Value Added Tax and Its Application in Bangladesh

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1. Introduction

Over the course of the last few decades, the patterns of indirect taxes throughout the world have undergone tremendous changes. The innovation of the value added tax (VAT) is a resulting outcome of these changes. It is a spectacular fiscal phenomenon. Within a rather short time span, this tax has exploded from its rudimentary form to become the state-of-the-art tax on goods and services all around the world. Today the VAT is considered more and more as the most efficient, broad based and revenue productive system of indirect taxation. In recent times, the VAT has become the most important type of sales tax in most developed countries, and an increasingly large number of developing countries have also adopted it (Jinyan 1988). In fact, its rapid acceptance is unmatched by any other tax in modern times. Now some form of the VAT is found in around eighty-eight countries of the world (Alam 1991b:1). The Systems of the VAT in these countries vary in many respects.

Bangladesh introduced a system of the VAT to overcome the existing drawbacks of indirect taxation on July 1, 1991. While the government leaders emphasised the virtues of the VAT, a segment of the business community and the then opposition politicians reacted sharply against it. A study of the VAT in Bangladesh is thus necessary in order to facilitate a better understanding of its working and its prospects as a means of revenue collection in our setting.

The purpose of this paper is twofold. Firstly, the paper discusses the general issues on the VAT which covers mainly nature, computation, operation and principle of the VAT as well as its advantages and disadvantages. Secondly, the paper highlights the aspects of the VAT in
Bangladesh with particular attention to the necessity of tax reform, the reasons for preferences of the VAT, salient features of the VAT and probable economic effect of the VAT.

II. General Issues on the VAT

1. Definition and Nature of the VAT

Value added is the difference between the value of a firm's sales and the value of the purchased material inputs used in producing goods sold. The VAT is a tax on this value added by a business firm. Technically it is the difference between output tax and input tax.

As input tax is adjusted against output tax under the VAT system, it is a multistage tax system with no double taxation. This distinguishes the VAT from other indirect tax systems. The VAT is, therefore, imposed on successive value added at every stage of the chain of transactions until a good or service reaches the final consumer and the process of adding value ends. The total value of the goods or service is, however, subjected to tax once only due to adjustment of input tax at each stage of the chain of transactions.

2. Origin Principle or Destination Principle

A VAT is said to use the origin principle when it taxes value that is added domestically to all goods, including goods that are subsequently exported, but does not tax value that has been added abroad and is embodied in goods that are imported and sold domestically. It taxes all, and only, value that originate within the country. Exports are taxable, imports are exempt.

On the other hand, a VAT is said to use the destination principle when it taxes all value added, at home and abroad, to all goods that have as their destination the consumers of that country. Exports are exempt, imports are taxable (Shoup, 1990).

3. Computation of the VAT

The total of value added by all business firms is the value of total output of the economy. Since the total value of output equals total factor payments, the VAT can be considered to be a tax on income or a tax on total value of output. So the tax base for a VAT may be built up through two alternative methods: the output approach and the income approach (Shoup, 1990, Sullivan 1966).

(a) Income Approach

Under this approach value added is the sum-total of income of all factors of production. Therefore, the total value of salaries and wages, rents, interests, depreciation and profits gives us value added.

(b) Output Approach

In this approach value added is the aggregation of net output of all economic units. Net output, in this case, means gross receipts or revenues minus the value of all purchased goods and services.

The VAT can be imposed, at least theoretically, on "value added" so computed. Income approach corresponds to the "addition method" whereas the output approach follows the "subtraction method" (Alam 1991a).

4. Operation of the VAT System

Operation of the VAT system in its conventional form, assuming a uniform rate of 10 per cent at all stages, is illustrated below.

Suppose an importer-cum-manufacturer imports raw materials having taxable value of $100 and the VAT paid is $10. The manufacturer processes the raw materials and sells finished products to a wholesaler at $300. Therefore, the output tax charged by the manufacturer would be $30 and the VAT paid to the government would be $20 after taking credit of $10 as "input tax". The wholesaler sells the products bought from the manufacturer to a retailer at $450. The "output tax" charged by the wholesaler would be $45, and the VAT paid to the government would be $15 after taking credit of $30 as "input tax". If the retailer sells the products bought from the wholesaler to a consumer at $500, the "output tax" charged by the retailer would be $50 and the VAT paid to the government would be $5 after taking credit of $45 as "input tax". Therefore, the ultimate "output tax" or the VAT realizable from the consumer amounts to $50, but it has been collected by the government in different stages.

