Working Paper No. 164

Value added Tax Preparation: Structure and Administration

by
Parthasarathi Shome

Madras Institute of Development Studies
79, Second Main Road, Gandhi Nagar
Adyar, Chennai 600 020

September 2001

Value Added Tax Preparation: Structure and Administration

by

Parthasarathi Shome*

Introduction

The Value Added Tax (VAT) is a tax that has become popular across the world with more than 100 countries having already introduced it. Tax policy experts and tax administrators alike tend to prefer a VAT because of particular reasons. First, the VAT has a self-monitoring mechanism which assists tax administration. Second, the VAT, if appropriately structured, eliminates distortions in decisions by producers that arise from taxation of inputs.

Most countries have the VAT at the level of central government. Latin American countries were among the early implementers of the VAT beginning with Brazil which introduced it in the 1960s (Shome, 1992). Asian and African countries have followed. A VAT at the level of the central government is not as much of a challenge, however, as introducing a VAT at the state/provincial level. This is because a state level VAT should ideally capture interstate sales in the VAT base. Brazil and Canada have done so. Others such as Argentina and India are attempting to do the same. Indian states have tentatively agreed to introduce a VAT in April 2002 though the base being thought of so far has been intrastate sales, that is, any state's VAT would fall on trade within the boundary of that state alone. In that context, several states are initiating preparation for implementing a VAT. Obviously, an important and necessary step would be to include interstate trade under the VAT base.

In what follows, first, the economic principles underlying the VAT are described. Second, a timetable leading to implementation of a full VAT is charted. Third, a framework for calculations for correct revenue implications of introducing a VAT that would replace the sales tax is specified. The framework could accommodate alternative rate and base structures of a potential VAT.

The place of a VAT in a particular state among other state VATs is of special concern. This aspect is analysed in the context of further action needed to harmonise VATs across states. Possible alternative treatments to bring in interstate sales within the base of an eventual VAT covering all states is also addressed in some detail.

Principles of VAT

The VAT is a tax on the consumption of goods and services. The VAT is usually of the type in which the value added in each stage of production and distribution is attempted to be taxed. When the value added in the

* Honorary Fellow, MIDS.

process of production and distribution of a commodity is added up to the retail stage, it results in the retail value of the product. Thus a VAT is equivalent to a retail sales tax (RST) on a commodity. (McMorran, 1995) The RST is collected only from the consumer when he buys the final product. If a tax administration could collect the tax only from the retail stage, then a VAT would not be necessary. This is what the states do in the United States.

If dealers and retailers are mainly small entrepreneurs, it may be difficult for tax administrators to target all of them. It is likely that many dealers and retailers would escape the tax net. Then it may be worthwhile to divide up the collection of the RST into various stages. This is what the VAT does as is explained below.

Table 1 provides a simple tabular example. It indicates that, if there is a 10% RST on a steel plate priced at Rs.250, the retailer would collect Rs.25 (see Column 7) from the consumer upon purchase of the plate, and pass the full amount on to the tax administration (CCT). Thus CCT would target only the retailer for collection purposes. The post-tax retail price is Rs.275 (= 250 + 25).

In India, though the Constitution allows states to impose an RST, no state is able to carry out such an onerous task since retailers are often small entrepreneurs. Instead, CCT imposes the sales tax on the value of manufacturing plus a pre-determined dealers' margin. In the process, (some or much of) the value addition in a commodity beyond the manufacturing stage is lost from the tax base. A VAT, however, should be able to capture most of the lost tax base because of the following reason.

VAT collects revenue in different stages--so it has a higher revenue potential:

VAT would collect the same Rs.25 along all stages of production and distribution of the steel plate. To explain this, let us focus only on the Row indicating Steel Plate (Retail) in Table 1. In the VAT system, the retailer continues to collect Rs.25 from the final consumer (Column 3), so the retail price continues to be Rs.275. However, in recognition of the fact that the retailer himself has paid a tax of Rs.20 to the manufacturer (Column 2), his payment of Rs.20 is considered to be an input tax for which he is entitled to a tax credit or set-off. Thus he will pay only Rs.5 (= 25 - 20) to CCT (Column 4). However, CCT collects a total of Rs.25 in segments from different stages of production and distribution (Column 4: 10,3,3,4,5). And, if CCT is unable to target the retailer, it would still collect Rs.20 from the earlier parts of the chain.

Also of interest is the fact that, in general, if any segment is missed out from the middle of the chain, or if one stage is vertically integrated, the VAT should be able to capture the value added of the combined stages in the tax net. So no revenue is lost since the VAT catches up on revenue upstream. This could be worked out from Table 1.

To review, a comparison of Columns 5 and 4 demonstrates that as value is added in the chain of production and distribution of a commodity--in this case a steel plate--a VAT collects 10% of the value added of each stage, the total revenue being Rs.25. A comparison of Columns 6 and 7 reveals that, if the tax were to be collected only on the retail price of Rs.250, the same revenue of Rs.25 would be collected from the RST (Column 7, last Row). In this sense, the VAT and the RST are equivalent. However, if the retailer cannot be targeted by CCT, the entire Rs.25 revenue from a RST would be lost. In this sense, the VAT is likely to be more revenue productive than the RST.

Table 1.
Equivalence of 10% VAT and 10% RST
(in Rupees)

	Value (1)	VAT on Purchase (2)	VAT on Sale (3)	VAT to Govt. (4)	VA (5)	Ret Pr. (6)	RST (7)
Iron Ore	100		10	10	100		
Steel Sheet	130	10	13	3	30		
Finished Steel	160	13	16	3	30		
Steel Plate (Manuf)	200	16	20	4	40		
Steel Plate (Retail)	250	20	25	5	50		
Total	250			25		275	25

Apart from the advantage of the VAT over the RST, the VAT has several broader advantages. These advantages relate to both the structure of the tax as well as its manner of administration. Many developing countries found the RST difficult to administer and implemented substitutes instead. For example, a common form was to levy taxes at the manufacturing stage (on the basis of a pre-assigned sales value attributed to a good), as is the current situation in the case of the Indian state-level sales tax.

VAT eliminates economic distortions from input taxation

Such turnover taxes are not confined to final consumer goods only, but were generally levied also on capital goods and intermediate products.[1] And their base is turnover without any offset for taxes paid on inputs purchased in the production process. An illustration of the above case of a steel plate would indicate why such a tax could be considered distortionary for the production process even if the goal to generate a revenue of approximately Rs.25 remained the same.

Table 2 indicates that a 2.85 percent tax on turnover, without any credit/setoff for tax paid on input, can also yield about Rs.25 in revenue. However, because there is no setoff, the seller builds in his input tax into the price at which he sells. Thus, though the producer of steel sheet adds Rs.30 in value to the iron ore he purchases, he applies the 2.85 percent tax rate not on Rs.130 (100 + 30), but on his input tax inclusive price of Rs. 132.85

[1] In India sales tax rates have been somewhat rationalised in that final goods are taxed at a higher rate than intermediate and capital goods, but there is generally no input tax credit.

(100 + 30 + 2.85), resulting in a revenue of Rs.3.79 at that stage of production. In other words, the turnover tax falls not only on his value of output (100 + 30), but also on his input tax of Rs. 2.85.

Table 2
Distortions of a 2.85% Turnover Tax
(in Rupees)

	Value (1)	Tax Base (2)	Tax Rev[2] (3)	Market Price (4)
Iron Ore	100	100	2.85	102.85
Steel Sheet	130	132.85	3.79	136.64
Finished Steel	160	166.64	4.75	171.39
Steel Plate (Manuf)	200	211.39	6.02	217.41
Steel Plate (Retail)	250	267.41	7.62	275.03
Total			25.03	

In other words, the tax is collected not just on production value but also on the tax element in every stage of production and distribution. This effective "tax on a tax" (or "cascading") gets into the entire production-distribution chain. This tends to induce the producer or distributer to reallocate his resources away from the particular product and into those for which such a tax may not apply. That action would be entirely tax induced and is distortionary in the sense that it affects production decisions. The VAT avoids this kind of distortion in the allocation of resources because the tax paid in every stage in the chain gets a set-off.[3] Zee (1995) has delineated in some detail the theoretical underpinnings of the economic distortions caused by cascading.

