flaws that show up later--when they are much more difficult and costly to correct. In leading up to the introduction of the VAT, taxes on capital goods should be phased out in order to minimize the need for complicated transitional provisions.

## 2. Which department should administer the VAT?

One of the most important preliminary decisions that has to be made if a VAT is to be introduced is which branch of the tax administration should be responsible for running the tax. In most OECD countries the administration of the taxes levied by the central government is divided between two branches: (1) the income tax department, which assesses and collects the personal income tax (including the pay-as-you-earn scheme), the corporation tax, and, usually, various income-based social security levies; and (2) the customs and excise department, which computes and collects the import duties as well as the excises on drinking, smoking, and driving. It is understood that most tax administrations in Central and Eastern European countries are similarly organized.

As the income tax department and the customs and excise department in these countries become increasingly engaged in administering market-based taxes, it will become readily apparent that there are fundamental differences in administrative techniques and approaches between these two groups of taxes. The compliance with and enforcement of the income taxes relies nearly exclusively on accounts: integrated financial statements of the activities of a business. Customs and excise duties are enforced largely by means of physical control by personnel acting as policemen, appraisers, and chemists. Income tax staff is more likely to comprise accountants and auditors, as well as lawyers.

This dichotomy of tax administrations clearly indicates why the VAT should be closely integrated with the business income tax. Unlike a customs official, who keeps a close watch on and checks goods and services that enter the country or leave bonded warehouses and who, therefore, may be described as a policeman, a VAT inspector may more appropriately be compared to an accountant or an auditor (a well-designed VAT entails very little legal work), who is at home with balance sheets and profit and loss statements. To ascertain taxable turnover and verify compliance with the law, VAT administrators examine books of account and other documentary evidence. They are concerned with financial flows and transactions, with accounts payable and receivable, and with cash and bank statements, but not with physical properties and quantities. A VAT auditor is an expert in analyzing the flow of funds and detecting the underreporting of sales, but he is not acquainted with the characteristics of products or the technicalities of production processes and warehouses. In terms of ensuring compliance, therefore, a VAT is similar to a business income tax, under which the proper computation of turnover is also the key to the examination of a taxpayer's return.

In 18 of the 21 OECD countries with a VAT, the same department administers both the income tax and the VAT. In other words, their administration is integrated at the central level. In 12 of these 18 countries, the same tax inspector deals with both taxes. In the other six countries, a separate tax inspector deals with VAT matters, presumably because of its distinct legal aspects. Where the same inspector deals with both taxes, joint audits are the rule. The argument is that checking the turnover figures in the profit and loss account as part of an income tax audit may provide a useful cross-check on the VAT liability. Conversely, checking VAT invoices may yield inconsistencies that suggest that the business is under-declaring taxable profits or not complying with payroll taxes.

Only three countries have few or no administrative links between the income tax and the VAT. The United Kingdom goes further than any other country in keeping the VAT separate from the income tax. In fact, Customs and Excise does not systematically inform Inland Revenue when it intends to carry out a field audit, though in some instances the results are communicated to the other department at the central level. As a result of

proposals made in the Keith Report, however, the United Kingdom has extended cooperation from the central to the local level. Belgium and Luxembourg are considering moves toward further integrating the two taxes. It is argued that a comparison of both types of return and a comprehensive joint audit provide the tax inspector with a better overall view of the taxpayer's business. In short, experience suggests that the income taxes and the VAT should be administered by the same department.

3. Who should be taxed, on what, where, and when?

The preparation of precise, complete, and unambiguous legislation is essential if a VAT is to be effectively implemented. Under any tax, but particularly a tax that is based on voluntary compliance, clear definitions are required of who should be taxed, on what, where, when, and to what extent. In other words, the terms "taxable person", "taxable activity", "taxable value", "place and time of supply", and various other terms should be minutely prescribed. The most important points are outlined below.

A taxable person should be defined as any person, natural or juridical (including public sector bodies), who conducts a taxable activity. A taxable activity should mean any activity, carried on continuously or regularly, that involves the supply of goods and services for a consideration (price) to another person. This activity may be conducted in the form of a business, profession, or association. Thus, employment, hobbies, and private activities would be excluded. A profit motive should not be required. Nonprofit organizations could also be taxable persons, unless specifically exempted. The importation of goods should be a separate taxable event, which would ensure that individuals would also be subject to a VAT when importing taxable goods. Moreover, the VAT at the border could then be levied as if it were an import duty.

