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LESSONS FROM VALUE-ADDED TAXATION FOR DEVELOPING COUNTRIES

By

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February 1987

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Abstract

The adoption of value-added taxation has spread rapidly among developing countries. This paper summarizes the lessons learned from the papers presented and the discussions at the conference on this subject, which was organized by the World Bank. Most countries that have adopted the VAT have chosen a consumption-type of VAT imposed on the destination principle and utilizing the tax-credit method of collection. Specific issues on which some consensus has been attained with respect to the VAT in developing countries are discussed. These come under the heading of revenue productivity, economic efficiency effects and administrative aspects. Similarly, a list of unexplored or still debatable issues are reported. The paper concludes with impressions on what might be the shape of the suitable VAT for a developing countries and why the VAT has been adopted so widely.
Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>II. Consensus Issues</td>
<td>4</td>
</tr>
<tr>
<td>A. Basic Choices</td>
<td>4</td>
</tr>
<tr>
<td>B. Specific Consensus Issues</td>
<td>6</td>
</tr>
<tr>
<td>1. Revenue Productivity</td>
<td>7</td>
</tr>
<tr>
<td>a. The VAT is Not a Low-Rate Tax</td>
<td>8</td>
</tr>
<tr>
<td>b. Taxation of Services</td>
<td>9</td>
</tr>
<tr>
<td>2. Economic Efficiency Issues</td>
<td>10</td>
</tr>
<tr>
<td>a. The VAT and Inflation</td>
<td>10</td>
</tr>
<tr>
<td>b. The Balance of Payments</td>
<td>11</td>
</tr>
<tr>
<td>c. Financial Development</td>
<td>12</td>
</tr>
<tr>
<td>d. Neutrality Issues in the Consumption VAT</td>
<td>14</td>
</tr>
<tr>
<td>e. The Consumption Type vs. the Income Type VAT</td>
<td>14</td>
</tr>
<tr>
<td>f. Comprehensive vs. Pre-Retail VAT</td>
<td>15</td>
</tr>
<tr>
<td>g. The VAT and Regional and Industrial Incentives</td>
<td>16</td>
</tr>
<tr>
<td>h. Housing Services</td>
<td>16</td>
</tr>
<tr>
<td>3. Administrative Issues</td>
<td>17</td>
</tr>
<tr>
<td>a. The VAT and Tax Evasion</td>
<td>17</td>
</tr>
<tr>
<td>b. Rate Differentiation, Tax Administration and Tax Compliance</td>
<td>18</td>
</tr>
<tr>
<td>c. Zero-rating vs. Exemption</td>
<td>19</td>
</tr>
<tr>
<td>d. Lack of Fully Satisfactory Methods for Excluding</td>
<td>20</td>
</tr>
<tr>
<td>Small Businesses and Farmers</td>
<td></td>
</tr>
<tr>
<td>e. The Destination Principle: Border Tax</td>
<td>21</td>
</tr>
<tr>
<td>Adjustments, and the Income Basis of VAT</td>
<td></td>
</tr>
<tr>
<td>f. Computerization of the VAT</td>
<td>22</td>
</tr>
<tr>
<td>g. Implementing Issues</td>
<td>22</td>
</tr>
<tr>
<td>III. Other Issues, Some Largely Unexplored</td>
<td>24</td>
</tr>
<tr>
<td>A. Economic Efficiency Issues</td>
<td>24</td>
</tr>
<tr>
<td>1. The VAT as a Counter-Cyclical Tool</td>
<td>24</td>
</tr>
<tr>
<td>2. Application of Optimal Tax Theory in VAT Issues</td>
<td>25</td>
</tr>
<tr>
<td>3. Choice in Technique of Farming, under the VAT</td>
<td>25</td>
</tr>
<tr>
<td>4. Prospects for the Income Type of VAT</td>
<td>26</td>
</tr>
<tr>
<td>B. Administrative Issues</td>
<td>27</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----</td>
</tr>
<tr>
<td>1. The Future of the Subtraction Method</td>
<td>27</td>
</tr>
<tr>
<td>2. Refund Systems</td>
<td>28</td>
</tr>
<tr>
<td>3. Destination Principle and LDCs: Can Border Controls Be Dispensed With?</td>
<td>29</td>
</tr>
<tr>
<td>4. Cross-Checking (Matching) of Invoices, through Computerization</td>
<td>30</td>
</tr>
<tr>
<td>5. Excises versus Multiple Rates for the VAT: Optimum Number of Multiple Rates</td>
<td>31</td>
</tr>
<tr>
<td>6. Inclusion of Services in the VAT Base</td>
<td>32</td>
</tr>
<tr>
<td>7. Housing</td>
<td>33</td>
</tr>
<tr>
<td>8. Compliance Costs</td>
<td>34</td>
</tr>
<tr>
<td>9. Some Untreated VAT Issues</td>
<td>35</td>
</tr>
<tr>
<td>a. Transitional Problems</td>
<td>35</td>
</tr>
<tr>
<td>b. Used Goods</td>
<td>36</td>
</tr>
<tr>
<td>c. Government Services</td>
<td>36</td>
</tr>
<tr>
<td>d. Not-for-Profit Activities</td>
<td>37</td>
</tr>
<tr>
<td>e. Tax-Exclusive, Tax-Inclusive Rates</td>
<td>37</td>
</tr>
<tr>
<td>C. Income Distribution Issues</td>
<td>37</td>
</tr>
<tr>
<td>1. Difficulties in Ascertaining Income Distribution of VAT Burden</td>
<td>37</td>
</tr>
<tr>
<td>2. Techniques of Reducing the VAT Burden on Low-Income Consumers</td>
<td>38</td>
</tr>
<tr>
<td>(a) Zero-Rating vs. Exemption</td>
<td>38</td>
</tr>
<tr>
<td>(b) Lower Tax Rates on Necessities</td>
<td>38</td>
</tr>
<tr>
<td>(c) No Tax Relief; Pro-Poor Government Services or Payments</td>
<td>39</td>
</tr>
<tr>
<td>3. Economic Efficiency in Exempting Necessities</td>
<td>39</td>
</tr>
</tbody>
</table>

IV. Summary: Evolving Towards the Suitable VAT | 40 |

A. Why the VAT? | 40 |
B. What Kind of VAT and at What Stage | 43 |

Main References | 48 |
Bibliography | 49 |
February 9, 1987

LESSONS FROM VALUE-ADDED TAXATION FOR DEVELOPING COUNTRIES

Malcolm Gillis
Carl S. Shoup
Gerardo P. Sicat

I. Introduction

Few fiscal innovations have spread worldwide as rapidly as the value-added tax since 1950. In that year, no country utilized the tax, although one form of VAT had been proposed for subnational governments in Japan, but was never placed in operation. By October 1986, nearly sixty nations used one or another form of VAT, 40 of which are classed as developing countries (LDCs) in the 1986 World Development Report of the World Bank. China has a VAT of very limited scope, applicable to only a few industries. In 1986 alone, New Zealand joined the ranks of VAT nations, along with Niger, Portugal, Spain, and Taiwan, while India adopted a VAT of restricted scope. Greece has introduced the VAT effective January 1, 1987. In several other countries,

Note:

We are grateful to the participants to the Conference on Value-Added Taxation in Developing Countries, including World Bank and IMF economists who participated in the sessions as discussants and chairmen. The list is as long as that of the authors who prepared papers for the meeting. Among those who participated mainly as discussants, we would like to thank the following for their contribution: Richard Bird, Richard Goode, Stephen Lewis, Richard Musgrave and Oliver Oldman. In revising this paper we received valuable suggestions from, among others, John Due, Sijbren Cnossen, Wayne Thirsk, and, especially, Charles E. McLure, Jr. We also benefitted from the assistance of Indermit Gill. All references in this paper marked by an asterisk (*) refer to papers presented to Conference.
including Japan, the Philippines, Thailand, Pakistan, and Hungary, the VAT is under active consideration as a tax reform option.