VAT's self-monitoring assists tax administration

In addition, there is a self-monitoring element in the VAT that, in effect, becomes a helpful administration tool. Because an offset for input tax is not given without an invoice for purchase of input, there is an incentive to demand invoices for any purchase made in the chain of production and distribution. Thus transactions have a tendency to get recorded which is not necessarily so under the RST or a turnover tax. It is sometimes questioned that, since usually there is a VAT threshold below which the invoice mechanism does not apply, how far down in terms of business size does the advantage of the VAT apply.

[2] Note, by comparing Tables 1 and 2, that the VAT could collect more at the earlier stage of production than would the turnover tax. In this particular sense, the VAT could be more revenue productive than the turnover tax for a tax structure that terminates at an earlier stage in the chain of production and distribution. It is not difficult to understand why. In the early stage of production the value / value added is high (100). The VAT, which has a higher revenue neutral rate (10 percent in our example) than the turnover tax (2.85 percent in our example), would therefore extract more revenue than would the turnover tax. Yet, the VAT would remain a more efficient tax since it gives input tax credit.

[3] It is also of interest to note that a turnover tax taxes the value added repeatedly. Thus, after taxing the base of 130 in the second stage (steel sheet), the third stage (finished steel) taxes the base of 160 (comprising 130 of the already taxed previous stage plus the value added of 30 generated in the newest stage). Though this does not comprise "tax on tax", it nevertheless results in multiple stage taxation of the same value added, causing inefficiencies comparable to those of cascading.

Even in the case of a VAT threshold, however, there is an incentive for those below the threshold to opt into the VAT system since, as long as they remain below the threshold, businesses purchasing from them cannot use their invoices for the purpose of credit/setoff. Thus small businessmen may find their sales falling behind the rest of the industry. One solution for them would be to opt into the VAT system (Tait, 1991).

The extent to which invoices should be cross-checked has been a matter of debate. When Korea introduced on VAT, it attempted to cross check every invoice resulting in maintenance of voluminous records at considerable administrative cost. Eventually such a practice had to be given up. In the case of China's 1,80,000 VAT payers, 10 million invoices were cross checked in 1999/2000, of which 10,000 were found to be fraudulent (i.e. 1 in 1000). Chinese authorities continue to feel that a high incidence of cross checking is an excellent control mechanism and has resulted in a high VAT elasticity. They feel that cross checks should be given a high priority since they are feasible, given the advances in technology, and that they will assume even greater importance once e-commerce becomes a part of the VAT base. In general, however, once an initial experimental phase of a high incidence of cross-checking successfully establishes acceptable levels of VAT compliance, a more practical and recommendable approach would be to scrutinise invoices carefully only during selective audit. Otherwise, administration of the VAT would tend to become too burdensome. Of course, unless fraudulent cases are strictly punished, selective audit, however deep the scrutiny, will have no teeth in its effects and the self-monitoring aspect of the VAT would have little meaning.

Structuring a VAT

In the most ideal VAT case, a single rate would be enacted with a broad base inclusive of all goods and services except for a short negative list that would be exempted. The VAT return form would be very simple in that case. The taxpayer would maintain two files, one with invoices for all his sales, and another for all his invoices for all his purchases. At the end of each filing period, he would take the difference between all tax received on sales and all tax paid on purchases, and pass that on to the tax administration.

In practice, however, countries have enacted their VATs with different degrees of complexity. In an October 2000 meeting of an expert group on resource mobilisation organised by the UNDP[4], for example, commissioners from various African countries elaborated on individual country experiences with respect to the rate of VAT. Benin has a single rate which was felt to be more manageable though it was difficult to maintain. Mali also had a single rate but it was felt that its recent move from a three-rate structure had led to an increase in the underground economy. Cote d'Ivoire experienced reticence in moving towards a single rate from a three-rate structure though it was decided to move progressively to a single rate structure by the end of 2001. Gabon had taken the reverse route, moving from a single rate to a three-rate structure. And in Congo, the VAT has been debated over the last two years, but has not been introduced yet though, in Ghana, a VAT has recent been introduced to replace its sales

[4] Ad Hoc Expert Group Meeting on Strategies for Improving Resource Mobilisation in Developing Countries and Countries in Transition, UNDP, Montreal, Canada.

and service tax, after a long debate that resulted in a single. Clearly, experiences vary across countries even in the same region. Table 3 describes some cross-country coverage of the VAT in terms of number of rates, stage upto which covered (manufacturing, wholesale or retail), and the type of VAT (i.e. if (I) only raw materials are given input tax credit; or (ii) capital goods are also given full credit; or (iii) capital goods are given partial input tax credit--which are called production, consumption and income type VATs respectively. Tables 4 and 5 identify the essential commodities and services that are covered under the VAT. Tait (1988) discusses the appropriate VAT treatment of different sectors such as real estate, financial services that are more difficult to conceptualise under the VAT.

In the case of India, complexities may be expected resulting from additional rates and exemptions when states are structuring their VATs. The challenge would be to keep the rate structure simple and the base broad. In the best case of VAT structure, Chile collects 9% of GDP in VAT revenue with a VAT tax rate of 18%. Thus, it is possible to receive 1/2 X % of GDP in VAT revenue with an X % VAT and may be used as a benchmark. Chile's coverage under the VAT is extremely wide including unprocessed food. That of New Zealand is also so wide that it is said that the VAT covers an individual from birth to death since even funeral services are taxed under the VAT. In general, countries tend to collect between 1/3 X% and 1/2 X% of GDP in VAT revenue with an X% VAT. A collection of below 1/3 X% would indicate a poorly structured VAT with a narrow-base, possibly compounded by a high evasion rate.

Of course, in a federal country such as India, the exclusion of interstate trade from the VAT base in the initial phase would add complexity to the VAT structure and is likely to dampen its revenue productivity. Interstate trade would have to be incorporated within the VAT structure for a robust VAT base. Recently there has been considerable discussion and debate over the matter in international circles and some of this will be surveyed later.

Elements In VAT Introduction

Comprehensive preparation is required for the introduction of VAT. Table 6 delineates various functions that must be addressed over a period of about 1 1/2 years before a VAT could be introduced in an appropriate and adequate manner. Though several of the salient issues have been individually addressed by states that are preparing for a VAT (Government of Andhra Pradesh 2000; Government of Karnataka, 2000; Government of Madhya Pradesh, 2001; Government of Maharashtra, 2000; and McCarten, Casanegra and Grayston, 1997, for Andhra Pradesh) a clear roadmap for full preparation for the VAT is not yet a common feature. Thus, it should be useful to discuss the nature of the issues and problems that may be expected to arise in the process of VAT introduction so that meaningful measures are taken to address them on the basis of such a roadmap. This is attempted below.

Policy and revenue aspects

Entry 52 of the Constitution gives states power to levy a sales tax and a VAT would not conflict with it since, conceptually, any VAT would be charged at different points of sale. Nevertheless, most countries have VATs that include both goods and services in their base as already indicated. There is a constraint for Indian states since services are not mentioned as a taxable event in the Constitution, except those specifically mentioned such as entertainment and professions. Thus it primarily falls in the residual category that is under central powers. This issue in relation to taxing power over services needs to be clarified further whereby powers between the centre and states are defined. Indeed, a Constitutional amendment may be needed for states to be able to tax services comprehensively.

Under the assumption that only commodities are taxed, the approach delineated in Table 7 might be used to calculate the revenue potential of a VAT. A comparable method has been applied in many countries in Latin America and East Asia since the early 1980s. It must be kept in mind that some states may indeed suffer loss in revenue from VAT introduction reflecting the structure of their prevailing production and taxation regimes. For example, if local sales of manufacturing does not dominate interstate sales, then a high VAT rate would be necessary under the assumption that items exported to another state would attract zero tax.

