AUDITING

Auditing starts with examining/scrutinizing the following records :

a) Ledger and other related books of accounts and records,

b) Sales Invoices,

c) Purchase Invoices,

d) Subsidiary sales journal,

e) Subsidiary Purchase Journal,

f) General Journal,

g) Cash book,

h) Tax payment Receipts etc.

The steps followed during the audit are as follows :

(i) The first step for auditor/examinar is to examine the VAT return for any defects or deficiency on the face of the return.

(ii) To verify whether the taxpayer is registered under the VAT law and whether the taxpayer has valid registered VAT Invoices.

(iii) Examining sales and purchase invoices and counter check the same information against sales book and purchase book.

(iv) Checking the records of big suppliers for purposes of determining actual purchase for the stipulated period.

(v) Checking purchase invoices, determine compliance with VAT regulations for purposes of claiming input tax credit on local purchases i.e.

– Vat registration number should be indicated on the face of the invoice.

– Purchase invoice invoiced/sold to cash are disallowed and it should be in the name of taxpayer.

(vi) In checking the veracity of the amount of input tax credit claimed from importations, auditors secure the inportation papers : Import entry/ consumption entries and xerox copies of official receipts of payment.

(vii) In examining sales invoices auditors likewise check the taxpayers compliance with VAT regulations. Special attention is given to deductions from output tax because of sales discounts.

(viii) In certain cases access " to records " of selected clients of tax payer is secured to check for any underdeclaration in sales. A careful study of the " Cash accounts " is like wise very important in the audit process.

Any unexplained increase in cash receipts other than those coming from sales, advances, additional investment may indicate an underdeclaration of sales.

Any large cash disbursements are negative cash balance per month which the tax payer can not explain may also mean underdeclaration of sales. That's why the audit of cash account is very important.

(ix) Bank statements are consulted as additional guides specially for checking the accuracy of input and output tax calculations.

(x) Whether exempt and zero rated goods are properly recorded are also verified.

Audit Management Activities

Some would classify audits as (1) examinations, that is, the administrative check of returns at the district office; (2) verifications, which basically are field audits; and (3) in-depth audits, usually where a suspicion of fraud exists.

Audit management activities, which management should design, organize, monitor, evaluate, adopt, correct, and approve, include the following:

- Search for unregistered taxpayers.
- Indentifying the information needed by the taxpayers about VAT.
- Establishment of criteria to select audit cases.
- Selection of cases.
- Collection of information about trader practices.
- Preparation of VAT audits.
- Performance of office and field audits.
- Reporting on audits.
- Discussion and decisions about the outcome of audits.
- Processing of results for use in other audits and for management decision making.
- The quantity and quality of audit work.
- Training needs for audit.
- Staffing requirements.

TAXPAYER TREATMENT AND ESTIMATION OF VAT POTENTIAL.

Variations in treatment of different taxpayers is necessary

In most countries, a relatively small group of taxpayers accounts for a substantial proportion of tax revenue (generally, 5 percent of taxpayers account for 75 percent or more of the revenue); this has prompted some countries, including the United States, to establish special systems and organizational units to monitor the largest taxpayers. There is increasingly widespread recognition of the idea that taxpayers should be treated differently with regard to collection and audit procedures, depending on their size. Many countries now monitor more closely the largest taxpayers, usually the top 10 percent of taxpayers. However, if none of the remaining 90 percent is monitored the tax administration will never be truly effective. In 1995-96 about 76% of domestic VAT was collected in the manufacturing sector from there items, viz., cigarette, biri and gas. Similarly in the service sector telephone, C&F agents, insurence, cinema and construction contributed 86% of the total collection from service sector in the same year.

It may be worth while to mention here that historically the trend of taxpayers composition even in land revenue in Bengal at the time of the decential settlement (1790) was of similar nature. The following table shows that only twelve zaminders paid 53.11% of the total land revenue of Bangal at that time:

Table:
Twelve Great Zamindars of Bengal[1]

Sl. No.	Names of the Zaminders	Decimal Jama (in thousand)	As Percentage to total land Revenue of Bangal
01.	Burdwan Raj	32,66	17.15
02.	Rajshahi Raj	22,50	11.81
03.	Dinajpur Raj	14,84	07.79
04.	Nadia Raj	08,54	04.48
05.	Birbhum Raj	06,30	03.31
06.	Bishuapur Raj	04,00	02.10
07.	Eusufpur (jessore)	03,03	01.59
08.	Rajnagar (Dacca)	03,00	01.57
09.	Lashkarpur (Rajshahi)	01,89	00.99
10.	Idrikpur (Rangpur)	01,60	00.84
11.	Roushnabod (Commilla)	01,54	00.84
12.	Jahangirpur (Dinajpur)	01,23	00.64
Total : Sicca Rs.		**10,113**	**53.11**

(Total Government revenue demand on Bengal in 1790 was Sicca Rs. 1,90,40,000).