5. Rating of the VAT

(a) Exemption and Zero Rate

"Tax exempt" sales refer to sales of goods and services which are exempted from taxation, and for which no credit of tax on purchases is allowed. Financial services are generally treated in this way. On the other hand, the aim of zero rating is to lift the entire VAT, including that already collected at earlier stages, from a particular good or service. For example, exports are universally zero rated.

(b) Single and Multiple Rates

The VAT can be employed either at a single rate or multiple rates. Many countries employ multiple rates as they offer greater opportunity to fit the VAT to various social and political ends. A low rate is sometimes granted for necessities and a higher rate than the standard is imposed on luxuries (Shoup 1990). When a single rate VAT is employed for all commodities, it is called neutral taxation. But the Ramsey tax rule points...
out that in general, neutral taxation is not efficient where demand elasticities are not the same (Rosen 1985).

6. Advantages and Disadvantages of the VAT

Advantages

The VAT is regarded as a modern and superior tax system. It is so regarded for the following advantages compared to other indirect taxes.

- Proponents of the VAT argue that it is economically neutral, because ideally it is levied at a uniform rate on the entire consumption base.
- The VAT is comprehensive as it expands the tax base. It applies to all goods and services except those which are specifically exempted or kept outside in the scope of the time being (Alam 1991a).
- Tax evasion is less in the VAT system. The VAT is imposed at various stages. At each stage, therefore, the burden of tax would not be excessive so as to make it profitable to evade the VAT.
- Vousden (1990) argued that a consumption tax is a more efficient tool for raising revenue than any other indirect tax. The VAT is usually a consumption tax and is elastic as a tax system. So this increases revenue yield substantially because of the increased coverage.
- The VAT is simple for tax-payers, tax-assessors and consumers. It is easy to collect as the tax is collected at various stages, and tax payers can avoid their cash flow problems. It is easy to calculate as the tax is based on an actual price i.e. invoice of goods and services.
- The VAT avoids the cascading effects as the value added at each stage is taxed only once. Thus the VAT does not have any trade distortion and possible inequality imposed by a greater burden of tax on products which pass through more stages.
- In pointing out the advantages of the VAT over the RST, Shoup (1973) has argued that failure to impose a tax at the retail level under the RST implies total loss of revenue. In contrast, with a VAT, failure to remit tax at the retail level will not produce a total loss of revenue since a large portion of the tax will have already been collected at the pre-retail levels of business operation (Thirsk 1991).

Disadvantages

Despite having the above advantages, the VAT is not free from its limitations. It has the following disadvantages:

- Opponents of the VAT argue that the VAT, like any other consumption-based revenue source, is inherently regressive. Those least able to pay face the highest overall burdens. Because it is believed that the VAT is a broad based tax levied on essential goods, and as such must be regressive.

* The VAT needs a formal economy where all economic units from importers to retailers document their transactions, and maintain accurate records. However, in developing countries, the informal economy covers substantial trading which is not documented and registered. Moreover, the low literacy rate may also result in poor compliance of the VAT Act and Rules. Therefore, the VAT in such countries may fail to achieve its objectives.

* From the perspective of equity and justice, necessities and small units are exempted from the VAT. Although this reduces administrative costs of the government and the burden of compliance on the small units, such exemption narrows the tax base, distorts the system and limits its success.

III. VAT in Bangladesh

As mentioned earlier, Bangladesh introduced the VAT as a radical reform in the indirect tax system. The then government tried to familiarise people with this new tax system and to make the reform successful. Before judging the success of this reform, some important issues should be discussed.

1. Revenue and Tax Structure of Bangladesh

Revenue Structure

Total internal resource generation of a country consists of tax and non-tax revenues. National performance, therefore, regarding mobilisation of internal resources may be assessed by relating the overall tax and non-tax revenue to national income and comparing these ratios over time. Table 1 gives a picture of the revenue structure of the country.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Revenue/GDP</th>
<th>Tax Revenue/Total Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>72/73-74/75</td>
<td>5.2</td>
<td>83.0</td>
</tr>
<tr>
<td>75/76-79/80</td>
<td>8.8</td>
<td>85.3</td>
</tr>
<tr>
<td>80/81-84/85</td>
<td>9.2</td>
<td>84.0</td>
</tr>
<tr>
<td>85/86-87/88</td>
<td>9.0</td>
<td>83.9</td>
</tr>
<tr>
<td>88/89-90/91*</td>
<td>9.3</td>
<td>83.3</td>
</tr>
</tbody>
</table>

Source: Chowdhury and Hossain 1988-87 (For 72/73-87/88 data)

As indicated, the revenue-GDP ratio rose from a low of 5.2 per cent in the early seventies to 8.8 per cent in the late seventies and then increased only marginally and remained at less than 10 per cent even in 1988/89-
Also tax receipts accounted, as Table 1 shows, for more than eighty per cent of the total revenue earning of the country during this period. Thus, it is evident that the internal resource generation effort of the country is low and the lion’s share of it is borne by the tax revenue.