To give another example relating output with input, Goa currently receives a much higher revenue from naphta--an ingredient in fertiliser production--than the revenue it receives from fertiliser itself. This reflects the 4 percent tax rate on the latter that the centre prescribes. Introduction of the VAT that requires refunds to be made would imply that Goa would have to give input tax offset on naphta. But it would remain unable to make up the revenue loss by taxing fertiliser sufficiently.[5] These types of anomalies would show up clearly once the potential VAT revenue is calculated using the methodology.

There is always a fear when a VAT is introduced that it would have an inflationary impact. In theory, a revenue neutral VAT should not cause inflation since no additional revenue is being collected. However, in practice, the VAT would affect some commodities with a higher tax rate than before, and others with a lower rate. It is not unlikely that some traders will not pass on any tax benefit on through the chain of production and distribution. This will obviate any beneficial price effect on these commodities. Thus there is a possibility that there will be an inflationary impulse from the VAT. Such an artificial passing on of inflation should be monitored in the initial stages of the VAT. This could be done by a VAT Monitoring Cell to be set up by CCT. Many countries have followed this method to keep an eye on price movements after a VAT is introduced.

Issues regarding Operations

All city and mofussil offices would have to address the various functions that are detailed in Table 6. Here, selected functions are described in some detail for a flavour of the intensity of effort required, reflecting the

[5] Note that the CENVAT (earlier MODVAT) at the centre does not give cash refunds but only allows input tax credit to be offset against debit. This is, of course, conceptually not correct and, in practical terms, may turn out to be onerous for the taxpayer with the accumulation of credit. Argentina employs a similar method that has led to the closure of businesses due to cash flow problems.

experiences of many countries that have adopted the VAT. Some of these aspects are gleaned, in particular, from ongoing efforts in Karnataka and initiating efforts in West Bengal.

a. Registration

Registration above the threshold limit (say Rs. 5 lakhs) should be as automatic as possible, and across the counter if taxpayer is already an excise or income tax payer. In case there is a possibility of evasion as in the case of certain commodities/activities, then some cautionary steps might be included at the moment of registration itself. There should be inter-departmental communication to inform regarding new registrants, facilitated by a computer network. Expansion of the number of taxpayers would be based on surveys. Registration forms will have been designed.

b. Taxpayer Number

The taxpayer identification number is extremely important since it will play a pivotal role in a VAT based on a financial control mechanism in which physical control will be minimised. A foolproof method for numbering is needed. The number should be available online to the dealer. A 12 digit system allowing upto 99 lakh could be envisaged.

1 2 3 4 5 6 7 8 9 10 11 12

Of the twelve spaces,[6] 11 would be operational. The second digit could be reserved for the Professional Tax. The next six digits could be centrally allocated, based on: type of dealer, type of manufacturer (small scale, medium, large scale, exporter) and so on. The eighth digit could assign 0 for a taxpayer of the state's sales tax only and 1 for a taxpayer of this tax and Central Sales Tax (CST) on interstate trade. The ninth digit could be for type of enterprise (public sector unit, public limited company, private limited company, registered individuals, unregistered individuals, etc.). The tenth digit could be for form of enterprise (manufacturer, retailer, wholesaler, importer, exporter). The eleventh could represent a band of goods (raw material, consumer durables, processed food, building material, automobile, medical/pharmaceuticals, etc.). The last digit could be a fraud check. This method has been discussed in Karnataka. Other states such as West Bengal are examining less detailed alternatives, Goa and Maharashtra have not yet examined alternatives, and so on.

Alternatively, perhaps a better method in the context of India would be for the state level VAT to use the Permanent Account Number (PAN) used for the central income tax whose issuance is advancing briskly and which could be fruitfully used, especially for cross checking purposes for interstate trade. Further, the PAN information base just in terms of number of registrations is much wider than is currently the case in sales tax administrations of states. Thus using PAN would minimise effort on the latter's part with useful externalities to be obtained from the

[6] Note that each space could accommodate nine categories since the space can assign any number from 1 to 9.

central administration to the level of states. Of course, cooperation between the central direct tax administration and a coordinated state level institution as proposed above would be needed to achieve success in this effort. Maharashtra has expressed interest in such an approach though the idea would have to be discussed much more widely by states.

c. Organisation

The organisational set up under the VAT must be based on functional classification such as Registration and Assignment of Number; Assessment; Audit; Legal/Judicial; Fraud and Penalty; Intelligence; and Management Information System (MIS) including Statistics. The prevailing practice in all commercial tax administrations in India of, in effect, assigning one taxpayer to one tax official for many functional aspects, should be abrogated. Thus interface between taxpayer and tax official should be minimised. A clear organogram from top to down should be set up that would assign enough job content to all staff. The core content of each department should be attached to the organogram.

d. Types of fraud to be anticipated

Various types of fraud could be associated with a VAT against which vigilance needs to be exercised. They include: (1) non registration; (2) exaggerated refund claims from dealers through the use of bogus invoices; (3) nonaccounting of cash purchases; (4) claims based on purchases from unregistered businesses; (5) input tax credit availed on exempted goods; (6) input tax credit availed against uncreditables, for example, credit claimed for automobiles for business purposes when used for personal purposes; (7) VAT collected on imported goods and the tax revenue pocketed by the seller; and (8) false export claims and lower local sales.

A host of problems that may be expected to be already present could continue unless checked. These include: (1) bogus dealers who exist only on paper (such as in iron and steel at present); (2) the higher the rates, the higher are classification problems and higher is evasion; (3) under-reporting of sales (continuation of a current problem); (4) VAT collected but not remitted to authorities; and (5) barter arrangements (exchange of goods against goods).

e. Steps to combat fraud

These include various aspects including: (1) ensuring that a sound MIS is installed; (2) using MIS for data input from the time of registration to VAT return filing to assessment and audit; (3) using MIS regularly for selective cross verification; (3) repetitive checking of export claims, underinvoicing, and stock verification that MIS may not be sufficient to handle; (4) formulating a sample/model invoice; and (5) using specific physical techniques sealing books of accounts for particular activities such as in the case of theatres; (6) reducing delay in reporting. That would need a preliminary report to be made to the officer concerned, followed by a detailed report; (7) selective search and seizure operations that must, however, be kept to a minimum; (8) modifying the prevailing system of penalty for undervaluation that allows purchase of goods by the tax administration but is never carried out. Instead, the value of the commodity may be fixed, say at 30% below MRP and then a penalty applied (9) changing the present penalty for transport without appropriate documentation since they are likely to be low and ineffective. (10) Last but not the least, legislating as few VAT rates as possible would support compliance since it would reduce classification problems, disputes, and the taxpayer - tax official nexus.

f. Human Resource Development (HRD)

HRD should be concerned with specific issues such as: (1) training of officials; (2) office network; (3) staffing; and (4) job skills. In other words, the prevailing level of skills needs to be upgraded. The officer force, for example, may need new skills for the VAT through additional training. It is equally important for lower levels of VAT implementers to receive relevant training. Further, there are specific needs for VAT operations, including a need for a change in management approach that HRD may address.

g. Public Relations and Meeting Dealers' Enquiries

The basic concept of VAT is yet to be fully channeled to "internal customers" i.e. to lower level tax officials who have to actually apply the VAT when implemented though in many states, most officers upto the Assistant Commissioner level have been exposed to some training on the VAT. "External customers" should be approached later, after the structure and operational features of the VAT are firmed up. This reflects a strategy of not confusing the public--both manufacturers and dealers--in any way so that the popularity of the VAT is not affected adversely. This important step should begin with manufacturers, followed by trade bodies, tax consultants, media, and academics. In fact it is suggested that the syllabus for school children might include some familiarity with the VAT since some of them are already familiar with the sales tax.