Through 1986, there have been notable regional differences in patterns of utilization of VAT by governments.¹ Uruguay and Brazil, were the first developing nations to adopt a comprehensive form of VAT, that is, one that includes retailers. This was in the late 1960s. By 1986, the VAT had spread to a total of sixteen countries in Latin America and the Caribbean. In virtually all of the cases in this region, the tax is utilized in its comprehensive form. In Africa, only Niger and Madagascar employ the comprehensive form of VAT, but sixteen other countries have "VAT-like" taxes.² The VAT has been less common in Asia and least widespread in the Middle East. In Asia, only four nations have adopted the VAT, and only Korea and Taiwan utilize the comprehensive VAT. Among the Middle Eastern nations included in the list of developing countries in World Bank publications, only Israel has adopted the VAT.³

By 1986, about half the LDC countries employing the VAT had enacted the tax in its comprehensive form. Many of the remaining LDCs employing less comprehensive forms of VAT (primarily those confined to the manufacturing, importing and extractive sectors) may be expected eventually to follow the patterns of VAT utilization in France (1968) and Colombia (1983). In both cases, experience with pre-retail types of VAT over fifteen year periods was an important element in the decision to move to a comprehensive VAT. In any case, no national government that has operated either the comprehensive or the pre-retail forms of VAT has shifted to a single-stage tax, whether of the manufacturers', wholesale or retail variety.
Insofar as indirect tax reform in developing nations is concerned, there are lessons from the accumulation of experience with value-added taxation. Part of this experience derives from the way developed countries that have instituted the VAT have solved certain issues in its design and implementation. The increasing number of developing countries that have used the value-added tax have further enriched that cumulative stock of experience from which we now draw.

The opportunity to benefit from this experience was occasioned by a conference on value-added taxation for developing countries, sponsored by the World Bank, which enabled a group of experts and practitioners to deal with various issues on the subject. While the meeting was designed to distill the lessons of experience from some 60 countries that now utilize the VAT, the findings are likely to have significant lessons for two groups of developing countries: those not now utilizing the VAT but which may wish to consider a shift to this form of taxation, and those where one or another form of VAT is already in place, but where improvements in VAT operations are sought. Such improvements could be motivated by a desire to promote better resource allocation, income distribution, administration and compliance or growth of revenue. The VAT, then, is likely to be the wave of the future.

In summarizing the lessons, we present first what we believe to be consensus issues, those about which some substantial agreement (not necessarily unanimity) was evident among the assembled tax specialists, and secondly, a number of other VAT issues on which consensus was not attained,
usually because they needed further exploration. Not all issues in this group are equally important to all developing countries considering adoption or reform of VAT. All, however, merit serious attention in the design, implementation and administration of a VAT.

Finally, we provide a sketch of the type of VAT most likely to be consistent with the goals typically sought in imposition of that tax, given the types of common and uncommon constraints found in different developing countries.

II. Consensus Issues

A. Basic Choices

There is no single ideal, or prototypical VAT suitable for all settings. To some extent, a country's own objectives determine the choice of the type of VAT. But of the dozens of feasible types of VAT out of 576 nominally possible combinations of the tax identified by Shoup (\(^*\)), countries that have adopted the VAT have tended to settle upon the consumption type, imposed on the destination principle, employing the tax credit method of computation,\(^4\) and levying two or more rates in addition to a zero rate. This type of tax, widely known as the European Community (EC) type of VAT, evolved largely out of decades of unsatisfactory continental experience with multiple-stage turnover taxes. The EC type of VAT is comprehensive, but we shall use the term "EC type" to denote also non-comprehensive VATs that have the remaining EC-type characteristics.

The range of occurrence of comprehensive VATs in LDCs has been noted earlier. In virtually all developing countries, including those with pre-
retail taxes, the VAT has carried all the three other basic earmarks of the EC version. Among LDCs, only Argentina, Peru, and to some extent Turkey and Morocco have chosen the income type of VAT over the consumption type. All national level value-added taxes have been imposed upon the destination principle. Among LDCs, only Argentina, Peru, and to some extent Turkey and Morocco have chosen the income type of VAT over the consumption type. All national level value-added taxes have been imposed upon the destination principle. Among LDCs, the origin principle is used only for subnational taxes in Brazil. Finally, all national value-added taxes use the tax-credit method of computing the tax.

The broad similarities between the EC tax and those used throughout most of the developing world might suggest mere emulation of the EC as a motive for adoption of the tax in LDCs. And, to a certain extent, the generally successful revenue performance of the VAT in the EC may have predisposed LDC governments towards consideration of the VAT as a reform measure. However, Brazil introduced the EC form of VAT a year before it was introduced in any EC nation, and the VAT in Uruguay has been in operation as long as, or longer than, in any EC country except Denmark. The early, and largely successful, Brazilian and Uruguayan experiences with the VAT may help explain why the tax now virtually blankets South and Central America.

By and large, developing countries have selected the EC type of VAT (with appropriate modifications) not only because of the relative lack of experience with and information on alternative configurations of VAT, but because the EC type of tax has proven to be the most consonant with the fiscal
objectives typically sought in indirect tax reform and the most serviceable from the point of view of tax administration and compliance.

The consumption basis is indeed appropriate where policy seeks to be neutral in resource allocation. In a world where exchange rates do not adjust quickly or even fully to render irrelevant the effects of taxes on traded goods, and in countries where the trade-off between employment growth and current consumption opportunities is resolved in favor of the former, the destination principle is to be favored over the origin principle. The tax-credit method of computing and collecting VAT liability offers several advantages over the alternative subtraction and addition methods. The tax-credit method is simpler, offers some additional self-enforcing features for promoting tax compliance, and facilitates, where desired, full exclusion of basic foodstuffs as well as exports from the tax base, through the use of the zero-rating device. The tax credit method also provides some built-in protection for the integrity of the VAT base, since exemptions of pre-retail activities are generally not in the interests of seekers of favored treatment under the tax.

The EC type of tax (whether comprehensive or pre-retail) thus has been a sensible choice for the dozens of LDCs that have adopted the VAT. Too few countries have installed the income-type VAT to permit any useful generalizations on its efficacy in an LDC setting based on experience.

B. Specific Consensus Issues

The consensus issues may be grouped according to their relevance to four common considerations in tax design; revenues, economic effects, tax
administration, and income distribution. This classification is not by any means airtight: some issues included under the rubric of economic effects, for example, might be discussed just as well under the administration category.

1. Revenue Productivity

The VAT is often expected to produce, in short order, a significant amount of tax revenue relative to GDP. Indeed, the tax has developed enough of a worldwide reputation as a "money machine" that it is on this account not favored by those who seek a more restricted role for government in the economy./5

European experience with the VAT lends only limited credence to the view of the tax as a "money machine". The share of VAT in GDP grew in all European VAT countries save Norway in the decade after 1973. Yet, the shares of income and social security taxes grew faster. In developing nations, the VAT has tended to be something of a "money machine" in the sense that it has not been uncommon for the ratio of VAT revenues to GDP to exceed by at least 50 percent the indirect taxes replaced by the VAT with in three years after the latter was adopted./6 In all LDCs that adopted the VAT before 1981, except Bolivia, the VAT as a percentage of GDP was appreciably higher in 1983 than in the year after it was introduced. Therefore, while the bits and pieces of available evidence do not suggest that many countries should expect the ratio of VAT revenues to GDP to soon reach the 7 to 8 percent range found in Chile and Brazil in 1983, it seems clear that countries may implement the tax with minimal risk of revenue loss, and with some expectation of fairly strong revenue growth, at least in the early years.
a. The VAT is Not a Low-Rate Tax