**Tax Structure**

Broadly taxes can be divided into direct and indirect taxes.

**Direct Tax**

Direct tax in Bangladesh comprises taxes on income and taxes on property. Table 2 shows that the percentage of direct tax in total tax revenue increased from 16.5 per cent in the early seventies to 22.70 per cent in 1988/89-90/91.

About 75 per cent of the total income tax in recent years came from taxes on companies (Finance Minister’s Budget Speech, 1982/83 Annual Budget). Therefore, revenue earnings from the individual income tax have been very low. The major reason for such a low tax collection from individual income tax is the very narrow tax base. Less than 0.5 per cent of the population are covered in the tax net (Chowdhury and Hossain 1988).

**Indirect Tax**

Although the contribution of indirect taxes as a proportion of total tax yield has been declining over the years, it still bears the lion’s share in overall tax receipts of the country by accounting for more than three quarters of the overall tax yield. Indirect taxes may broadly be divided into taxes on domestic goods and services and taxes on foreign trade.

**Taxes on Domestic Goods and Services**

Table 2 shows that the share of the taxes on domestic goods and services remained stable around a quarter of total tax revenue after falling from a high of 39.6 per cent in the early seventies. The sales tax on domestic goods does not exist any more. In fact, as Table 2 shows, excise taxes accounted for almost the entire revenue yield from this source which stands at a quarter of total tax receipts of the country.

Another interesting feature of taxes on domestic goods and services is that only a few items generate the total tax yield for excise taxes. In fact, only four items, namely, tobacco, petroleum, petroleum gas and jute manufacture accounted for more than 70 per cent of total excise tax yield of Bangladesh in 1984/85. These findings thus clearly indicate that taxes on domestic goods and services are low and the base is also very narrow (Chowdhury and Hossain 1988).

**Taxes on Foreign Trade**

Foreign trade tax has continued to play a dominant role in the tax structure of Bangladesh over the years. Table 2 shows that it has accounted for more than 50 per cent of the total tax yield of the country in recent years.

1. **Necessity of Tax Reform in Bangladesh**

   For socio-economic and infrastructural development of Bangladesh, the importance of an increase in domestic revenue is well recognised. Since more than 80 per cent of total revenue comes from taxes, restructuring the tax system by introducing the VAT was thus critical.

   Bangladesh relies heavily on trade taxes. But studies of the tax structure of certain developing countries suggest that the economic costs of trade taxes are much higher than domestic consumption taxes. The trade taxes lead to the creation of inefficient domestic industries by penalising exports (Hossain 1991a).
The tax structure (before introducing the VAT) was inelastic--unresponsive to the growth in overall economic activity. Taxes on agricultural incomes and property incomes are negligible and poorly administered.

Therefore, in order to ensure self-reliant growth and reduce external dependence, the domestic resource mobilisation efforts in Bangladesh have to be geared up. Although tax revenues account for more than 80 per cent of total revenue in Bangladesh, the tax effort i.e. tax- GDP ratio in Bangladesh was only 7.2 in 1985-86 (Chowdhury 1990:9) which is far from satisfactory, from the point of view of tax collection, even by an Asian standard.

So to keep pace with the ever growing public expenditure (which is required to meet public needs) and make the resources available for development efforts, there is no substitute for a comprehensive tax reform. Such a reform should aim at raising revenue as well as eliminating the tax induced distortions in the structure of the economy. The introduction of the VAT is the central-piece of this reform effort.

3. Why the VAT is Preferred for Bangladesh

The reasons for preferences of the VAT for Bangladesh are: it has more advantages than disadvantages compared to other taxes. Moreover, the tax-structure prior to July 1981, in Bangladesh was highly defective which is, more or less, discussed above. Tax evasion was widespread particularly among the rich. The tax structure was also discriminatory against export and biased towards inefficiency. The tax system was also inequitable, and there were large scale allegations of corruption.