However, in addition to the above components of preparation, it is imperative that a television campaign be initiated say six months prior to VAT introduction, in which a simple explanation of the VAT be made to the general public in a consumer friendly manner. And, for the taxpayer, the forms and simple instructions should be published in the English and vernacular newspapers. Some budgetary allocation would be needed for this purpose.

To conclude, a careful review of the Time Table for VAT should help indicate the needed direction in which immediate and continuing action needs to be taken. Various states such as Goa Karnataka, Madhya Pradesh, Maharashtra and West Bengal are proceeding with their individual preparations for the VAT. Selected northern states are also making such preparations. Two major lacunae remain, however. First, the advanced states must work out a mechanism to assist those states that have not yet made adequate preparations. Second, the issue of including interstate trade in the VAT base must be addressed and resolved. These issues are taken up below.

Comparative VAT Issues for States

States have tentatively agreed to introduce a VAT in April 2002. Several states are seriously considering a VAT through their own tax reform committees, expert groups, international technical assistance, or their commercial tax departments. While progress is being made in preparation for a VAT in several states such as Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra, West Bengal and a few others, the preparation for a VAT has to be speeded up in many states and even begin in several others. It is imperative for the Empowered Committee of Finance Ministers to provide guidelines and guidance to these states. Otherwise it is unlikely that all states would be able to implement a VAT on intra-state sales in April 2002 as they have agreed to do. Only after that would the question of how to include interstate trade under the VAT be addressed as currently foreseen.

How states might be helped to design their VATs

States that have not so far acted adequately on the VAT issue, should look to other states that are moving briskly on the matter. The latter states, in their turn, would have to take up the cause and provide technical assistance to the former. A forum for such provision probably needs to be set up, for example, in the form of a Secretariat for VAT implementation. As indicated above, some states are opening multilateral credit lines for VAT implementation. Others are finding ways of implementation through domestic sources. Such sources could be utilised to provide consistency in preparation at low cost to those states that need it. Here the Empowered Committee would have to play a guiding role and discuss if an appropriate Secretariat could be set up in a state capital.

A comparative model may be cited in CONFAZ, an empowered committee in Brazil of state finance ministers that meets three to four times a year. Though the VAT is already in operation in Brazil, CONFAZ meets today to coordinate rate and exemption issues among all states in Brazil's state level VAT. In India much more intensive work remains to be accomplished at this stage towards VAT introduction. India's Empowered Committee would have to examine how to bring the slower states on board and provide a forum to take them along in terms of actual preparation and timetable for implementation.

Alternative approaches are possible. The Empowered Committee could invite the central government as convenor as is the case in Brazil where the central government's Deputy Minister of Finance (who is Minister for Taxation) acts as convenor of CONFAZ. He tends to play a facilitating role, with all action being proposed and enacted by the states.

In India, now that states have already agreed to introduce the VAT, an alternative approach would be for the state finance ministers themselves to set up their own secretariat / forum / intstitution for the implementation of a comprehensive intra-state VAT in 2002, as well as for subsequent monitoring of the VAT. In fact, it should also then be responsible for the future preparation and coordination of an interstate VAT.

Interstate issues to be addressed

Even if an intra-state VAT is implemented by all states in 2002, several lacunae would linger in the context of interstate issues that could vitiate the VAT process unless addressed quickly.

a. Floor rates of sales tax

First, given the floor rates agreed to by states for their sales tax regimes, it would be difficult to design a VAT that is single rated or even double rated, by any particular state. For example, a VAT structure of, say 6 percent and 12 percent, would conflict with a sales tax floor rate of 16 percent. Thus states need to come to an agreement regarding new floor rates in case any particular state introduces a VAT before others. Otherwise renewed tax competition cannot be ruled out. The more advanced states in terms of VAT preparation have to enter into a quick understanding with the slower states.

b. Treatment of interstate trade

Second, when a comprehensive VAT is introduced by states, the treatment of interstate trade under such as a VAT has to be resolved. It is clear that states together have to remain intrinsically involved even though, given their diversity, this is not an easy task. Recently there has been some debate in international circles regarding how to deal with interstate trade in a state-level VAT. It is worthwhile reviewing this discussion before assessing the alternatives available in the Indian case.

(i) International discussion of interstate trade

In a state-level VAT, the treatment of interstate trade poses a problem if the VAT is based on the "destination principle", i.e., revenue accrues to the importing state rather than on the "origin principle", i.e., revenue accrues to the exporting state. If based on origin, the exporting or producing state, while keeping the revenue, could "export" the tax to the importing or consuming state. Given that the VAT is perceived as a consumption tax – it could be interpreted as an administratively efficient tax in lieu of the retail sales tax (McMorran, 1995) – revenue from interstate trade in the chain of production, distribution and consumption is perceived as ideally accruing to the importing state. That is, revenue from interstate trade should not be retained by the state in which value added is generated but, rather, by the state in which that value added is used.

It is noteworthy that this view does introduce an anomaly of sorts in the administrative links that comprise VAT operations. Table 1, for example, would indicate how the VAT is generated by a particular stage in the chain. For example, the value added of finished steel is Rs. 30 and the VAT collected is Rs. 3. It would appear from the table that the authorities simply collect the revenue from the value added generated. The issue of consumption does not appear openly, lurking as it were under a veil.

As soon as it is postulated that the steel sheet is sold out of state, the question of which state keeps the Rs. 3 revenue arises because of the VAT assuming the role of a consumption tax. If it is the importing state that keeps the revenue, then the question is how the Rs. 3 would be transferred to it since, as appears in Table 1, the tax is easier collected at the stage of generation of the value added in the exporting state. Also, since the Rs. 3 are not collected in a net amount but, rather, through a credit of Rs. 13 against a debit of Rs. 16, the matter becomes complicated. The credit for inputs purchased would have to be given in the exporting state while the debit for output tax could be designed to be collected in either the exporting or the importing state. In either case, the importing state would need to somehow receive the net Rs. 3 after an appropriately devised mechanism of debit and credit that would involve administrations of both states. One method that was widely discussed until the mid-1990s was a "clearing house" mechanism in which the exporting state would be responsible for both debit and credit, and would deposit the Rs. 3 VAT in a common pool. At the end of the year the collection would be distributed among states in reflection of their relative consumptions. Mutual cooperation among states would be imperative to administer such a destination based VAT and it has not been accepted by any country or EU either operating or discussing an interstate VAT.

Varsano (1995, 1999) offered an alternative to the discussion by introducing the possibility of the central government administering the interstate portion of the state-level VAT in the case of Brazil. Gonsales-Cano (1996) recommended the same for Argentina. Technical assistance provided by the International Monetary Fund in the second half of the 1990s looked into its operational ramifications and pointed towards several lacunae that need to be addressed before implementation. The method has not yet been accepted in any instance.

In a nutshell, Varsano's suggestion is that interstate trade be taxed independently by the central government. McLure (2000) recently endorsed the concept and proposed that the central tax rate on interstate trade should be an average of the intrastate VAT rates. Operationally, the tax could function as follows. The VAT return could have two columns, one for intrastate transactions and the other for interstate transactions. Copies of the same return would be sent to the home-state of the taxpayer and to the central authorities. In the Centre's column, the taxpayer would report the transactions carried out in each state for all interstate transactions. The Centre would routinely consolidate each state's due reflecting the destination principle and distribute the revenue accordingly.

It is noteworthy that: (1) this operation could be carried out even by a state-level administration that could be set up by the states themselves if they could cooperatively set up such an institution; and (2) that there is no particular imperative that interstate trade be subjected to a different tax as it were. The consolidation of VAT returns would use appropriate rates of different states which should not be difficult in a computerised model for revenue calculation.