Experience in both industrial and developing countries suggests that a VAT imposed at low rates may not be worth the administrative and compliance costs involved in the switch to the VAT. For all of its vaunted self-enforcing features, the VAT does not administer itself. Start-up costs in particular may be quite high in the first two to three years of application. The only well-documented evidence on this phenomenon pertains to Britain, where operating costs of the VAT (administrative plus compliance costs) in 1977, three years after enactment of the tax, were estimated at 11 percent of VAT revenues. By 1984-85, however, operating costs of the VAT had declined to little more than 6 percent of revenues, primarily because the 1984-85 basic rate was, at 15 percent, nearly twice as high as in 1977.\(^7\)

The most comprehensive governmental survey of VAT options for the United States also concluded that VAT is not a tax to impose at low rates, because of the additional investment in tax administration that would be required prior to and during the first few years of operation of the tax.\(^8\) No hard and fast rules of thumb are available as a guide to developing countries seeking the lowest feasible basic rate of VAT. In general, however, it is doubtful that an initial base rate much below 7 percent would be worthwhile for countries contemplating comprehensive value-added taxes. For countries preparing to implement a manufacturers-level VAT of the type used in Indonesia since 1985 and Colombia, from 1968 to 1975, a basic rate of at least 10 percent may be required to assure viability of the tax on revenue and administrative grounds.
b. Taxation of Services

Service sectors constitute an important share of economic activity in all countries, ranging from upwards of half of GDP in low-income LDCs to two-thirds or more in high-income industrial countries. Inclusion of services within the base of comprehensive value-added is clearly advisable on revenue grounds, or in order to allow lower rates of tax on commodities. Taxation of financial and housing services involves particular difficulties of a conceptual and administrative nature, and is discussed separately. The revenue argument for full inclusion of a wide range of other services is nevertheless strong. A wide variety of both consumer and business services can be included in the base of a comprehensive VAT of the EC type. Examples of the former include services rendered by beauty and barber shops, restaurants, hotels, theaters and the like. Virtually all non-financial services rendered to business firms can also be easily included in the base of a comprehensive VAT. All VAT paid by firms on their purchase of services is creditable against taxes due on their sales.

Inclusion of a wide range of non-financial services in the scope of a pre-retail type of VAT is generally inadvisable, since many important categories of these services are essentially retail in nature. Tax revenues from such expenditures are generally best pursued with separately administered excises on services until such time as the VAT can be extended to the retail level.
2. Economic Efficiency Issues

a. The VAT and Inflation

Policy-makers in both industrial and developing countries have on occasion been reluctant to replace other taxes with a VAT because of concern over the potential inflationary consequences of such a reform. This fear is essentially groundless, if by inflation we mean a continually rising price level. Introduction of a VAT has on occasion had some once-and-for-all impact on the price level, but has never caused a continuing upward spiral of prices.

This question is taken up in a study of the price movements of countries during the periods immediately before and immediately after the adoption of the VAT, by Tait (*). The countries included both developed and developing countries. Of the 35 countries studied, in 22 the introduction of a VAT did not lead to a major price increase. Although in 8 cases the introduction of a VAT was associated with a rise in the consumer price index, it was a once-for-all shift; there was no further price increase.

It is therefore possible to design a VAT which substitutes for an existing tax, at least an existing indirect tax, and which brings in the same yield without any effect on the price level. Even if there is a desired increased yield (as in the case of a rate increase) at most there can be a once and for all shift, but not a continuing or an accelerated increase of the price level. Other factors may lead to inflation, but not the VAT. Moreover, any potential inflationary impact of VAT introduction may be vitiated by the sensible use of appropriate transitional measures. These results were
confirmed by the experiences of other experts who have observed some VATs put in place in specific countries.

b. The Balance of Payments

Proponents of the VAT have long argued that substitution of the destination-principle version of the tax for a retail sales tax or an income tax would improve the balance of payments on current account. This was in fact one of the principal arguments offered in the U.S. and Sweden in the 1960s for reducing corporation income taxes and repealing a retail sales tax, respectively, and replacing the lost revenues with a VAT. The basis of the view that a VAT is more favorable to exports than the retail sales tax lies in the superiority of the VAT in fully freeing exports from tax, when exports are zero-rated. This advantage, however slight, was the primary reason why Sweden and Denmark opted for the EC type of VAT in the late 1970s. The view that the VAT is more favorable to exports than the corporate income tax was based primarily on the assumption that the latter tax was shifted forward in the form of higher prices, a view less common today than two decades ago. The corporation tax uses the origin principle, not exempting exports.

In any case, there was virtually no dissent among the conference participants with Tait's (**) two-part finding on the implications of adoption of a destination-principle VAT as a substitute for other taxes. Regarding replacement of other sales taxes by the VAT, Tait concludes that any beneficial effects for exports tend to be quite small. Adoption of such a VAT as a substitute for some portion of income tax revenues may, under some circumstances, yield positive export-promoting effects, but these are likely to be transitory.
It may be concluded then, that countries contemplating adoption of a VAT should not expect this fiscal measure to result in any significant or long-lasting beneficial effects on exports.

c. Financial Development

For countries considering adoption of a VAT confined to the manufacturing-exporting sectors, the potential effects of the tax on development of the financial sector can be largely ignored primarily because banks, insurance companies and other financial institutions do not generally fall within the scope of such taxes.

For countries considering enactment of a comprehensive VAT of the EC type, the implications of the tax for financial development must be examined with great care. Gillis (*) shows that the relatively long European experience with the VAT offer little in the way of helpful solutions to the issue. The common European expedient has been exemption of most financial services. While far from satisfactory, exemption in Europe has not likely had much of an impact upon the relatively mature financial structure of these countries.

For most, but not all LDCs, the situation is materially different. The often fragmented financial system is not generally well developed. Many types of financial institutions are embryonic. The insurance sector in particular tends to be small and vulnerable. And in many countries, even the lynchpin of any financial system, the commercial banking sector, has not yet begun to fulfill its resource-mobilization and intermediation potentials.
In a world where capital tends to be immobile internationally, inappropriate VAT treatment of the financial sector may not impede significantly the orderly development of the financial sector, whatever it may do to the efficiency of financial intermediation. However, there is growing evidence of a relatively high -- if imperfect -- degree of mobility of capital across national borders. In such a world, the VAT treatment of the financial sector may have significant implications for financial development. Exemption of financial services may be the most damaging option because of overtaxation caused by a break in the tax-credit chain. Full inclusion of such services in the VAT base would, therefore, be less prejudicial to orderly financial development. But any full taxation encounters some significant conceptual and administrative issues. The final option, zero-rating of financial services, is superior on all accounts save one: the thorny administrative-compliance problems that are involved. In addition, zero-rating is of course the most expensive option in terms of revenues that would be foregone.