A taxable supply means the sale, lease, delivery, or transfer, in any form, of the ownership of goods or the rendering of services. Special rules are necessary to ensure that taxable supplies include the transfer of goods pursuant to a hire-purchase contract or a finance lease (operational leases would be taxed as services rendered for the amount of the rent), or goods produced to order, goods transferred in satisfaction of the payment of a debt, self-produced goods and services (especially relevant to ensure neutrality vis-à-vis exempt sectors), supplies for private use, goods transferred at auction, and other situations, such as goods held at the cessation of registration. Goods held in consignment should not be taxed (ownership is not transferred), and most countries zero rate the sale of a business as a going concern.

Generally, the actual sale price, usually referred to as the consideration, should be taken as the taxable value. Although some arm's length provisions are desirable (for barter, donations, self-supplies), usually the mechanism of the VAT would ensure that any under- or overpayment

of tax is corrected in the next stage of the production-distribution process, because the offsetting tax credit is correspondingly smaller or greater. To ensure proper coordination with other taxes on goods and services, the taxable value for supplies within the country should be the sale price, including any excises. At the import stage, however, the VAT should be levied on the c.i.f. value of goods plus, in that order, import and excise duties. Thus, the protective (and revenue) function of the import duty would be given priority, followed by the revenue and resource allocation function of the excises and, last, by the revenue role of the VAT.

The place of supply of goods would normally be the place where the goods are located or are made available. This establishes whether or not the supply occurs within the country and, hence, is a taxable supply. Border tax adjustments can then be made if a good is exported or imported. However, these adjustments cannot deal effectively with services whose location of supply or purchase is difficult to determine. Distortions will arise if the tax liability is determined by the country in which the service is supplied. But if the supplying firm's country is the taxing locus, it will be difficult to tax purchases by final consumers. The EC's Sixth Directive provides a workable solution by taxing services rendered mainly to consumers at the place of purchase, but services rendered by banks, insurance companies, professional firms, advertising agencies, and similar enterprises, which are rendered mainly to business firms, are taxed at the place where the services are received. In effect, then, these services are zero rated in the country of supply, if exported.

Since the invoice is an important part of the VAT process, one should be issued whenever a supply is made to another taxable person. Invoices should be issued within, say, two weeks of the date on which a taxable supply occurs. The VAT liability would then accrue either when the invoice is issued or when payment is received by the vendor, whichever is earlier. This rule ensures that progress payments are taxed when received. If an invoice does not have to be issued (e.g., self-supplies), the VAT should accrue when the goods are made available. Special rules are needed for tokens, coupons, vouchers, and services of travel agents.

The time of supply also establishes the time at which the credit for tax is available to the purchaser if he uses the goods for taxable activities. Apportionment rules are required if taxable persons supply both taxable and exempt goods. Usually, presumptive rules are provided if the permissible tax credit cannot be attributed directly to the taxable supplies. The most common rule is to divide the tax on purchases into deductible and nondeductible amounts in the same proportion as taxable and exempt supplies bear to total turnover (including the value of zero-rated supplies, but excluding the value of capital goods). Exceptionally, some indirect proxy, such as machine time or floor area, is used. Adjustment of the input tax credit is also necessary if capital goods are used for

business as well as private purposes, or if the nature of the end use changes.

Similar corrections are called for if consumer goods are purchased "through the business" for the benefit of the trader, his employees, or shareholders. Such goods would include all kinds of fringe benefits (lodging, sporting and recreational facilities, the provision of food, drink, and tobacco below cost), entertainment items, gifts, and the purchase, hire, lease, or operation of passenger cars. Such supplies can be taxed either at market value or at cost. Most countries adopt cost as the value of supply because this is equivalent to simply denying the deduction for input tax. Some countries do not tax services supplied for private use, possibly because such supplies are indistinguishable in practice from nontaxable do-it-yourself activities.

4. How should a VAT be operated? 1/

Sound operational methods and procedures are the key to the successful administration of a VAT. These methods and procedures revolve around taxpayer registration, the filing and processing of returns and payments, the handling of delinquent accounts, taxpayer audits, and the imposition of penalties for noncompliance. To begin with, two elements are crucial for success: (1) a simple, decentralized electronic data processing system; and (2) an effective taxpayer assistance program to encourage voluntary compliance.