The lacuna of Versano's proposal lies essentially in forging agreement among states to hand over interstate taxation to the Centre even when they cannot decide amongst themselves to the mechanisms were they to administer it themselves. In political terms, it is not apparent why states would be willing to opt for the Centre to operate part of their VAT structure rather than set up a clearing house themselves. Smaller issues have arisen regarding how to treat registered versus non-registered dealers, for example. Keen (2000) has proposed an appropriate distinction. These proposals do not render them politically any more acceptable.

It is not surprising that Brazil and the European Union (EU), both operating a state-level VAT have opted essentially for an origin-based mechanism for the interstate component of the VAT (Silvani and dos Santos (1996) for Brazil; and Commission of the European Communities (1992) for the EU). The EU has called the arrangement temporary with no finalisation in sight and Brazil has been unable to resolve through internal debate or multilateral technical assistance sought by the authorities.

Canada's experience with the state-level VAT has been quite complex as epitomised in a description in Bird (2000). The Centre applies a VAT called the Goods and Services Tax (GST) and states have devised their own VAT versions resulting in a veritable structural mix. To quote Bird (2000):

> "Four provinces apply a separate retail sales tax (RST) to the GST-exclusive tax base. In one small province, the provincial RST is applied to the GST-inclusive tax base. In three small provinces, there is a joint federal-provincial VAT, called the Harmonised Sales Tax (HST) and administered by the federal government at a uniform rate of 15 percent. Finally, in one province (Quebec) there is a provincial VAT, the Quebec Sales Tax (QST), applied to the GST-inclusive tax base. The QST is administered by the provincial government, which also administers the GST in the province on behalf of the federal government" (p.2).

> "Both the QST, and the federal GST are broad-based taxes on consumption. The GST is imposed at a single rate of 7 percent which applies to most taxable goods and services consumed in Canada. The QST now has one general tax rate of 7.5 percent, which is applied to the price of the good or service including the GST, so that the combined rate is 15.025 percent. Although the QST initially imposed different rates for goods and services and had several differences in base from the GST, most significant differences between the two taxes have now vanished" (p. 2).

It is curious that Bird (2000) should then infer:

> "Canada thus offers a variety of interesting situations: separate federal and provincial VATs administered provincially, joint federal and provincial VATs administered federally, and separate provincial RSTs administered separately. Only the QST and the HST are discussed here.

> "On the whole, therefore, it is not misleading to consider that the QST and GST as they now exist constitute an operational "dual VAT" system. The rates of the two taxes are set quite independently by the respective governments. The tax bases are also determined independently, although they are essentially the same. From the beginning, both taxes have been collected in Quebec by the Quebec Department of Revenue" (p. 2).

The above description of the Canadian VAT should be an eye-opener to how a complex national VAT (centre and states) might develop. In a country of 15 million population or less with ample resources to administer and monitor the tax system, of course any VAT structure could be presumed to be administerable. That does not, however, make it a candidate for emulation. Indeed, it is quite possible that a similar structure in a developing country with a low level of available administrative resources, would probably have been seen in a different light. No doubt the common criticism of Brazil's prevailing VAT structure pertains partially to such notions. This is not to say that Brazil's VAT structure is perfect or that it should be copied elsewhere. But it is certainly not apparent in what form, Canada's system, often cited as a VAT structure for emulation by international experts, is applicable in a developing country such as India.

Regarding the treatment of inter-province trade, Bird (2000) goes on to say :

> "Taxes on interprovincial sales from one business to another are basically handled by a deferred-payment system. Exports from Quebec, whether to another province or another country, are zero-rated. Imports into the province from other provinces, or from abroad, are taxable, but the tax is assessed on interprovincial imports only when there is a sale by a registered trader to an unregistered trader or consumer in the province. Although special regimes apply to automobiles and a few other cases, in general there is no attempt to collect tax on interprovincial purchases made directly by final consumers" (p.2).

> "Interprovincial trade (in the case of the HST applicable to the three small provinces) is handled as under the QST" (p.3).

Thus Canada has moved towards zeo-rating of exports i.e. the destination principle. India should take note that this is not impossible to achieve, therefore. Nevertheless, the homogencity of the Canadian population other than Quebec, its low population size, its ample resources indicating the possibility from alternative sources of making up some of the likely revenue loss incurred by individual states at the point of transition to the destination principle, in combination, appear to have rendered the destination principle feasible. Brazil has devised ways to minimise "tax exporting" from rich to poor states by applying a lower (12 percent) than the general (17 percent) VAT rate. Argentina, Brazil, the EU and India, all more complex and populous are continuing to strive towards reaching agreement on an appropriately designed destination based VAT and it appears that the processes will take time.

Bird (2000) does make an interesting case for an origin-based tax at the state level[7] which could have some relevance for ongoing discussions in India. Given that the origin state provides "cost-reducing public sector outlays", he feels that :

[7] Though he mentions this as an alternative to a corporate income tax or a non-residential property tax that are prevalent in subnational levels in some developed countries.

"A broad-based levy neutral to factor mix should be imposed, such as a tax on value-added" (p. 4).

"It is difficult, however, to find any support along these lines for taxing any one input, however, whether labour (payroll tax) or capital (such as the corporate income tax, or CIT)" (p.4).

"More precisely, the most appropriate form of VAT for this purpose is a VAT levied on the basis of income (production, origin) rather than consumption (destination). Compared to a conventional VAT, such a tax-—which I call a "business value tax" or BVT—has three important distinguishing features. First, it is levied on income, not consumption: that is, it is imposed on the sum of profits and wages, or to put it another way, on investment as well as on consumption. Second, it is imposed on production, not consumption: that is, it is imposed on an origin and not destination basis and hence, in effect, taxes exports and not imports. And third, it is assessed by the subtraction (or addition) method on the basis of annual accounts rather than on a transaction or invoice-credit method" (p.4).

"The danger of tax exporting and, more importantly, beggar-my-neighbour tax competition suggest that it may be advisable to place a floor, and perhaps also a ceiling, on such taxes" (p.5).

The parallel question remains in the case of India as to whether such a tax could or should be levied even in lieu of prevailing distortionary production taxes (even if they are called the sales tax or whatever such name). That would have far reaching consequences for the debate over the state-level VAT structure since interstate trade based on the origin principle could be reincorporated as an acceptable feature.

(ii) Interstate trade under an Indian VAT

In the absence of reform of the taxation of interstate trade, Indian states have focussed on intra-state sales only for coverage under their VATs until recently. Articles 301 and 304 in the Indian Constitution specify that there should be no discrimination in sales tax structures of states between goods inside and outside a state. It may be worthwhile pondering if prevailing powers entitle a state to introduce an intra-state VAT (that will not give input tax offset to goods purchased outside the state) without inviting litigation from other states.

Such a VAT would lead to trade diversion. For example, if state A introduces a VAT with input tax credit allowed only for inputs bought within the state, any entrepreneur would tend to reduce imports from other states, including those from state B. In a chain of such tax induced distortionary behaviour, the entrepreneur--whether from B or A--would face difficulties in selling his product outside his state. This is because entrepreneurs in other states would not receive input tax setoff in their own state on the tax they may have paid in another state. This should choke common market properties among states.

Practical questions that remain would include: (i) is input tax credit to be confined only to locally procured goods, or only against local sales; (ii) is input tax credit to be denied to finished goods that are consigned out; (iii) if

CST is reduced to zero, would the exported finished good be allowed input tax credit; (iv) if local sales of manufacturing is low, then would the implied high VAT be acceptable; and others. Thus, to avoid distortionary practices that would inevitably result, states have to assume a coordinated role in reaching agreement on a destination based principle for interstate sales taxation.

Once such an agreement is reached among states, an appropriate administrative structure for the segment pertaining to interstate sales of a state level VAT has to be devised. One alternative would be to create a clearing house mechanism. Here, when state A exports to state B, state A collects the tax to facilitate administration, and passes the revenue to the clearing house. At the end of a specified period, an accounting of interstate trade would determine the distribution of revenue among states. An administrative and management structure would have to be set up and given charge of the pool.