Thus, Gillis concludes that there exists no fully satisfactory method for handling financial services under a comprehensive VAT. He outlines some expedient options for this sector, recommending a combination of zero-rating (for banking services), full taxation (of non-life insurance) and exemption (for life insurance services). There is less support for the feasibility of zero-rating in developing countries. But there was widespread agreement that the VAT treatment of financial services is likely to be a troublesome issue for some time to come.
d. Neutrality Issues in the Consumption VAT

Neutrality under a consumption-type VAT is generally interpreted as requiring uniform taxation of all current consumption expenditures. Neutrality issues are relevant for examination of structural features of value-added taxation. Full neutrality in the VAT treatment of consumption is recognized as impossible even when fervently desired. There is little disagreement, however, on the notion that adverse economic efficiency effects of the tax are, in real world settings, likely to be minimized when uniform tax rates are applied to the broadest possible base. In turn, this implies limited use of both exemptions and zero-rating. Where relief is sought for certain forms of consumption, e.g. food, and where administrative problems dictate special treatment for specific activities e.g. small firms, zero-rating rather than exemption emerged as the preferred option on economic grounds alone. Where departures from uniform rates are deemed essential for income distribution reasons, because other fiscal measures to compensate low-income families are unavailable, it was widely agreed that the fewer rates the better.

e. The Consumption Type vs. the Income Type VAT

As stated earlier, the consumption type of VAT has been adopted in almost all countries. Most experts compare the consumption type only with the income type, since a third type, that based on gross income is unanimously deemed quite unacceptable on economic grounds. As between the consumption and the income types of VAT, a very small minority favored consideration of the latter. On balance, economic considerations favor the consumption type, and it is easier to administer. Special reasons may favor the income-type
of VAT for a particular country's specific objectives, but it is likely that the most common form of value-added taxation will continue to be the consumption type.

f. Comprehensive vs. Pre-Retail VAT

There is no specific focus here on relative economic effects of a comprehensive VAT, i.e., extending through the retail level, vis-a-vis a pre-retail VAT. It is perhaps unthinkable that a pre-retail tax of any kind be implemented in situations where a retail levy could be effectively administered. Pre-retail types of VAT, such as those confined to the manufacturer-importer level, have some administrative/compliance advantages over pre-retail single stage stages and many economic advantages over multiple stage turnover taxes. But the economic superiority of a sales tax to the retail taxation is well established in the literature and in fiscal experience./14

The inherent distortions produced by pre-retail taxes has rendered them especially unsuitable for industrial countries. They survive today only in Australia, Canada, and Switzerland, and have begun to disappear from the tax structures of developing countries as well. Nevertheless, comprehensive value-added taxes are not an option for many low-income LDCs, particularly those in which retail trade is dominated by many small-scale firms with little formal record-keeping. In such cases, movement away from single-stage and turnover taxes and toward pre-retail types of VAT may offer some significant benefits until such time as retail taxation proves feasible. Shalizi and Squire (*) have identified 18 African countries in which taxes have "VAT-like"
features. They suggest that by building upon these existing tax instruments, these countries can improve the efficiency of domestic resource use and also provide the basis for comprehensive taxes on consumption in the long run. The Indonesian experience also suggests that a shift from ineffective forms of manufacturers taxes to a simple form of pre-retail VAT may yield substantial improvements in revenue, equity and administration, provided that the groundwork for such a reform is carefully planned and realistically implemented.

g. The VAT and Regional and Industrial Incentives

There is little support for the manipulation of the VAT structure to promote goals of regional or industrial development. This is often done through exemption for favored regions or industries, or through the use of lower rates. Utilization of the VAT for those purposes has been most common in Latin America. One of the central messages of the paper on Argentina by Schenone (*) is that the VAT is poorly suited as an instrument for providing regional and sectoral incentives. Avenues for evasion of the VAT are opened with the introduction of special schemes favoring some regions. The conclusion is that other fiscal instruments, including revenue-sharing agreements, are more effective policy tools for regional development objectives than reliance on the VAT.

h. Housing Services

The European experience with the VAT offers little in the way of helpful lessons to LDCs for handling the problem of the taxation of housing services. Failure to include housing services not only results in significant
shrinkage of the potential VAT base, but provides artificial incentives for households to consume housing relative to taxable goods and services. But full inclusion of the flow of all housing services is infeasible where owner-occupiers cannot be taxed; then taxation of rentals yields inequity and economic distortions.

In particular, there was some support for taxing housing services by separate levies outside the structure of the VAT. This subject is discussed further below under non-consensus issues.

3. Administrative Issues

a. The VAT and Tax Evasion

The EC type of VAT, with its tax-credit method of collection, has enjoyed a reputation as more effective against tax evasion than single-stage taxes such as the retail sales tax. This reputation is by and large deserved, but the evasion-control advantages of VAT are easily exaggerated. The VAT does not administer itself; the tax requires essentially the same type of audit activity and the same kinds and quantities of other administrative resources as needed under a single-stage tax, whatever the level.

The tax credit type of VAT, however, does have three anti-evasion features not present in a retail tax. These are (1) its self-policing attributes, (2) the possibilities for cross-check of invoices, and (3) the fact that the VAT involves collection of a major portion of revenues prior to the retail stage. These features are discussed in greatest detail by Sandford and Godwin (*), but also by Casanegra (*), Hutabarat and Lane (*). Shoup (*),
and Han (*). There is some broad agreement as to the administrative benefits of the self-policing feature, which arises from the fact that underpayment of VAT by a firm selling to another firm increases the VAT liability of the buyer. This advantage was viewed as significant however, only so long as evasion at the point of final sale is not endemic. The papers cited above also spurred considerable discussion of the advantages offered by the use of cross-checks under the VAT. This device has been most intensively employed in Korea where invoices received by buyers are routinely matched against those retained by sellers. It is applied on a much more limited scale in Indonesia. Some participants have expressed skepticism about the cost effectiveness of the type of cross-check done in Korea. However, it was generally agreed that the cross-check feature of the VAT is a valuable attribute, particularly when firms believe the tax administration has the capacity (if not the intention) to perform complete cross-checking operations. This is discussed again below, under the section, cross-checking through computerization.

There is also a dark side to the new administrative methods offered by the VAT. Several experts, particularly Sandford and Godwin (*), Kay and Davis (*), as well as a number of participants, have pointed out that the VAT also provides one opportunity for fraud not available in other forms of sales tax: fictitious claims for excessive credits and rebates, particularly through use of counterfeit invoices.

b. Rate Differentiation, Tax Administration and Tax Compliance

The number of rates for the VAT opens up the question of administrative complications. Indeed, the use of multiple rates can be
approached from several opposite perspectives. The desire for administrative simplicity calls for fewer rates. The need to provide differentiated tax treatment often items from considerations of equity. Sandford and Godwin (*), Perry (*), Aninat (*), and Casanegra (*) generated extensive discussion of the administrative/compliance implications of the use of multiple rates of VAT to enhance progressivity, or reduce regressivity. There is general recognition that departures from uniform rates of VAT do engender complications and costs for the tax administration and taxpayers alike. However, several participants were of the view that use of a limited number of differentiated rates involves relatively minor administrative problems. On the other hand, there were also a large number of participants who viewed differential rates as the bane of existence of VAT administrators, to be avoided whenever possible.

c. Zero-rating vs. Exemption

Zero-rating and exemption are competing methods of tax relief under a VAT. Shoup (*), Gillis (*), Sandford and Godwin (*), Casanegra (*), and others have focused on this matter. There is virtually unanimous agreement that on administrative grounds, exemption of entire firms is preferable to zero-rating, while for a particular commodity zero-rating may be easier (no tracing of inputs is needed). Zero-rating may on occasion call for tax refunds to the firm, and this may be troublesome in some countries. In any case, zero-rating is superior on economic and income distribution grounds.

The zero-rating option is best suited to those cases where it is desired to completely free a commodity or an activity from taxation (e.g., exports, foodstuffs consumed primarily by low-income families). The exemption
device cannot serve this purpose unless the exemption is carried all the way from the earliest stages of production to final sale. Indeed, exemption, if used with the credit method of computation, will result in higher, not lower, ratios of value-added tax to final sales, unless the exemption applies to final retail sales.

Each country must therefore strike a balance for itself, between these issues, in deciding between exemption and zero rating.

d. Lack of Fully Satisfactory Methods for Excluding Small Businesses and Farmers

Due (*) focused on this issue, but several others (Casanegra (*), Perry (*), and Sandford and Godwin (*)) also devoted a substantial share of attention to the problem. Options available to policy-makers for dealing with small business firms include exemption or the establishment of special tax regimes for them. Due notes that while exemption of small firms is the administratively expedient option, it is often not in the interests of the enterprises. This solution, however, does provide incentives for small firms to register for the tax. There was little disagreement with Due’s contention that the best of all the imperfect and arbitrary criteria for delineating between taxable and exempt firms was that of sales volume.