Moreover, there was more than one rate in the tax system which would result in economic inefficiency and administrative complexity. The cascading effect of the indirect taxes would increase production costs, induce the producers to evade taxes and generate some problems which have been discussed earlier. It would also reduce the consumer's welfare through the price-rise.

Therefore, due to intrinsic problems of the indirect tax system, revenue collection of the government was never satisfactory. To overcome this deficiency and to make the indirect tax system more dynamic and fruitful, the VAT has been introduced.

4. The Salient Features of the VAT in Bangladesh

Policy Issues
Consumption Type, Destination Principle and Invoice Method

The VAT introduced in Bangladesh is of the consumption type under which the VAT amounts to a tax on consumer goods only, thus leaving out capital goods. With regard to the regime for international trade, the destination principle has been adopted under which a VAT taxes all value added, at home and abroad in relation to goods that have as their destination the consumers of Bangladesh. In respect of the method by which a tax paying firm computes its tax liability the invoice or tax credit method has been adopted in Bangladesh in view of its compatibility with a consumption destination type of the VAT.

Import-cum-manufacturing and Services

With regard to the tax on goods, the VAT in Bangladesh is restricted to the import and manufacturing stage since the accounting system at the other levels of operation is weak. Certain selected services (mentioned in the 2nd schedule to the VAT ACT, 1991 where financial services are not included) have also been brought under the VAT system.

Single Rate

The VAT in Bangladesh is levied at a single positive rate of 15 per cent. However, tax-payers whose annual turnover is lower than Taka 1500000 pay a turnover tax at 2 per cent instead of a VAT at 15 per cent. In addition, supplementary duty at 10 per cent to 85 per cent is imposed on specific luxuries, unnecessaries and socially undesirable goods and services. It is zero rated for goods exported. In addition, all input taxes, if inputs are used for exported commodities, would be rebated.

Exemptions and Exclusions

Some specific imported commodities, specific excisable goods and services, agricultural insecticides and pesticides, books, newspapers, journals, periodicals, yarn and textiles, educational items, scientific equipment imported by educational institutions, aluminium utensils, primary agricultural produce and mulling of rice, wheat and pulses are exempt from the VAT.

Treatment of Small Firms

In Bangladesh, for administrative and record keeping reasons, small firms have been kept outside the purview of the VAT. Specific industries with installed capital machinery valued at Taka 300000 or below are exempt from the VAT.

Operational Issues
Taxability

Except those goods and services specifically exempted by notification, all imported or domestic goods and all services are subject to the VAT. In the case of imports, the importer and in the case of domestic supply, the manufacturer-supplier is liable to pay the VAT. In the case of a service, it is the service supplier who is liable to pay the VAT (VAT ACT 1991).
Value Added Tax and its Application

Time and Manner of Payment
At the import stage, the VAT is leviable and payable before the clearance of the imported goods from customs. In the case of domestic supply, although the payment of the VAT takes place at the time of clearance of the goods from the production premises (Rules 23 of the VAT Rules 1991), the liability could be born earlier (section 6(2) of the VAT ACT, 1991). Similarly, although the liability is generated earlier (section 6(3) of the VAT ACT 1991), the VAT on services can be deposited into the treasury any time before the submission of the monthly return.

Input Tax Credit
A registered tax-payer is eligible to take instant credit of the VAT paid on inputs against the VAT payable on outputs (section 9 of the VAT ACT 1991). For access to the credit against the VAT on domestic supplies or services, one needs to have in his possession the VAT paid invoice in the case of domestically produced intermediate inputs/raw materials and the Bill of entry in the case of imported inputs (Rule 20 of the VAT Rules 1991).

Registration
Unless exempted by notification, all domestic producers, manufacturers, specified service-suppliers, importers and exporters who make a taxable supply of goods and services are required to register with the VAT office, and obtain a VAT Registration number which is to be used for all VAT purposes.