A second alternative would be to give the central administration direct responsibility in the form of a modified application of Varsano's proposal. Here, sales tax returns of all states would have one column for inter-state sales and a second column for interstate trade. The tax payable on the second column would be submitted to the centre.[8] At the end of the year, the central tax administration would distribute the revenue to the importing states as indicated from the tax returns.

A third alternative would comprise a carryover from the present Indian sales tax system of using a "C Form" for interstate trade. In the proposed system, the importing state would issue the C Form to the importer who, upon its production in the exporting state, would be exempted from paying VAT there. Problems related to this alternative are: (1) if and how the exporter would receive input tax credit; (2) the possibility of continuance of corruption in issuance and use of the C Form; and (3) check-posts at state borders would become essential.

Obviously, the first alternative would favour a more active role on the part of the states, provided they could organise and arrive at a coordinated mechanism that they are willing and able to manage themselves, albeit with central support and guidance if they so wished. But the second alternative gives a much more visible role to the central tax administration in that it has to actually administer the interstate portion of the state level VAT. Alternatively, an all-states VAT administration could be set up to carry out exactly the same function--that of administering only the interstate portion of their VAT. The third alternative has its attraction in that it is a mere modification of an already known system but it also has disadvantages as already mentioned.

All these matters need to be urgently discussed by the states to arrive at a meaningful VAT. Indeed, in 1996, the Ministry of Finance constituted a Group of Officials and Experts to Study the Problem of Taxation of Inter-State Sales, comprising experts, state finance secretaries and sales tax commissioners. Its report[9] made specific recommendations regarding how to proceed, step by step, to a destination based taxation of interstate

[8] The tax payable on the first column would be submitted to the state tax administration.

[9] Report of the Group of Officials and Experts on Taxation of Interstate Sales, Government of India, Ministry of Finance, New Delhi, 1996.

sales from the prevailing origin based structure.[10] This would involve a division of revenue from the 4 percent Central Sales Tax (CST) on interstate trade between the origin and the destination states, with an increasing share for destination states.

The issue of CST has been revived recently but in a partial form in terms of the above approach. Thus, the new understanding is that the CST would be brought down to 3 percent without, however, any plan for recouping the lost revenue from the 1 percent point reduction for distribution to destination states. Neither have considerations for revenue compensation to states loosing revenue from this shift been fully addressed. Indeed, it is expected under this scheme that the CST would be eventually brought down to zero. While this would avoid the problem of creating a clearing house (described above), it would lead to revenue loss.

In this scheme, the third alternative mentioned above has been proposed to be utilised. To elaborate, an exporting state will not collect any tax and, instead, the importing state would have to collect the tax on its imports (as well as on stock transfer). This option is worth examining provided exporting states are willing to accept it. As explained, the importing state would have to issue a "C Form" that the exporting state would have to accept and thus not tax the importer. The importer would have to pay the input tax in his own state and receive credit downstream in the chain of production and distribution. However, this would require great cooperation among states' commercial tax departments in terms of exchange of information on cross-border trade. At present, this kind of communication does not exist. Indeed it may need as much cooperation as in the case of a clearing house. And the expectation of states that the Centre would compensate them for any revenue loss has not fructified in the form of any actual allocation.

The Empowered Committee needs to put all these aspects on the table to consider what is most suitable in the Indian context and weigh them carefully. The formation of a committee of Sales Tax Commissioners in December 2000 seems to be a step in the right direction if they are to preview some of these aspects carefully and present well considered positions to the Finance Ministers who could then take well coordinated decisions. A newly formed committee of Finance Secretaries is also looking into these matters. It is hoped that the three levels will maintain appropriate communication and coordination, culminating in the acceptance of a workable system. This is because it is imperative for states not to introduce their own intra-state VATs but to include interstate trade under the absence of a full resolution, a buoyant revenue base for states, based on a comprehensive VAT--including both interstate and intra-state sales--cannot be structured adequately.

In sum, a clear position has to emerge on the following issues if interstate rivalries in taxation with unwarranted consequences of an uncoordinated VAT, both in terms of economic distortions and revenue productivity, are not to occur. First, states that have been slow so far in conceptualising an appropriate VAT for themselves have to take appropriate action perhaps through technical assistance from other states in practical aspects of VAT implementation. Second, just as in the case of the designing of the floor rates of the sales tax, it

[10] In an origin based system, revenue accrues to the state that exports a good to another state. In a destination based system, revenue accrues to the importing state. Since the VAT is a tax on consumption, it should necessarily be based on the latter principle.

would be optimal to design a harmonised state level VAT in terms of a rate structure (with floor rates) and VAT base (with a common negative list) that is acceptable to all states. Third, interstate sales will have to be brought under the harmonised VAT base. Fourth, a practical administrative structure for the interstate portion of the state level VAT--whether it be a clearing house, or direct administration by the centre or a pooled state administration, or one using the "C Form" and based on close cooperation among state administrations for exchange of information--would have to be agreed upon and implemented.

The Issue of Service Taxation

Unfortunately, thus for India has gone about the issue of service taxation in a fallacious manner. Services, as a taxable entity, has not been mentioned in the constitution. As a result, it is considered to fall in the "residual category" which the Constitution assigns to the Centre. As services have grown to occupy more than 50 percent of India's GDP, the Centre has tended to bring in selected services in the tax base. The original attempt in 1997 led to a national strike by interstate transporters who were brought under taxation. The 2001/02 budget has added more services to this list though the manner in which the tax base will be defined in many of them is not yet clear.

Further, the "service tax", as it is called, is considered as a separate tax. It has a low tax rate of 5 percent and does not allow any input tax credit. Thus it has no relation to the principles of the central VAT (CENVAT) that operates on the credit principle with respect to commodities. As such a low tax rate implies a low potential revenue yield. The first urgent step would, therefore, be the amalgamation of the service tax into the CENVAT structure at a comparable rate.

The second step needed is to allow states to tax services. Services could comprise a concurrent list for the Centre and states or, if that is not feasible, to draw up a distinct states list. There are ample reasons why services that are typically consumed within a state's boundary, with little interstate ramifications, such as laundry and drycleaning, landscaping, hotels and restaurants, miscellaneous repair services, and many others, should be taxed by the state. Maharashtra and some other states have already developed exhaustive lists of services that they should be able to tax.

Such a measure should be seen in light of the fact that states already tax selected services that have been specifically assigned to them such as professional services, entertainment services, lotteries and racing, certain deemed luxury services, and so on. There is no particular reason, therefore, that a broader category of services cannot be assigned to the states.

Assignment of services to the states should make it possible for states to move somewhat more easily to the destination principle for their VAT, rather than waiting for central grants as an enabling factor. It is, therefore, to the Centre's interest to move quickly on the matter. An advisory group in the Ministry of Finance made recommendations in 2000 regarding widening the base for the taxation of services some of which were brought in the 2001-02 budget. But it did not specifically raises the issue of tax assignment. It is hoped that this aspect will also be addressed soon.

Only with the incorporation of services, first into the CENVAT base and, second, in the states' VAT base, can the concept of a broad-based national VAT be perceived as an eventual possibility. If such a consumption tax is to be in the offing, it is imperative that both these matters are put out front in the tax reform agenda of India.

A National VAT is the Ultimate Goal

If one traverses the recent history of India's sales tax reform process, one is impressed by both the considerable obstacles that have been faced, and how some of them have been overcome. Disharmony in federal tax relations bore heavily upon the behaviour of the sales tax. It reflected both competition in rates and an erosion of the base through incentives for new investments. In December 1995, state finance ministers met and declared that they would not grant tax incentives after April 1997 which undercut one another's tax bases. Then they have continued to grant incentives. In December 1996, they met again to re-emphasise their original intentions, and intermittently. The states continued to compete in eroding their tax bases, until they agreed to introduce floor rates for groups of commodities ultimately in April 2000.