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1. **Sirajul Islam, The Permanent Settlement in Bangal, A study of its operation 1790-1819. Bangla Academy, Dhaka, 1979. (pp. 3-4).**

Immediately below the great Zaminders were middle group of Zaminder whose annual gross incomes ranged from 20,000 to one lakh rupees. Next to this group were petty Zamindars and Chowdhuries, whose gross income were insignificantly low compared with that of the Zamindars and middle group of Zamindars. In 1787, the annual revenue demand on Chittagong was slightly above three thousand rupees shared by about two thousands of petty Zaminders. Vast majority of them were so tiny that their annual government revenue, was as low as 2 or 3 rupees and some less than one rupee. In 1790, 7327 villages of Sylhet were lend by an army of twenty five thousands of chowdhuries. Their combined dues to Government amounted to only four lakhs of rupees per annum. Though the above picture portrays a land revenue structure of more than two hundred years old, it has not lost its relevance when we relate the frame with the number of taxpayers in relation to the total amount of tax paid in any tax system.

Monitoring the large taxpayers will provide information that can be used to monitor small and medium size taxpayers. In addition to increasing revenue in the short term, In Uruguay, for example, some of the large taxpayers engaged in certain activities were added to provide details on their purchases; the supplier's records were then checked to see if they reported the sales. Similarly, to monitor the construction material (lumber) sales of wholesale vendors, large taxpayers engaged in the production of construction materials were asked to report their sales. In this case, the goal was to determine whether the purchases made by the (lumber)dealers were inconsistent with their reported sales. Both programs were facilitated by current information of economic activity and on large taxpayers purchases and sales available in the computer data base.

In Argentina, the monitoring of the large taxpayers played a significant role in increase in tax revenue. This began with a pilot system that monitored the 800 largest taxpayers. This system is now used throughout the country, and is capable of monitoring about 100,000 taxpayers.

Organizational Change

The introduction of new technology will also have impact on the organizational structure of tax administrations. Organizations will be increasingly driven by data. Managers will have to help redesign the tax administrations, not just maintain the status quo. Managers should ask, how can the organization be stimulated to accept change? What will be the repercussions of changes in work methods? For example, what will be the impact on internal auditing of the elimination of paper as the data medium?

As regards organization, there are three foreseeable future trends : operational decentralization, the integration of functions, and administrative autonomy[1]. With the introduction of computer technology, many tax administrations were reorganized in the 1960s along functional lines. Typically, administrations were organized around collection, auditing, appeals, and computing systems. This specialization increased productivity. Again based on the concept that the taxpayer is a single entity and that the administration must therefore focus on the taxpayer. This requires that the collection, auditiong, and appeals functions be integrated. The taxpayer should be able to resolve all related issues at a single office. National Board of Revenue's General orders No 16 dt. 19/9/95 and 17 dt. 26/10/96 issued from the VAT wing aim at this direction of change.

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1. **Jenkins, Glenn. Modernization of Tax Administrations : Revenue Boards and Privatization As Instruments For Change (Cambridge :Harvard Institute for International Development, April, 1993).**

Revenue productivity ratio

A simple method for estimation compliance is to calculate the amount of VAT revenue collected as a proportion of gross domestic product (GDP) per point of the VAT rate. This ratio is commonly referred to as the revenue productivity ratio. According to this measure, high revenue productivity ratios are associated with high levels of compliance. Mathematically, the revenue productivity ratio is defined as follows:

RP= (VAT/GDP)/t

Here:
RP = Revenue productivity ratio
VAT = VAT revenue collected
GDP = Gross domestic product
t = Average VAT rate (weighted)

The main advantage to using this measure of compliance is that all of the components of the calculation are based on actual or observable data; no estimation is required. Because the data requirements for the revenue productivity ratio are mossiest and easily satisfied, the calculation can be made with a minimum of effort.

ESTIMATING VAT BASE

The idea to estimate potential VAT base in relation to the size of GDP emerged from a discussion with IMF supervision mission in Bangladesh in 1994. The main points were—can the following factors, i.e. (a) the size of the economy in terms of GDP, (b) the size of the formal economy, (c) the rate of the VAT, (d) the level or quantum of value addition in the economy, and (e) other factors cast any limitation on the volume of VAT collection? Is there any correlation amongst all these factors influencing the volume of VAT? Is it possible to overcome any constraint placed by any (or all) of these factors through administrative measures e.g. improvement in VAT administration by changing techniques of present administration of through introduction of technological elements like computerization. The author's search for a satisfactory answer to these basic questions and all efforts to this end resulted in the following.