5. Economic Effects of the VAT
The performance of the old tax system was not at all satisfactory from the revenue point of view. While increased revenue is ever demanding for infrastructural, social and institutional development of this poor country, the tax-GDP ratio is only half of our neighbouring countries (in India, Pakistan and Sri Lanka, the tax-GDP ratio is 17, 14 and 15 per cent respectively). So though the purpose of introducing the VAT is overall reform of indirect taxation, the main objective of the government is to raise the revenue maintaining possible equity and efficiency of the taxation. The various effects of the VAT are discussed below.

a. Revenue Effect
The VAT has been acclaimed as a money machine. Most of the countries introducing the VAT have achieved remarkable success in internal resource mobilisation. In India revenue growth was 28.5 per cent in the first year of the introduction of MODVAT compared with 12 per cent in the year before. In Indonesia revenue collection just doubled during the first year of introduction of the VAT (Rousain 1991b). In Argentina, Chile, Costa Rica and Korea, the ratio of revenue to GDP grew by at least 50 per cent during the first three years of the VAT adoption, compared with revenue from the indirect taxes replaced by the VAT (Gillis et al. 1990). The VAT in the UK was raising 19 per cent of central government revenue from taxation by 1982-83 (Sandford 1986). An all pervasive tax base and efficient system of administration and direction helped to increase revenue substantially.

In Bangladesh, the VAT is also proved to be revenue augmenting.

Table 3 gives a clear picture.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales tax/VAT</td>
<td>5359</td>
<td>5059</td>
<td>5318</td>
<td>10141</td>
<td>11165</td>
<td>28661</td>
<td>40650</td>
</tr>
<tr>
<td>ii. On imports/Exports</td>
<td>5359</td>
<td>5095</td>
<td>5318</td>
<td>10141</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. On locally manufacturing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2002</td>
<td>8987</td>
<td>10350</td>
</tr>
<tr>
<td>iii. Import</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7892</td>
<td>15328</td>
</tr>
<tr>
<td>iv. Supply</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1271</td>
<td>4364</td>
</tr>
</tbody>
</table>

BE-Budget Estimate

Table 3 shows that tax revenue has increased about 3 times in 1992-93 and 4 times in 1993-94 compared to 1990-91. The VAT on imports as well as local manufacturing is increasing every year at a respectable rate.

b. Price Effect
The VAT can lead to a once and for all increase in prices if more revenues are desired but there is nothing inherently inflationary about the VAT. A study on international experience conducted by Alan Tait of the IMF shows that out of 31 countries, there was no price increase at all in 21 countries. In the rest of the countries, there were one time price increases (Raboy 1989).

It is very difficult to find out how much price has increased. In Bangladesh, due to the VAT. An in-depth study is required for this purpose. However, 5 per cent and 4.5 per cent inflation rates in 1991-92 and 1992-93 respectively in Dhaka city compared to 9.3 per cent and 6.3 per cent in 1989-90 and 1990-91 (SYB 1994: 415) respectively indicate no adverse effect of the VAT on domestic price level. Another way of finding
the effects VAT on price level is to compare the consumer price indices (CPI) before and after the introduction of VAT. For this purpose, CPI for middle income group of Dhaka city and CPI for rural families at Dhaka are taken into consideration. Table 4 and 5 indicate the situation.

### Table 4

**Annual Average Consumer Price Indices for Middle Income Group at Dhaka City**  
(Base: 1973-74 = 100)

<table>
<thead>
<tr>
<th>Year</th>
<th>Food</th>
<th>Rate of change</th>
<th>Clothing and footwear</th>
<th>Rate of change</th>
<th>General index</th>
<th>Rate of increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>88-89</td>
<td>566</td>
<td>--</td>
<td>348</td>
<td>--</td>
<td>579</td>
<td>--</td>
</tr>
<tr>
<td>89-90</td>
<td>606</td>
<td>7.07</td>
<td>374</td>
<td>7.47</td>
<td>633</td>
<td>9.33</td>
</tr>
<tr>
<td>90-91</td>
<td>648</td>
<td>6.93</td>
<td>399</td>
<td>6.68</td>
<td>689</td>
<td>8.85</td>
</tr>
<tr>
<td>91-92</td>
<td>684</td>
<td>5.56</td>
<td>410</td>
<td>2.76</td>
<td>724</td>
<td>5.08</td>
</tr>
<tr>
<td>92-93</td>
<td>676</td>
<td>-1.17</td>
<td>422</td>
<td>2.93</td>
<td>734</td>
<td>1.83</td>
</tr>
<tr>
<td>93-94</td>
<td>679</td>
<td>0.44</td>
<td>431</td>
<td>2.13</td>
<td>747</td>
<td>1.77</td>
</tr>
</tbody>
</table>