The movement from the origin principle to the destination principle should be similarly judged on the basis of the complexities of current practice and the revenue implications for exporting states of any change. This is because currently, states not only levy the sales tax on the basis of the origin principle, but, for revenue reasons, they tax final goods, raw materials, intermediate goods, and capital goods, since the tax is levied at the manufacturer-importer stage, the more a state produces, it receives more revenue and also "exports" higher retail prices to states that import its goods. India's need to replace its present cascading consumption and production taxes with a well-coordinated VAT has already happened at the central level with the excise structure. A comparable base for separate state and central VATs would be desirable in a "concurrent" VAT system. Because important administrative and political realities cannot be ignored, a dual system in which the VAT is levied by the two levels of government independently would take a longer time to be implemented though it should remain the ultimate goal.

In practical terms, this should amount first to conversion of the present Union CENVAT into a manufacturers' VAT, with extension to selected services; rationalisation of rates, with eventually only one rate, would be determined by revenue needs. Second should be the adoption of destination-based VATs on goods (and some services) by the states on a harmonised base with few exemptions, in place of their existing sales taxes, with two or three rates within specified bands. While this would represent a big stride in the right direction, a few cautionary notes are needed. If a well structured intergovernmental VAT emerges, there are some good reasons for keeping excises on sumptuary items separate. Not the least of these is to relieve pressure for multiple VAT rates. Much of the potential economic benefit of a VAT system comes from operating on a large tax base with services taxed broadly. A discussion between the Centre and states is long overdue given that the Centre alone has initiated service taxation. Agreement on the base for services might be easier to achieve if the discussions and negotiations focus on what should be explicitly excluded rather than what new items should be covered.

India needs a well conceived strategy for progress towards a co-ordinated system with salient effects for general government fiscal consolidation. A national VAT—comprising central and state governments—must remain the ultimate goal.

References

1. Bird, Richard M. (2000), "Subnational VATS: Experience and Prospects," Symposium in Honour of John F. Due, 93rd Annual Conference of National Tax Association, Santa Fe, New Mexico, November (draft).

2. Commission of the European Communities (1992), "Guide to VAT in 1993", in *The New VAT System in the Frontier-Free Community*, ECSC-EEC-EAEC, Brussels.

3. Gonzalez-Cano, Hugo (1996), *Armonizacion Tributaria del Mercosur: Ensayos sobre los Aspectos Tributarios en el Proceso de Integracion*, Centro Interamericano de Tributacion of Administracion Financiera (CITAF), Brenos Aires.

4. Government of Andhra Pradesh (2000), *Value Added Tax Implementation in Andhra Pradesh*, Commercial Taxes Department, Project Management Team, Hyderabad.

5. Government of Karnataka (2000), *Value Added Tax in Karnataka: An Examination of Issues and Options*, Commercial Taxes Department, Bangalore, India.

6. Government of Madhya Pradesh (2001), *Preparing for VAT*, Commissioner of Commercial Taxes, Bhopal, India, February.

7. Government of Maharashtra (2000), Expert Committee Discussion Paper on Value Added Tax, Mumbai, India, October.

8. Keen, Michael (2000), "VIVAT, CVAT and All that", *Canadian Tax Journal*, Volume 48, pp. 409-424.

9. McCarten, William, Milka Casanegra and William Grayston (1997), "India: Andhra Pradesh—Agenda for Sales Tax Reform", South Asia Region, World Bank, Washington D.C.

10. McLure, Charles E. (2000), "Implementing Subnational Value Added Taxes on Internal Trade: The Compensating VAT (CVAT), *International Tax and Public Finance*, Volume 7, December, pp. 723-740.

11. McMorran, Ronald (1995), "A Comparison Between the Sales Tax and a VAT", Chapter III, pp. 82-85, in Parthsarathi Shome edited, *Tax Policy Handbook*, International Monetary Fund, Washington D.C.

12. Shome, Parthasarathi (1992), "Trends and Future Directions in Tax Policy Reform: A Latin American Perspective." Inaugural Speech, Annual Conference of the Center for Inter-American Tax Administrators (CIAT), Jamaica, reprinted in *Bulletin for International Fiscal Documentation*, Vol. 46, September, pp.452-66.

13. Silvani, Carlos and Paulo dos Santos (1996), "Administrative Aspects of Brazil's Consumption Tax Reform", *VAT Monitor*, Vol. 7, No. 3, May/June, pp. 123-133.

14. Tait, Alan A. (1988), *Value Added Tax: International Practice and Problems*, International Monetary Fund, Washington D.C.

15. Varsano, Ricardo (1995), "A Tributacao do Comercio Interestadual: ICMS versus ICMS Partilhado", Texto para Discussao No. 382, Instituto de Pesquisa Economica Aplicada, Brasilia.

16. __________ (1999), "Subnational Taxation and the Treatment of Interstate Trade in Brazil: Problems and a Proposed Solution", *Decentralisation and Accountability of the Public Sector*, Annual World Bank Conference on Development in Latin America and the Caribbean, Valdivia, Chile, July.

17. Zee, Howell (1995), "Tax Cascading: Concept and Measurement", Chapter III, pp. 75-79, in Parthasarathi Shome edited, *Tax Policy Handbook*, International Monetary Fund, Washington D.C.

Table 3. VAT : Cross-Country Selected Features

COUNTRY	YEAR VAT INTRO	VAT FORM	STAGE	TAX BASE	NO. OF RATES AT INTRO	RATES CURRENT NUMBER	VAT PRINCIPLE	METHOD OF CALCULATION
ASIA								
China People's Republic of	1984	Production	Manu-Facturing	Selected Industrial Goods	12	12	Destination	Substraction
Indonesia	1985	Consumption	Wholesale	G&S	1	1	Destination	Credit
Japan	1989	Consumption	Retail	G&S	1	1	Destination	Credit
Korea Republic of	1977	Consumption	Retail	G&S	1	1	Destination	Credit
EUROPE								
Belgium	1971	Consumption	Retail	G&S	3	6	Destination	Credit
France	1968	Consumption	Retail	G&S	4	6	Destination	Credit
Germany	1968	Consumption	Retail	G&S	2	2	Destination	Credit
Italy	1973	Consumption	Retail	G&S	3	4	Destination	Credit
Netherlands	1969	Consumption	Retail	G&S	2	2	Destination	Credit
United Kingdom	1973	Consumption	Retail	G&S	1	1	Destination	Credit
Bulgaria	[illegible]	Consumption	Retail	G&S	2	2	Destination	Credit
Hungary	1990	Consumption	Retail	G&S	2	2	Destination	Credit
Turkey	1985	Income Type	Retail	G&S	1	5	Destination	Credit
Western Hemisphere								
Argentina	1975	Consumption	Retail	G&S	1	1	Destination	Credit
Brazil	1967	Consumption	Retail	G&S	1	2	Origin/ Destination*	Credit
Canada	1991	Consumption	Retail	G&S	1	1	Destination**	Credit
Chile	1975	Consumption	Retail	G&S	2	1	Destination	Credit
Colombia	1975	Consumption	Retail	G S taxed selectively	3	2	Destination	Credit
Mexico	1980	Consumption	Retail	G&S	1	3	Destination	Credit

G & S = Goods & Services
*States use origin principle, though some rate accommodations are made to approach the destination principle.
**Not all provinces have as yet opted for the VAT