The widest VAT base is all purchasable goods in the economy, that is, GDP plus imports minus exports. Thus the starting point is the national accounts. However, the estimate can be made either from the expenditure side or from the supply/production side. The expenditure side method could be summarized as follows. To total domestic expenditure (including imports), add net private expenditure from abroad, subtract nontaxed expenditure (typically, government expenditure on wages and salaries, fixed capital formation except private expenditure on new houses and change in inventories), to obtain taxable expenditure. Adjust for taxes on expenditure, to obtain adjusted taxable expenditure. Further, subtract exempted expenditures (typically, the financial sector, nonproft and social organizations, small businesses below a legally defined threshold, and gross rents paid) but add back taxable inputs and capital purchases of exempt sectors, to obtain the potential VAT base.

The VAT base calculation from the production side is quite similar, except that zero-rated exports have to be subtracted and imports added. In the expenditure side method, exports are already excluded from the domestic expenditure base. It is more convenient to use the production side method whenever the VAT contains many exemptions by economic sectors rather than by products for final sumption. Sectoral data are more amenable to production side estimates, while

exemptions specified for particular products would be more amenable to expenditure side estimates. Further, given the nature of the VAT, that is, collection based on stages of production, sectoral data are again more amenable to base calculations.

Using the above mentioned methodologies, and IMF study has made some interesting inferences regarding the relationship between the VAT rate and the ratio of VAT revenue to GDP. For example, the concept of "revenue productivity ratio means the amount of revenue raised per point of the VAT rate." A country whose ratio approaches 0.5 percent could be said to be performing at a high VAT effort.

Compliance coefficient

Another measure of compliance is the compliance coefficient which is defined as the ratio of actual VAT revenue to potential VAT revenue. The compliance coefficient can be cumbersome to calculate because it requires making an estimation of potential revenue. Despite this limitation, the compliance coefficient will serve as the basis for the study because it accurately represents the definition of compliance discussed at the begining of this section. Mathematically, the compliance coefficient is defined as follows:

cc = VAT/(txPB)
where
cc = Compliance coefficient
VAT = VAT revenue collected
t = Average VAT rate (weighted)
PB = Potential VAT base

The key to making the compliance coefficient operational centers on estimating potential revenue which can be expressed as the product of the average VAT rate and the potential VAT base. The calculation of the average VAT tax rate is straightforward and only requires data on the amount of VAT revenue collected from each VAT rate.

Number of rates.

The relationship between the number of VAT tax rates and taxpayer compliance has been discussed in various studies. As Tait points out, the amount of information required to administer a VAT increases geometrically with the number of tax rates[1] Multiple-rate VATs complicate compliance because firms are required to account separately for each different rate category when filling out tax returns[2].

Potential base

Exemptions reduce the size of the potential tax base. In doing so, exemptions have been observed to both increase the cost of compliance and provide additional opportunities for evasion. Exemptions increase compliance costs by complicating the record keeping required to complete the tax return. As in the case of multiple-rate VATs, exemptions provide an avenue for evasion by opening the door to intentional misclassification of goods by taxpayers.

Other factors

A second broad group of variables relate to the structure of production (as measured by the agriculture to GDP and imports to GDP ratios) and the level of economic development (as

measured by per capita income, literacy rates, and degree of urbanization). Compliance can be affected by the economy's structure of production because as the formal sector expands taxation tends to be increasingly determined by a more readily measurable and verifiable tax base, thereby reducing opportunities for non-compliance. The level of economic development can also be expected to influence compliance to the extent that tax administrations operating in wealthier countries have access to more advanced technological resources and more skilled staff to identify and control non-compliance.

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1. **Tait. Alan, Value Added Tax, International Practice and Problems, (Washington, D.C. IMF, 1988)**

2. **Choi, Kwang. "Value Added Taxation: Experiences and Lessons of Korea," In R.Bird and O. Oldman, Taxation in Developing countries, Fourth Edition, (Baltimore, MD: John Hopkins University Press, 1992)**

Using the revenue productivity ratio to estimate VAT revenue

In the Table (page 45), the revenue productivity ratio is calculated for 20 countries which are separated into four groups based on each country's level of compliance and the size of its potential VAT base. An average revenue productivity ratio is then calculated for each group. These group averages can be used as a basis for predicting revenue by countries planning to introduce a VAT. For example, Table hereunder shows that a country planning to implement a 10 percent VAT, with a potential base of over 55 percent of GDP and anticipated compliance rate of under 70 percent, can expect to raise approximately 4 percent of GDP in tax revenue.

VAT Revenue Productivity Averages (as a percent of GDP)

	Compliance Coefficient	
Potential VAT Base (as a percent of GDP)	Over 70 percent	Under 70 percent
Over 55 Percent	0.58	0.40
Under 55 Percent	0.34	0.26

An attractive feature of the abovenoted table is that it concisely conveys a great deal of information on compliance, the potential base, and the level of the average rate which can be used to estimate VAT revenue.