For farmers, Due suggests that the most workable, but by no means ideal, solution is that of exempting them from the registration requirement while zero-rating major farm inputs such as fertilizer and farm equipment. His preference for this method over the use of presumptive credits for
purchasers of agricultural products was echoed by Schenone (*) who objected to presumptive credits in Argentina on resource allocation, rather than administrative, grounds.

e. The Destination Principle:

Border Tax Adjustments, and the Income Basis of VAT

While an origin-based tax requires no border tax adjustments for products moving in international trade, other than valuation of imports, this attribute was not seen to represent any significant administrative advantage over taxes based on the destination principle where border tax adjustments are generally required, Shoup (*), Cnossen (*), Longo (*), and Poddar (*) provided substantial focus on the issue of border-tax adjustments. There was a strong consensus first that any administrative burdens that may be involved in border-tax adjustments under the destination principle were easily outweighed by other advantages of destination-based taxes. Further, Cnossen suggests that border tax controls are not inherent in the use of the destination principle (see Section B.3 below).

In general, professional opinion weighed heavily in favor of the destination principle for LDCs. Some experts tried to temper this view by noting that while the destination principle is most compatible with the consumption type VAT, these can be no presumption that the consumption basis rather than the income basis is most compatible with the goals of all countries. As stated elsewhere, however, the use of the income type VAT has not been adopted by most LDCs, if for no other reasons than those related to tax administration and compliance.
f. Computerization of the VAT

The VAT, of course, requires some degree of formal record keeping. This is at two levels -- the tax payer and the tax collector. Hutabarat and Lane (*) exclusively focused on issues related to tax computerization. Casanegra (*) and Han (*) also examined the relative merits of computerization versus manual systems for controlling VAT compliance. The Han paper exhibits considerable enthusiasm for computerization. The Casanegra paper, while recognizing the benefits of maintaining taxpayer registers in computer files, urges also the use of manual systems to control compliance by large taxpayers.

Hutabarat and Lane do not attempt to make a case for any particular degree of computerization of VAT administration. Rather, they delineate the technical problems involved in implementing a computer-based tax information system and provide valuable illustrations of the sequencing of necessary decisions and actions.

The principal non-technical lesson flowing from their paper and its extensive discussion by participants is that effective use of computerization in tax reform, including reform involving a VAT, is a matter of careful planning and above all careful timing.

g. Implementing Issues

How long does it take for a country to introduce a VAT once it has decided to adopt it? The short answer is longer than it seems at first instance. Hutabarat and Lane (*), Tait (*), Perry and Orozco de Triana (*),
Han (*), and Casanegra (*) identified the importance of careful attention to implementation issues prior to, during, and just after installation of a value-added tax.

One of the most significant conclusions from the discussions was the need for establishing a realistic lead-in time between the decision to adopt the VAT and its introduction. While Chile was able to reduce the lead-in time to a few months, there was general agreement that a lead-in time of no less than two years is essential, if the experiences of several countries (including Belgium, Italy, Ireland, and Greece, as well as Indonesia) are any indication.

Several recommendations are made for effective utilization of lead-in periods, as well as caveats on what is to be avoided in implementation of a VAT. Argentina, Korea, Colombia, Mexico and Indonesia all engaged in substantial campaigns for taxpayer education prior to installation of the tax. Preparation for computerization of the VAT began in Indonesia well before the final decision to adopt the tax. The lead-in period offers an opportunity to reform tax paying and tax collection procedures simultaneously with structural reform: filing requirements, fines and penalties, methods of taxpayer notification and of providing tax refunds and other procedures may in this way be made supportive of improved taxpayer compliance. Also, VAT implementation must not be jeopardized by overlooking such mundane yet vital needs as fashioning and publishing new tax returns and new manuals for tax officials.
Finally, the lead-in period can be employed to help reduce any economic dislocations (whether real or imaginary) that may be associated with the introduction of the tax. Tait (※), for example, provides a list of measures that governments may take to minimize the possibility of significant price level effects from introduction or alteration of the VAT.

III. Other Issues, Some Largely Unexplored

A. Economic Efficiency Issues

1. The VAT As a Counter-Cyclical Tool

A tax so all-encompassing and at such substantial a rate as the usual VAT might seem to be the instrument of choice, along with the income tax, to stimulate the economy in a depression and to check its upward pressure in a boom, by discretionary changes in the tax rate: down in a depression, up in a boom.

This issue received almost no attention. To be sure, counter-cycle variation in tax rates is not in high favor these days, ever since the simultaneous appearance of depression and inflation some years ago. Nevertheless, it deserve to be explored, in the VAT context.

The United Kingdom did use the VAT as a stabilization device once, when the standard rate was reduced from 10 per cent to 8 per cent. From the standpoint of compliance costs, it has been suggested that changing the rate periodically forces a very large number of traders to alter pricing policies, hence increasing compliance costs. This point, though important, could be overbalanced if the rate change were truly capable of stimulating the
economy. A greater danger, perhaps, is that consumers would engage in anticipatory buying, trying to act in advance of the rate change, buying less when a rate lowering was expected, thus sending the economy further down. In any event, the stabilization issue does seem to need further exploration, in the context of VAT. There may be other fiscal and economic policy instruments available to government for more effective countercyclical adjustment.

2. Application of Optimal Tax Theory in VAT Issues

In recent years much interest has been directed in public finance to the optimal tax theory of the Ramsey type, to maximize economic efficiency in the allocation of resources. This theory calls for differing tax rates on different commodities, the higher rates being imposed where elasticity is less (this is an oversimplification, but elaboration would carry us too far at this point).

Some attention was given to this issue. On the one hand, there was a school that stressed that the theory is inapplicable in the VAT context, because we do not know enough about differing elasticities. It seems unlikely that a great variety of tax rates, from one good to another, would be practicable, in view of the problem of description and enforcement. Whether the gain achieved in efficiency would be worth the added resources put into administration and compliance is the key issue. We are hardly at the beginning of knowledge on this point.

3. Choice in Technique of Farming, under the VAT

If farmers are exempt from the VAT, then, under the tax-credit system, the tax on agricultural output may actually be increased thereby,
since there will be no crediting of the tax paid on the farmers' inputs of fertilizer, farm machinery, and the like. An attempt to compensate for this by giving a standardized credit of some sort further down the line, to those who purchase from farmers, may eliminate the overtaxation. But this will leave intact the distorting influence on farmers' decisions on how much fertilizer, farm machinery, etc., to purchase because these decisions do not affect the amount of the down-stream credit. Because of the importance of the agricultural sector in most LDCs this is not a trivial question, Due (**) recommends exemption of major farm products, with zero-rating of major farm inputs; the latter would allow recoupment of the taxes paid on earlier inputs. In general, however, no consensus has emerged on just how to preserve the proper incentives for farmers to allocate their expenditures for inputs in the most efficient combinations and total amount.

4. **Prospects for the Income Type of VAT**

As already observed, nearly universal use of the consumption type VAT should not preclude further thought on this choice. Opinions have ranged from decided preference for the income type for developing countries, if that type were modified, to satisfaction with the present situation. The need to compute depreciation is an important consideration, among several others (McLure, 1987, and Treasury I).

One view is that in developing countries where the income tax is considered impracticable, for administrative and compliance reasons, a VAT should at least approximate the income type. Structurally, the income type calls for taxing income earned by exporting, and exemption of income
originating abroad but embodied in imports. But a contrary view has been expressed, which suggests that this could be disregarded, and the destination principle kept, if desired, although this would admittedly add complexities.

The issue of double taxation of savings that occurs under an income tax was not discussed in the meeting, although this is especially important for developing countries. Indeed, the issue requires further work, especially for the choice between consumption and income types of VAT for developing countries. It is well to re-emphasize that at present, support for the income type was not at all widespread, at least for a national-level VAT. The experience of Argentina with the income type should be followed closely.