While a broad base safeguards the structural integrity of a VAT, coverage of taxpayers must be extensive if the VAT is to be administered successfully. Becoming registered should be unequivocally the taxpayer's responsibility (provided that his annual turnover exceeds the amount of the small-business exemption), but the VAT office should promote timely registration through appropriate publicity and canvassing. If in doubt, potential taxpayers should register; optional registration, if provided, should not be discouraged. Only a registered taxpayer should be allowed to issue invoices that show the VAT. Brief educational visits at the time of registration are desirable. A unique and reliable taxpayer identification number (TIN) is essential.

Since the accounting systems used in Central and Eastern European countries have, so far, been different from those applied in market economies, it is essential that bookkeeping requirements for tax purposes be clearly formulated from the start, and, because they impose a cost on taxpayers, they should be limited to what is absolutely necessary. Since large businesses are able to draw on professional expertise, the requirements should address mainly small and medium-size businesses, which should be obliged to keep a sales book and a purchases book, as well as a cash and bank book. Cash receipts should be entered daily and a balance sheet and a

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1/ This section draws on Casanegra de Jantscher and Silvani (1990).

profit and loss statement (single-entry bookkeeping suffices) should be drawn up annually.

The periodic return (monthly or, say, quarterly) should be as simple as possible. The return should be used only for processing information on the total amount of the VAT on sales (differentiated by rate), the total amount of tax credits, and the balance that is payable or refundable. Figures on sales might also be requested, but apart from changes in the taxpayer status and address, other data are not needed. Attachments to the return should not be required. Registered taxpayers who owe no tax in a particular period should still be obliged to file a return. From the beginning, the tax office should mail preprinted returns to all registered taxpayers.

Like electric and telephone companies, the VAT office cannot permit delays in the payment of tax and therefore needs to put in place an efficient and effective system for dealing with nonfilers and delinquent accounts. The system should provide systematic information on a monthly basis for timely action. If, for whatever reason, a return has not been filed or a payment has not been made, an assessment notice, including a penalty, should be issued automatically. If possible, payments should be processed through banks used to handling large numbers of transactions. The timely processing of refunds is important, because taxpayers should not have to wait for money they themselves have already paid to suppliers.

A successful VAT depends on effective auditing, which should be selective and comprehensive. Proper guidelines for auditing, that is, an audit selection program, based on among other criteria gross profit margins and type of economic activity, are essential. Although limited selective audits are often sufficient to check refund claims, basically, the underreporting of sales can be uncovered only through comprehensive, income tax-type audits. They should focus on small and medium-size businesses rather than on large companies, which are less likely to tamper with their VAT obligations.

Finally, swift and automatic (administrative) penalties are essential, differentiated by type of transgression: failure to register, to file a return, or to pay the tax. (Separate provisions should be drawn up for offenses regarded as criminal.) Penalties should be fair and reasonable. After all, the VAT relies on voluntary compliance; continuing default, because the penalty is confiscatory, cannot be the goal. Objections and appeals should be handled in a timely manner.

5. Is a VAT costly to collect and comply with?

The administrative litmus test of a "good" tax is how easy it is to collect and comply with. There is little firm information on this. In selected OECD countries, administrative costs as a percentage of VAT revenue

range from 0.35 percent in Sweden to 1.09 percent in Belgium. <sup>1/</sup> Measuring administrative costs in this way is misleading, of course, because a simple change in the rate would affect the apparent efficiency of the VAT administration even though there would be little or no change in absolute costs. A better yardstick would be to measure administrative costs per registered trader or per tax office staff member. Although figures are difficult to compare properly, they clearly show that the cost of administering the broadly based, single rate New Zealand VAT is only a fraction of the cost of administering the U.K. VAT, which zero rates 40 percent of the potential tax base and has complicated schemes for real estate and small traders.

Obviously, compliance costs are also a function of the structural complexity of the VAT. Various studies indicate that such costs vary significantly by firm size, with small firms bearing relatively high burdens. In fact, a U.K. study showed that the smallest firms' compliance costs, in proportion to sales, were more than thirty times those of the largest. For the business sector, not for the economy as a whole, the compliance costs should be lowered by the benefits accruing from the improvement in cash flows and management (accounting) techniques, particularly for small traders, that accompany the introduction of the VAT.