First, the main lesson to emerge from this study is that a well-designed VAT is not always sufficient condition to ensure compliance. Many countries in the sample exhibited low levels of compliance even though they maintained VAT features that are administratively "desirable" (i.e. a single, low VAT rate applied to a broad potential base). At the same time, many countries in the sample were able to achieve high levels of compliance despite possessing VAT features that complicate administration (i.e. multiple rates, high average rate, and narrow base). The latter set of countries hold out the prospect that good tax administration can overcome the constraints imposed by policy and vice versa.

Second, the study suggests that the structure of production and the level of economic development contribute significantly to the level of compliance. These results validate the assumption that shifts in the structure of production toward more easily measurable economic sectors leads to improvements in compliance. The results also confirm the notion that as countries increase in wealth they are able to achieve higher levels of compliance. This may occur because wealthier countries possess more sophisticated technology and skilled tax administration staff. It may also occur because increase in income are associated with other factors that promote compliance such as higher levels of literacy and urbanization.

Third, the variables included in the study accounted in the study accounted for less then half of the variance in the level of compliance. Other factors, excluded from the study, clearly play an important role in determining compliance. Tanzi and Shome summarize many potentially significant variables, such as attitudes and social ethics the structure of the business sector, the cost of compliance, and the effectiveness of the tax administration[1]. Although these factors are diffcult to measure, it is important nevertheless to recognize that compliance is affected by many varied and complex factors. This last point suggests that in designing strategies to improve compliance, policy makers should avoid blanket prescriptions and quick fix solutions. Instead, priority should be given to developing policies that are tailored to specific conditions facing each country.

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1. Tanzi Vito and Parthasarathi Shome, "A primer on Tax Evasion", WP/9321 (Washington, D.C. IMF, 1993).

Summary of the Methodology to calculate VAT Compliance.

Sales	
+ gross production	
+ imports	
=Total supply	
- exemptions	
- exports	
- change in inventories	
= Taxables sales	(1)
Purchases	
+ total purchases (intermediate consumption)	
- purchases of exempt inputs	
- purchases of taxable inputs for production of exempt goods and services	(2)
= Net purchases	
Investments	
+ total investments	
- exempt investments	
- taxable investments fot the production of exempt goods and services	
= Net investments	(3)
Potential taxables base (includes actual VAT revenue = (1) -(2) - (3)	(4)
Actual VAT revenue	(5)
Potential taxables base (net of VAT)= (4) - (5)	(6)
Potential revenue = Average VAT rate x (6)	(7)
Compliance Coefficient = (5)/(7)	

VAT Data Series

Counrty	Year	Compliance Coefficient I/	Revenue Productivity	VAT Revenue GDP ratio	Number of VAT rates	Average VAT Rate	Potential Base GDP ratio	Per Capita l Income (US$)
Argentina	1992	-	0.33	5.9	1	18.0	47.6	2790
Bolivia	1990	-	0.28	3.1	1	11.1	49.9	650
Canada	1991	-	0.32	2.2	1	7.0	41.3	20440
Chile	1991	-	0.49	8.8	1	18.0	59.8	2160
Colombia	1991	-	0.19	2.4	5	12.2	30.4	1260
Ecuador	1991	-	0.31	3.1	1	10.0	50.9	1000
Guatemala	1992	-	0.36	2.5	1	7.0	76.2	930
Honduras	1992	-	0.42	3.1	2	7.3	65.2	580
Hungary	1991	-	0.44	6.1	2	14.0	68.5	2720
Israel	1992	-	0.54	9.7	1	18.0	58.4	11950
Mexico	1992	-	0.30	3.0	1	10.0	48.3	3030
New Zealand	1992/93	-	0.67	8.4	1	12.5	70.7	12350
Panama	1991	-	0.36	1.8	1	5.0	76.4	2130
Peru	1992	-	0.17	3.1	1	18.0	53.3	1070
Philippines	1992	-	0.24	2.4	1	10.0	40.4	730
Portugal	1991	-	0.71	6.4	3	9.0	82.3	5930
South Africa	1992/93	-	0.52	5.2	1	10.0	61.3	2560
Spain	1989	-	0.52	5.4	4	10.5	69.6	12450
Sweden	1992	-	0.35	8.0	2	23.2	36.5	25110
Uruguay	1991	-	0.34	7.4	2	21.6	49.0	2840
Average		69.2	0.4	4.9	1.7	12.6	56.8	5634
Bangladesh	1993-94	52	0.27	3.99	1	15	49.6	220

Notes : I/Data omitted to preserve confidentiality.

Source: Carlos Silvani, Unpublished Memorandum, Fiscal Affairs Department, IMF, September, 1992. Data on Bangladesh was calculated by Dr. Rafiqul Islam, First Secretary (VAT), National Board of Revenue, Govt. of Bangladesh.