B. Administrative Issues

1. The Future of the Subtraction Method

Virtually all comprehensive VATs now in use employ the tax-credit method for computing the amount of tax due: from a gross tax found by applying the VAT rate to the firm's sales, there are deducted the VAT taxes shown on the purchase invoices of that firm for the same period. This has been thought to have certain advantages over the simple subtraction method, whereby the firm subtracts, from its sales, the amounts it has spent for its inputs purchased from other firms. McLure, however, has examined a more sophisticated version of the subtraction method that accomplishes about all that the tax-credit method can do, except where the tax rates vary from stage to stage. This interesting option remains an issue for further study.16
2. Refund Systems

Under a zero-rating regime, used in most VAT countries chiefly for relieving exports of VAT tax paid at earlier domestic stages, the tax authority must pay a tax refund to the exporter if that exporter does not have sufficiently taxed domestic sales the gross tax on which would be reduced by application of the tax credit granted to exports. This occasional need for a refund mechanism poses an additional burden, especially where tax administration is not highly developed. The refund demand puts financial pressure on the government and invites corruption.

On the other hand, it can be argued that nothing will inspire more trust and confidence in the tax administering body than the willingness to provide a refund, promptly, where the law clearly specifies it. The government is seen as being willing to play fair. How to strike a balance in these two opposing views requires further analysis. In particular, it is not clear what is to take the place of the refund, if that is deemed unacceptable. Carry-over of tax credit to apply against domestic sales in future periods may put severe financial pressure on some firms, particularly exporters with insufficient domestic business to use all credits.

Failure to pay refunds probably encourages consolidation of exporting firms with domestic-market firms, so that export credits can be offset against taxable-sales credits.
3. Destination Principle and LDCs: Can Border Controls Be Dispensed With?

The destination principle, which taxes imports under a VAT, and exempts exports, has been thought to require border controls (to tax imports and to be sure that the tax-free exports actually leave the country). Recent analysis indicates that border controls will in fact not be needed, because of taxation of the first sale after import, and production and transportation records for exports. This may well prove true in industrialized countries with strong internal revenue controls.

But would this prove practicable in LDC's? This interesting question has not been dealt with specifically at length in the conference, but there was some relevant commentary. In discussion, Bird suggests that it is advisable to concentrate collection, as far as possible, at customs points, for goods in general.

In a country where the VAT is not comprehensive, but is limited to the manufacturing stage, or goes to the wholesale stage but no further, reliance on taxing the first sale after import would be inadequate, since a large proportion of imports may be by exempt retailers or wholesalers. For a comprehensive VAT, much will depend on how effectively the wholesale and retail trades are taxed.

These administrative issues are also germane for the choice between the destination and origin principles when the VAT is levied by a state or local government, or, more generally, by any government of a country within a
union without any intra-union border controls. Such a governmental unit can tax exports, of course, by treating them the same as all other transactions; but it cannot easily exempt imports, which will be caught, unless provision is made otherwise, at the first domestic sale. Correspondingly, zero-rating of exports will usually be difficult, since the requisite documents may not always be generated by the transaction, at least for a state or locality, while taxation of imports will ordinarily be assured, at the first domestic sale.

4. Cross-Checking (Matching) of Invoices, through Computerization

On any taxable sale from one firm to another firm, the seller's invoice will show the amount of gross VAT on that sale, and, under the tax-credit method, that amount is available as a tax credit to subtract from the buyer's gross tax on its sales. If the seller understates the tax on a copy of the invoice it uses for its own records and overstates the tax on the copy of the invoice given to the buyer, both parties benefit (illegally) by reducing VAT for both. If the two copies of the invoice are alike, a false statement of the tax can benefit one of the parties, but equally harms the other party. Hence a matching of the invoices - buyer's and seller's - on any particular sale is a technique for uncovering tax fraud. These invoices are of course part of the parties' information they hold ready to submit to the tax authorities to support the figures in their tax returns. Complete cross-checking on a particular sale consists, as Casanegra points out, of using the invoice given to the buyer to check the amount of sale entered in the seller's tax return. If the two invoices are matched and are seen to be alike this at least shows that falsified invoices are not being used to reduce the tax on the one except at the cost of increasing the tax on the other.
The task of matching the two invoices for any given sale is a large one indeed. As already noted elsewhere in the discussion on tax evasion, the description of the high degree of matching accomplished in the case of Korea stimulated considerable interest. In Indonesia cross-checking is still some distance away despite the extensive computer system the revenue authorities have installed there. The United Kingdom uses a selective cross-checking system, not a complete one. Questions have been raised as to the benefit obtained from extensive cross-checking compared with the cost. The cost of invoice matching in Korea is indeed high, but not necessarily uneconomical, according to Han (*).

5. Excises versus Multiple Rates for the VAT: Optimum Number of Multiple Rates

For one reason or another, it may be desired to tax certain goods at higher rates than at the standard VAT rate. At one extreme, the question becomes: shall all these higher rates be incorporated in the VAT, thus dispensing with excise taxes completely? Alternatively, shall all of the existing excises be continued? Or shall only excises on "luxury" (income elastic) products be incorporated in the VAT, leaving such sumptuary excises as those on alcohol and tobacco as separate taxes? This matter is part of the broader question, what is the optimal number, and levels, of rates under a VAT? This matter is part of the broader question, what is the optimal number, and levels, of rates under a VAT?
Opinion on these points is sharply divided. In one view, the extra administrative and compliance costs are not excessive compared with the gains, especially in equity, obtained by higher rates on luxury goods under the VAT. Another view opposes multiple rates in general, on administrative and efficiency grounds. The decision will largely depend on how important the country has considered the high rates of excises to be, and how strongly it emphasizes the vertical equity problem.

In any case, if the tax-credit method is used, the higher (or lower) rate can be effective only if levied at the retail stage, a point not always easy to understand.

6. Inclusion of Services in the VAT Base

Although there is no disagreement on the general principle of including services, along with goods, in the VAT base, particular instances may cause difficulties. Financial services is an example: some would either exempt that sector or zero-rate it, because of the difficulty of isolating and measuring the service element. Gillis (*) points out that developed country experience may not be applicable to an LDC, since the financial sector is far more concentrated in the latter, and many financial firms are government owned or closely regulated. Since LDC's with "deep" financial structures have done better than the other LDCs, taxation of this sector must be approached carefully. Zero-rating is probably the preferred choice at the present time, unless the tax refund problem proves too difficult. Another view is that it is possible to change part of a price of a taxable good into a charge for a
financial service. If such services are non-taxable, taxes on the good may be avoided in part by coupling a low price with high-priced financing.

As this example shows, it is difficult to generalize about the feasibility of taxing services, or the necessity for doing so, and further study is needed, sector by sector.

Kay and Davis (*) examine services in general, with special attention to eleven types of service, and conclude that services should be included in the VAT base, with particular provisions for some of the more difficult cases.

7. Housing

If consumption of housing is regarded as consumption of a flow of services from a capital good, housing offers another special case of services to be taxed or non-taxed under a VAT.

The difficulty of taxing housing under a VAT caused Conrad (*) to propose a radical departure from traditional approaches on this issue. The option preferred by Conrad is that of applying the VAT to the stock of housing values rather than the flow of housing services. He argues that this would fully tax the present value of the flow of consumption services from housing. In practice the VAT would be levied upon all sales of all real estate, with credits for VAT paid on real estate purchases handled in much the same way as on any other purchases by registered firms.