Although the data on administrative and compliance costs of the VAT must be treated with caution, it is clear that a VAT can be collected at significantly lower average cost than can income taxes for a similar amount of revenue. Data on compliance costs are even more sketchy, but a simple rule of thumb (the ratio of VAT lawyers to income tax lawyers) indicates that compliance costs of the VAT are far lower than those of the income taxes. In terms of administration and compliance, therefore, the VAT emerges rather well from a comparison with the income tax.

#### VI. Basic Requirements for a "Good" VAT

In this paper, the discussion of an appropriate VAT for Central and Eastern European countries has proceeded from the widely agreed premise that the tax should be used almost exclusively to generate revenue for the government budget in as neutral and administratively feasible a manner as possible. While the income tax can be employed to achieve distributional objectives and the excises and import duties to attain allocative goals, the focus of the VAT should be on revenue. (Of course, its proceeds might well be used to finance educational, health, and employment programs aimed at the poor).

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<sup>1/</sup> See OECD (1988), p. 204, as well as the sources provided in Cossen (1987) for the information provided below. Also, see Oldman and Woods (1983).

In summary, the requirements for a properly designed and operated VAT are the following:

(1) The VAT should be productive of revenue and responsive to changes in revenue needs. This requires that (a) the tax base be broad, covering as many goods and services as possible; and (b) the point of impact of the tax be as close to the consumer as possible so as to capture the largest value for tax of any single taxable item.

(2) Under the VAT, unintended distortions of producer choices, with respect to the form and the methods by which business is conducted, and of consumer choices for one good over another should be minimized. This means that (a) the anticascading device of the VAT, that is, the tax credit method, should be as comprehensive as possible, applying to all producer goods: raw materials, intermediate goods, and capital goods; (b) refunds should be paid quickly; and (c) tax-to-consumer price ratios should be as uniform as possible by situating the final impact of the tax as close to the consumer as possible.

(3) The VAT should permit the unequivocal application of the destination principle. In other words, commodities should be taxed in the country where they are consumed (not the country where they are produced), as required under the provisions of the GATT. This means that (a) the tax on imported goods should be the same as the tax on domestically produced goods; and (b) exports should leave the country completely free of tax.

(4) The VAT should be simple and easy to understand. Thus (a) the value for tax should be based on the actual selling price of goods and services rather than on presumptive or deemed selling prices; (b) exemptions of goods and services should be limited to those essential for social reasons or to avoid administrative complexity; (c) the rate of tax should be uniform or as little differentiated as possible; and (d) the zero rate should be confined to exports.

(5) Costs of collecting and enforcing the VAT should be kept low. This requires that (a) the tax be fully administered on a self-assessment basis; (b) small shopkeepers, craftsmen, and small service establishments be exempted; (c) part of the tax be collected at the import stage; and (d) tax invoices play a central role in enforcing the tax.

(6) The VAT should be easy to comply with and should interfere as little as possible with the free functioning of business and trade. This objective implies that (a) the tax should be attuned as closely as possible to actual business transactions and accounting methods; (b) taxable firms should be obliged always to charge tax regardless of whether a purchaser is a consumer, another business, or a government entity; (c) the time when tax becomes due and payable should be clear and precise; and (d) the tax should be verified primarily through checks upon accounting records rather than through physical types of control.

In conclusion, it should be emphasized that in Western countries tax policy derives from the assumption that the market achieves an optimal allocation of resources. Efficiency in resource allocation and, by extension, the neutrality advantages of the VAT cannot be attained if prices continue to be controlled by the government and enterprises continue to be subject to undue regulation and direction from the center. If a VAT is not to resemble the kind of bookkeeping exercise of the old turnover taxes, then its introduction should be preceded by a substantial degree of price liberalization and enterprise autonomy. Finally, a VAT is a "democratic tax" in the sense that, in the main, taxpayers have to comply voluntarily with the obligations imposed on them. Also, they have the right to disagree with the tax liability as ascertained by the tax office. This requires carefully crafted procedures and sustained efforts to elicit taxpayer cooperation.