Table 4. VAT : Cross-Country Treatment Of Essential Commodites

COUNTRY	UNPRO-CESSED FOOD	PRO-CESSED FOOD	CLOTH/ FOOT WEAR	DRUGS/ MEDI-CINE	ELECTRITY	WATER	NEWS PAPER BOOKS	PUBLIC TRANS-PORT	PARTICULARS
ASIA									
Indonesia	X	S	S	S	S	S	X	X	Domestic air transportation is subject to VAT
Japan	S	S	S	S	S	S	S	S	
Korea Republic of	X	S	S	S	S	X	X	X	Transportation by air or taxi s.t. standard rate
EUROPE									
Belgium	L	L	L,SI,H	L	SI	L	X,Z,L	L	SI is on intermediate rate of 17% Standard rate is 19%
France	L	S	S	L	S	L	L	L	
Germany Federal Republic	L	L,S	S	S	S	L	L	L,S	
Italy	L	L	L,S	L	L+	L	X,L	X	+ excise tax
Netherlands	L	L	S	L	L	L	L	L	
United Kingdom	Z	Z,S	Z,S	S	Z	Z	Z	Z	Prescription drugs and water for non-industrial use Z
Hungary	Z	Z	L,S	Z	Z	Z	Z	Z	
Turkey	L	S	S	S	S	S	L	Z	Water for agriculture is exempt
WESTERN HEMISPHERE									
Argentina	X	X,S	S	X	S	X	X	X	
Brazil	X	S	S	X	S	S	S	S	Federal VAT, States
Canada	Z	Z,S	S	X,S	S	X	S	X	Prescription drugs & medical devices are exempt
Chile	S	S	S	S	S	S	S	X	
Colombia	X	Z	S	Z	X	X	Z	X	
Mexico	Z	L	S	L	S	Z	X	X,S	Air or rail transportation is s.t standard rate

S=STANDARD RATE
H=HIGH (ABOVE STANDARD0
T=TAXED SEPERATELY
L+=EXCISE

Z= ZERO RATE
L=LOW OR REDUCED RATE
X= EXEMPT
SI=INTERMEDIATE RATE

Table 5. VAT : Cross-Country Treatment of Selected Services

COUNTRY	LAUNDRY	HOTEL/ REST-AURANT	AMUSE-MENT	TELECOM-MUNCATIONS	REPAIR/ MAINT. MOV-ABLE GOODS	LEASING MOV-ABLE GOODS	FREIGHT/ STORAGE	ADVER. TISING ADMIN	PROFES-SIONAL/ LEGAL	MEDICAL	PARTICULARS
ASIA											
China People Rep.	T	T	T	T	T	T	T	T	T	T	Business Tax on services
Indonesia	S	X	S	S	S	S	S	X	S	X	Integrated +Devt. Tax
Japan	S	S+	S	S	S	S	S	S	S	X	Integrated +Excise Tax
Korea Republic Of	S	S+	S+	S	S	S	S	S	X	X	Integrated +Excise Tax
EUROPE											
Belgium	SI	L,SI	X,L	S	S	S	S	S+	X,S	X	
France	S	L,S	L,S,X	S	S	S	S	S	X	X	Integrated
Germany Federal Rep.	S	S	X,L	S	S	S	S	S	S	X	Integrated
Italy	S	L	S	X,L	S	S	S	S	S	X	Integrated
Netherlands	S	L	L,S	X	S	S	S	L,S	L,S	X	Integrated
United Kingdom	S	S	S	S	S		S	S	S	X	Integrated
Hungary	S	Z,S	X,Z,S	Z	L	S	L	S	X,S	Z	Integrated
Turkey	S	S	S	S	S	S	S	S	S	Z	Integrated
WESTERN HEMISPHERE											
Argentina	S	S	X,S	S	S	S	S	S	S	S	Integrated
Brazil	T+	T+	T+	T	T	T	X+	T	X	X	State/ municip excise taxes
Canada	S	S	S	S	S	S	S	S	S	X	Integrated
Chile	S	S	S	S	S	S	S	S	X	X	Integrated
Colombia	X	S+,S	X,S+	L	S	X	X	X	X	X	Services taxed selectively
Mexico	S	S	X,S,H	S+	S	S	S	S	S	X	Integrated +Excise Tax

S=STANDARD RATE, H=HIGH (ABOVE STANDARD), T=TAXED SEPARATELY, Z= ZERO RATE, L=LOWER RATE, X= EXEMPT, SI=INTERMEDIATE RATE, S+=STANDARD PLUS AN EXCISE RATE

Note : Source for the tables should be mentioned as Tax Policy Division, Fiscal Affairs Department, International Monetary Fund.

Table 6. : VAT Time Table

	2001 January	February	March	April	May	June	July	August	September	October	November	December	2002 January	February	March	April
I.Leg. & Rules																
Finalise draft tax law																
Auxiliary law																
Draft Rules																
Ministry of Law Review																
Law returned to CCT																
Review by Cabinet																
Ordinance and Gazetting																
II. Publicity																
Private sector discussion																
Private sector consult on operation																
Copies for trade/professions																
Seminar for trade/professions																
Finalize VAT guide																
Finalize Registration leaflet																
III. Advertising																
Registration advertising																
Implementation advertising																
Payment advertising																

	2001 January	February	March	April	May	June	July	August	September	October	November	December	2002 January	February	March	April
IV. Organizational																
Staff to VAT Cell																
Organization structure																
Finalize no. of tax payers																
Staff to administer																
Manager & Supervisers																
Auditors & Processors																
Data entry staff																
Debt collection staff																
V. Operational																
Design audit system																
Design Registration System																
Returns/Payment/Process-ing system																
VI.Forms																
Finalize registration application form																
Finalize registration certificate																
Finalize return form																
Print registration application form																
Print registration certificate																
Print return form																

	2001 January	February	March	April	May	June	July	August	September	October	November	December	2002 January	February	March	April
VII. Computer Development																
Decide computer allocation																
(Complete user spaces – registration system)																
Develop registration system																
Test registration system																
Load final registration data base early supn																
Complete users spaces. On going system																
Develop ongoing system					←										→	
Test and develop ongoing system									←						→	
VIII. Manuals																
Prep. initial staff manual									←			→				
Prep. supplim. manual									←				→			
Prep. audit and compliance manual									←					→		
IX Training Delivery																
Preliminary training			←								→					
General training			←												→	
Audit training delivery									←							→

	2001 January	February	March	April	May	June	July	August	September	October	November	December	2002 January	February	March	April
(X). Registration and Implementation																
Issue registration application forms																
Issue registration certificates																
Conduct advisory visits																
Issue first return forms																
Receive first payments																
Identify defaulters																
Pursue defaulters																
XI. Monitoring Cell																
Follow price movements																
Inform traders																
Action taken																

Table 7. Methodology for VAT Base Calculation

A. Total baseline revenue

- **i. West Bengal Sales Tax**
- **ii. Central Sales Tax**
- **iii. Other taxes to be combined**

B. Taxable local turnover (TO)

(only locally manufactured and traded output since there will be no VAT on interstate trade initially)

C. (Differentiate among outputs subject to different VAT rates)

For example:
Say, share of turnover in primary commodities: 35%
Say, share of turnover in other commodities: 65%

Then:

- **i. Turnover in primary commodities (lower VAT rate applicable)**
- **ii. Turnover in other commodities (higher VAT rate applicable)**

D. Inputs

- **i. Inputs in B (x% of B, say 55%)**
- **ii. Inputs to be exempted (y% of B)**
- **iii. Inputs to be given credit (x-y% of B)**

E. (Differentiate among inputs subject to different VAT rates)

- **i. Inputs in D iii matched against primary commodities C i**
- **ii. Inputs in D iii matched against other commodities C ii**

F. Taxable turnover

(C i minus E i) + (C ii minus E ii)

G. Other modifications needed for calculation of VAT base

i. Broaden VAT base

Reflect withdrawal of any sales tax exemptions

ii. Plant and machinery rebate

Phase in over 5 years, 3 years, or immediate rebate

iii. Turnover outside VAT base

Petrol, diesel, kerosene
Country liquor

iv. Reduction in base reflecting VAT threshold

Impact of allowing compounding above VAT threshold

Impact of any reduction in tax evasion

H. Calculation of required VAT rates

i. If single VAT rate divide total current revenue A by total base F, and then apply modifications from G as applicable

ii. If two VAT rates, divide appropriate combinations from A by F i and F ii, and apply modifications from G as applicable