This proposal evoked several reactions in discussion. First, present methods for dealing with housing services in all VAT countries are in fact
serious, defective, on economic, administrative or equity grounds. Second, the Conrad proposal for a VAT on sales of real estate stocks is untried and in the view of some participants, not yet feasible of administration in most developing nations. Third, taxation of housing services presents quandaries that are not likely to be easily resolved in the near future, whether in developed or developing countries. For instance, there is the problem of how to treat housing already in existence when the tax is introduced: a valuation would be difficult, and waiting for the first sale would cause a lock-in effect. Another problem emphasized is that since the percentage of self-supplied (and hence presumably in fact non-taxable) housing increases as we move down the income scale, exemption of all housing would represent a regressive measure. Finally, the novel approach taken in the Conrad paper is sufficiently attractive on economic, revenue and equity grounds to merit serious exploration by scholars and tax officials alike.

8. Compliance Costs

A neglected topic in much tax literature is compliance costs: how much does it cost the taxpayer to comply with the tax law, quite aside from the tax itself? Sandford and Godwin (*) have helped fill this gap, for VAT, by a sample survey in the United Kingdom. They find that the compliance cost of the taxpayer, expressed as a percentage of the tax itself, is considerably higher than the administrative costs of the government in collecting the tax. The discussion has touched on the trade-off between administrative and compliance costs, the concept of negative net compliance costs (if the interest earned on tax collected but not yet paid over to the Treasury is considered a negative compliance cost) and the sampling problem.
In general, the papers on particular countries did not contain information on compliance costs, with the exception of that on Chile. In this largely unexplored field therefore awaits further fact-gathering before much progress can be made in analyzing it.

9. Some Untreated VAT Issues

Brief mention is here given to some additional VAT issues that were not taken up in the meeting. Five items that are probably important enough to justify considerable research effort are noted here, although the first three, at least, have been well discussed in other contexts.

Although they are listed under the heading of administrative problems, because that seems to be the chief element, they have economic efficiency aspects as well.

(a) Transitional Problems

The transition from a turnover tax to a VAT raises problems of equity and economic efficiency. An example is offered by plant and equipment. A firm buying such inputs under the turnover tax and selling the resultant products under a VAT will get no credit against the VAT for the turnover tax paid. Expectation that a VAT will soon be substituted for a turnover tax may induce a firm to postpone its capital equipment program. Some VAT allowance for turnover tax on capital goods purchased within a period before the tax is introduced may be considered.
Other somewhat similar situations may occur with respect to inventory build-ups, financial contracts, and imports in general.

(b) Used Goods

If a consumer re-sells a durable consumer good that he has been using, can any VAT ever be due? Perhaps the user has in some way improved the good; in that event he is not merely a consumer, and the value so added should be taxed, if administratively possible. Perhaps, with the passage of time, demand for the good has increased, and this is reflected in the price. Other equally difficult issues can be cited. The problem may not be important enough to bother about, but at present we cannot be sure of this.

(c) Government Services

If a government, say a state, sells something, such as use of a highway through toll charges, should those charges be subject to a VAT imposed by the national government? If that government is the same one that levies the VAT, is it then unnecessary to impose a VAT? Can the input taxes, if any, paid by the government, under its own VAT, be easily traced, and should they be creditable? What of government services that are supplied free of direct charge -- could a value somehow be imputed to them, and a tax collected on that value? For instance, New Zealand has recently succeeded in putting all government services under the VAT base. These, and collateral issues, need at least a preliminary examination.
(d) **Not for Profit Activities.**

Organizations that are philanthropic, and certain others that also purposely do not generate profits, buy inputs that may carry a VAT loading. Is a tax refund then in order? What if the organization engages in sales that are normally taxable under the VAT?

(e) **Tax-Exclusive, Tax-Inclusive Rates**

The necessarily indeterminate discussion accorded to the problem of choosing between these two types of tax rate needs to be systematically reviewed, with the pros and cons listed clearly, with the supportive reasoning. We may suppose that the decision on this score is being made without sufficient analysis of all the issues involved, even though some of them may be of minor importance compared to those treated in the preceding sections here.

C. **Income Distribution Issues**

1. **Difficulties in Ascertaining Impact of VAT on Income Distribution**

The difficulties demonstrated by McLure (*) in ascertaining how the burden of the VAT is distributed by income classes are great, but there is no question that a comprehensive VAT with no exemptions or zero-rating at all (save on exports) rests in part on the lowest-income consumers. Attention is therefore devoted to techniques of removing from the tax base certain consumption items that play a larger role in the budgets of the poor than for the rich, notably foodstuffs.
2. Techniques of Reducing the VAT Burden on Low-Income Consumers

(a) Zero-Rating vs. Exemption

Under zero-rating a zero rate of tax is applied to sales of a selected commodity or to all sales of a certain business firm. The firm is allowed to subtract the VATs shown on all its purchase invoices. If the net result is a negative tax, a cash payment must be made by the Treasury to the taxpayer (tax refund). Under simple exemption, as it is usually practiced, the sale of the good, or the sales of the firm, are exempted, but no attempt is made to allow for, or refund, the VAT amounts that have already been collected at earlier stages.

Clearly, the zero-rating technique is better for the low-income consumers (assuming that the benefits will be passed on to them in lower prices) than the exemption technique, but the advisability of making tax refunds has been seriously questioned (as already noted above).

(b) Lower Tax Rates on Necessities

In place of exemption or zero-rating, the commodity in question could be given a rate below the standard rate of the VAT. This issue of multiple rates, too, has been noted above. One problem here is that once this road is taken, more than one non-standard rate may be selected, in a zealous effort to refine the distribution of the VAT burden as much as possible. There is difference of opinion with respect to the number of non-standard rates that could reasonably be adopted.
(c) No Tax Relief; Pro-Poor Government Services or Payments

If no tax relief to the poor is granted under a VAT, the burden on them might be offset by using the extra VAT revenue coming from taxing necessities consumed by the poor to supply them with additional transfer payments or free government services. This solution, also, is far from receiving unanimous support, largely because of the greater difficulty, in LDCs, relative to high-income countries, of using transfer payments to alleviate poverty.

3. Economic Efficiency in Exempting Necessities

"Productive" consumption is that part of total consumption, a reduction in which will result in some reduction in output, owing to enfeeblement of the workers who had been consuming that part. A VAT will therefore force a reduction in total output if it induces low-income workers to cut back on consumption that is productive. A tax restricted to high-income consumers would not have this effect.

The tax might even force a reduction in "gainful" consumption, defined as that part of productive consumption, a reduction in which is accompanied, through enfeeblement, by an output reduction that is even greater than the reduction in consumption.

Accordingly, equity considerations are not the only reasons for granting exemption, or zero-rating, or low tax rates to at least some of the goods and services consumed by the poor.
IV. Summary: Evolving Towards the Suitable VAT

At the beginning, it was stated that the lessons for developing countries can be pertinent to those LDC countries seeking to reform their tax systems by adopting a VAT. These lessons may also be helpful for those that already have a form of VAT in place but wish to expand its base and improve its coverage. In this final section we deal with this possibility briefly, affording us the opportunity to summarize some salient aspects of the differences in country application. In providing some guide to these issues, we attempt to answer the question pointedly made during the meeting: why the VAT and not another tax? Secondly, we summarize the patterns of the VAT likely to be adopted, given the differences in starting points of most countries.

A. Why the VAT?

The value-added tax has become applied ever more widely because it avoids some of the negative features of other forms of taxation, particularly the turnover ("cascade") tax. This latter tax strikes the full sales value without any allowance for the same tax already levied at earlier stages in the production and distribution process. Thus, the value added at the manufacturing stage is taxed again at the wholesale stage and again at the retail stage. This feature of the turnover tax induces vertical integration of business enterprises: the manufacturer may absorb the wholesaler and the retailer (or vice-versa), to avoid cumulative tax. The VAT, in contrast, taxes each stage of value-added only once, at the stage where it is added. Another feature of the VAT compared with the turnover tax, is its neutrality insofar as production efficiency is concerned: it taxes productive inputs
equally and does not promote distortion of production choices. Moreover, the consumption type of VAT does not distort the choice between consuming now and consuming later, in favor of the former, as does the income tax. In this way the VAT does not penalize, as does the income tax, capital accumulation and economic growth. The larger is the base of the VAT with only a single rate and a minimum of exemptions -- the status of a near perfect VAT -- the more important will these superior attributes of the VAT be.