## VATs and Other Sales Taxes in OECD Member Countries, 1991

Type of Tax and Country	Year of Introduction	Revenue Contribution <sup>a</sup>		Rate Structure (%) <sup>b</sup>		
		Percent of Total Tax Revenue	Percent of GDP	----- Lower	Standard	----- Higher
<u>Value-Added Tax (21)</u>		<u>18.6</u>	<u>7.5</u>		<u>16.8</u>	
European Community (12)		(18.1)	(7.3)		(17.3)	
Denmark	1967	19.4	10.1	-- <sup>c</sup>	22	--
France	1968	19.7	8.7	5.5 and 7	18.6	22 <sup>d</sup>
Germany	1968	15.6	5.8	7	14	--
Netherlands	1969	16.5	8.0	6	18.5	--
Luxembourg	1970	14.2	6.1	3 and 6	12	--
Belgium	1971	16.2	7.3	6 and 17 <sup>c</sup>	19	25 and 33
Ireland	1972	20.7	8.6	0 and 10	23	--
Italy	1973	15.2	5.6	4 and 9	19	38
United Kingdom	1973	16.5	6.1	0	15	--
Spain	1986	17.1	5.6	6	12	33
Portugal	1986	20.4	7.0	0 and 8	17	30
Greece	1987	25.3	9.1	3 and 6	18	36
Other Countries (9)		(19.8)	(7.8)		(16.1)	
Sweden	1969	13.3	7.3	-- <sup>c</sup>	25	--
Norway	1970	20.2	9.5	-- <sup>e</sup>	20	--
Austria	1973	20.6	8.6	10	20	32 <sup>f</sup>
Finland	1976	23.9	9.1	--	20.48	--
Turkey <sup>g</sup>	1985	22.9	5.2	3 and 8	12	15
New Zealand	1986	17.9	6.8	--	12.5	--
Iceland	1989	...	...	14	24.5	--
Japan	1989	...	...	--	3	--
Canada	1991	...	...	0	7	--
<u>Retail Sales Tax (3)</u>		<u>8.4</u>	<u>2.7</u>		<u>7.0</u>	
United States (States)	1932-1969	7.5	2.2	--	4.25-8.25 <sup>h</sup>	--
Switzerland	1941	9.8	3.2	--	6.2 <sup>i</sup>	--
Canada (Provinces)	1948-1967	8.0	2.7	--	5-12	--

VATs and Other Sales Taxes in OECD Member Countries, 1991 (continued)

Type of Tax and Country	Year of Introduction	Revenue Contribution <sup>a</sup>		Rate Structure (%) <sup>b</sup>		
		Percent of Total Tax Revenue	Percent of GDP	----- Lower	Standard	----- Higher
Other Sales Taxes (1)		9.1	2.8		20	
Australia <sup>j</sup>	1930	9.1	2.8	10	20	30

Sources: Rates: Country Legislation. Revenue figures: Organization for Economic Co-operation and Development, Revenue Statistics of OECD Member Countries: 1965-1989 (Paris: OECD, 1990), Tables 28, 29.

a. Fiscal years 1988. Averages are unweighted.

b. Expressed as a percentage of the tax-exclusive value of taxable sales, which is the practice in most countries. Finland has a tax-inclusive rate. The relationship between the two rates is expressed by:

$$t_e = t_i \frac{1}{1 - t_i}, \text{ where } t_e \text{ is the tax-exclusive rate and } t_i \text{ the tax-inclusive rate. Averages are unweighted.}$$

c. A zero rate applies to newspapers.

d. The French Government intends to abolish the higher rate.

e. A zero rate applies to books, newspapers, and certain periodicals, as well as to electricity supplied to households in northern Norway.

f. In Austria the higher rate applies only to passenger cars, motor bikes, luxury boats, and airplanes. The Government intends to abolish the higher rate in 1991 and to reduce the other rates to 18 percent and 8 percent, respectively.

g. Instead of being permitted to take the credit for tax paid on capital goods immediately in Turkey, taxpayers are required to spread the credit over a full year.

h. Inclusive of RSTs levied by county and city governments in the US.

i. A 9.3 percent rate applies to sales by wholesalers to small retailers that are not registered for sales tax purposes. Furthermore, Switzerland taxes construction at an effective rate of 4.65 percent.

j. The Australian sales tax is levied at the wholesale level.

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