Two possible substitutes for the VAT, insofar as the taxation of consumption is concerned, are the retail sales tax and the expenditure tax. The latter is collected directly from the consumer, like the personal income tax. It has not been successfully implemented in developing countries, and has not been tried elsewhere. Experimentation with the expenditure tax in developing countries, in particular in Sri Lanka and India about three decades ago, ended in failure.

The retail sales tax is a single-stage tax collected at the point of final sale. If there are no other intermediate sales taxes and if it applies to all items sold to consumers (but not to business firms) it is equivalent to a comprehensive value-added tax, i.e., a VAT down through the retail level, collected at many stages. Such a retail sales tax has of course the same revenue yield as a comprehensive value-added tax. In practice the retail sales tax probably falls short of the VAT in ensuring neutrality since the retail sales tax cannot, in fact, assure that no business inputs will be taxed. The retail sales tax has the same feature of not taxing exports, while taxing imports (according to the destination principle). But it would not
require quite as complex an administrative mechanism for collection as the VAT.

Some proponents of the VAT conclude that, assuming some evasion, which is expected to occur under any tax, the government is likely to lose more revenue under a retail sales tax by evasion than under a VAT. This assertion has to be qualified carefully. It is true if the evasion takes the form of the firm's not registering, thereby reporting no taxable retail sales. Under a VAT, the government still retains the tax collected at the pre-retail stages on value added at those stages. But if the evasion at retail takes the form merely of understating taxable sales instead of failing to report them at all (i.e. failure to register for the VAT), the tax loss under the VAT is the tax rate times the amount of understatement of retail sales, just as with the retail sales tax. If the understatement is so great that the gross VAT tax on sales becomes less than the tax credits for VAT on inputs -- an unlikely case -- and if the tax administration thereupon denies refunds of excess tax credits, then, from this point on, as the retailer further understates sales, the taxpayer gains nothing. The retailer gains nothing from further understatement of sales. What it gains in reduction of gross tax on sales is offset by loss of credit for VAT shown on purchase invoices.

The process of tax reform often involves the need to replace a set of ineffective taxes (defined either as not providing sufficient revenues, being prejudicial to efficient allocation of resources or to attainment of special objectives, or a combination of these) with a more effective tax. In some
countries, the VAT would represent an attractive substitute, as in Korea when several sales taxes were replaced by the VAT. Since the VAT requires a substantial minimum of preparatory work and investment in the administrative machinery to make it work, it is not suitable as a low rate tax. For a comprehensive VAT a rate of perhaps 7 percent, or slightly less (section II.B.1, above) would be required to make the VAT worthwhile.

In most developing countries that have adopted a VAT, the ratio of collections to GDP has increased over time. This contrasts with the VAT in developed countries, where the VAT rates have tended to be relatively high, and where collections from VAT as a percent of GDP has leveled off.

B. What Kind of VAT and at What Stage?

The broadest based VAT extends through the retail level, with no exemptions. From a production viewpoint, the neutral VAT contains only a single rate of tax. No country has achieved, or will attempt to adopt, such a perfectly broad and neutral VAT. Concern for other social, economic and practical administrative objectives will require deviations from this simple structure. The need to reduce regressivity in the structure of the tax for reasons of equity in income distribution leads to pressures to include zero-rating for some essentials and for goods designed for some special groups, and to have higher than the standard tax rates for other goods that are considered nonessentials or luxuries. In developing countries, the question of introducing more than one rate of VAT will be determined by the extent of commitment to certain social and economic policies, but the major constraint is to fit the tax to the limited state of administrative capacity of the
country in question. Among developing countries, there are differences in tax administrative capacity that correlate somewhat with difference in per capita GDP. The comprehensive VAT has been successfully adopted mainly in middle and upper-middle income developing countries.

Among the developing countries the option of introducing the VAT at the pre-retail stage, that is, at the manufacturing or the wholesale level, is a real one. This is especially so where the tax administration requires further experience in collecting a relatively complicated tax and/or where standards of tax compliance are relatively low. Previous experience, or some history with other forms of taxes that require some degree of accounting and record-keeping, may provide the necessary experience to build upon. Thus, a decision to adopt a less than comprehensive VAT may be viewed as the first step in building for a more comprehensive VAT in the future.

VAT-like taxes, in which some elements of the value-added technique are employed, are found in some developing countries, particularly in Africa. These precursors to a VAT provide experience useful to a later shift to a VAT at the pre-retail stage. The Philippines had VAT-like elements in its manufacturers' sales tax for decades. The sales tax in Pakistan contains many features of value-added taxes in other LDCs, including a limited use of tax credits for some imported materials. The recent adoption of a "modified" VAT in India and the imposition of a tax employing the value-added technique for a few industries in China are examples of pre-retail stage, and very limited, VATs.
A logical next step in the evolution of a manufacturers' VAT toward a comprehensive levy would seem to be the wholesale VAT. But some have argued that the superiority of wholesale-level taxation over a manufacturers' tax are so limited that it would be advisable to wait until the country is able to collect a truly comprehensive VAT, once experience has allowed it to gain sufficient capacity to administer the more complex VAT.

If past experience is an indication, the type of VAT most likely to be adopted by developing countries during the remainder of this century will involve a fairly typical configuration. That is to say, countries will tend to opt for a consumption-type VAT, imposed upon the destination principle, using the tax-credit method of collection. The choice between the comprehensive VAT and pre-retail forms will be made according to realities of tax administration and compliance in each country, as will the choice between zero-rating and exemptions for hard to tax sectors. Finally, for these value-added taxes to come, as in those that have been, considerations of income distribution are likely to dominate those of tax administration and tax neutrality in the choice of number of VAT rates.
1. See Shoup (*).
2. See Shalizi and Squire (*).
3. Turkey introduced a VAT effective January 1, 1985.
4. The various definitions of these technical terms are found in Shoup (*) for instance. The "consumption" type VAT taxes only consumption goods and therefore excludes capital goods. An alternative to this is the "income" type of VAT which has for its base, all types of income, including capital income. The destination principle VAT taxes value-added, at home or abroad, of goods that have as their final destination the consumers of that country. In this case, exports are exempt, but imports are taxed. In contrast to this is the "origin" principle, which taxes the value-added that originates within the country. In this case, exports are taxable, but imports are exempt. The origin principle is compatible with the income type of VAT but not with the consumption type and the destination principle is compatible with the consumption type of VAT but not with the income type.
6. This has been the case in Argentina, Chile, Costa Rica, Korea and Indonesia. See Alan Tait (*), table 2, and Milka Casanegra (*), table 1. Only in Bolivia has the share of VAT revenue in GDP declined in the ten-year period following adoption of the tax.
7. See Sandford and Godwin (*).
9. For example, in Indonesia just prior to enactment of the VAT in April 1985, the press was full of all manner of reports and studies maintaining that the introduction of a 10 percent rate of VAT at the manufacturers level would result in an increase of 10 percentage points in the rate of inflation. In fact, price indices for consumer products fell slightly in the first few weeks after adoption of the tax, and domestic inflation for the subsequent year was well below that for the prior year.
11. See for example, Shoup (*), Gillis (*), Conrad (*), McLure (*), and Cnossen (*).
12. See Shoup (*), Schenone (*), Perry (*), and Cnossen (*).

14. The interested reader may consult a wide variety of sources for elaboration of this point. One of the earliest comprehensive discussions of the economic advantages of retail taxation may be found in Due (1957). The arguments offered by Due have proven extremely durable after three decades. For recent analyses, see Gillis (1985) and McLure (1987).

15. See Shoup (*).


17. See Aninat (*).

18. See Shoup (*).
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