*Source: BBS, SYB, 1995: 435*

### Table 5

**Consumer Price Index for Rural Families at Dhaka**  
(Base: 1973-74 = 100)

<table>
<thead>
<tr>
<th>Year</th>
<th>Food</th>
<th>Rate of change</th>
<th>Clothing and footwear</th>
<th>Rate of change</th>
<th>General index</th>
<th>Rate of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>88-89</td>
<td>449</td>
<td>--</td>
<td>830</td>
<td>--</td>
<td>480</td>
<td>--</td>
</tr>
<tr>
<td>89-90</td>
<td>463</td>
<td>3.12</td>
<td>936</td>
<td>12.77</td>
<td>510</td>
<td>6.25</td>
</tr>
<tr>
<td>90-91</td>
<td>493</td>
<td>6.48</td>
<td>1025</td>
<td>9.51</td>
<td>556</td>
<td>9.02</td>
</tr>
<tr>
<td>91-92</td>
<td>526</td>
<td>6.69</td>
<td>1082</td>
<td>5.56</td>
<td>591</td>
<td>6.29</td>
</tr>
<tr>
<td>92-93</td>
<td>516</td>
<td>-1.90</td>
<td>1120</td>
<td>3.51</td>
<td>593</td>
<td>0.34</td>
</tr>
<tr>
<td>93-94</td>
<td>526</td>
<td>1.94</td>
<td>1151</td>
<td>2.77</td>
<td>606</td>
<td>2.19</td>
</tr>
</tbody>
</table>

*Source: BBS, SYB, 1995: 436*

Both the Tables show that rates of increase of CPI are much lower in post-VAT periods compared to pre-VAT periods. To examine the price effects of VAT from the point of view of groups of commodities, indices of wholesale of agricultural and industrial products have been considered. Table-6 gives the picture.

### Table 6

**Indices of Wholesale Price of Agricultural and Industrial Products of Bangladesh**  
(Base: 1969-70 = 100)

<table>
<thead>
<tr>
<th>Period</th>
<th>Agri. Products</th>
<th>Rate of increase</th>
<th>Indust. Products</th>
<th>Rate of increase</th>
<th>All Groups</th>
<th>Rate of increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>88-89</td>
<td>1175</td>
<td>--</td>
<td>1034</td>
<td>--</td>
<td>1129</td>
<td>--</td>
</tr>
<tr>
<td>89-90</td>
<td>1276</td>
<td>8.60</td>
<td>1118</td>
<td>8.12</td>
<td>1225</td>
<td>8.5</td>
</tr>
<tr>
<td>90-91</td>
<td>1297</td>
<td>1.65</td>
<td>1233</td>
<td>10.29</td>
<td>1276</td>
<td>4.16</td>
</tr>
<tr>
<td>91-92</td>
<td>1333</td>
<td>2.77</td>
<td>1303</td>
<td>5.68</td>
<td>1323</td>
<td>3.68</td>
</tr>
<tr>
<td>92-93</td>
<td>1353</td>
<td>1.50</td>
<td>1331</td>
<td>2.15</td>
<td>1346</td>
<td>1.74</td>
</tr>
<tr>
<td>93-94</td>
<td>1437</td>
<td>6.21</td>
<td>1361</td>
<td>2.25</td>
<td>1413</td>
<td>4.98</td>
</tr>
</tbody>
</table>

*Source: BBS, SYB, 1995: 427*

Table 6 also shows that the rate of increase of indices of wholesale price of industrial products is lower in post-VAT periods though it shows slightly different picture in 1993-94. The rate of increase of indices of wholesale price of agricultural products in post-VAT periods show inconclusive trend. This may be due to the fact that agricultural commodities have been kept outside the purview of the VAT. However, it is noted that price could rise for reasons other than the VAT as well. For example, expansionary wage and credit policies are often associated with a price-rise.

c. Effects on Equity, Efficiency and Neutrality

As mentioned earlier, the VAT is a proportional tax to lifetime income. Even if it is considered as regressive, this regressive effect can be reduced by applying a zero rate to products with a higher weight in the consumption basket of low income groups. Equity can be maintained by exempting necessities and small units from the VAT. In Bangladesh, for example, wholesalers, retailers and firms whose annual sale is less than Taka 1.5 million are exempt from the VAT. For egalitarian reasons, supplementary duties at different rates are imposed on luxuries in addition to the VAT.

Equity of VAT can also be examined by comparing the trend of CPI of rural-urban population after the introduction of VAT. Table 4 and 5 show that the rate of increase of CPI of middle income group at Dhaka city and that of rural families at Dhaka have the similar trends in post-VAT periods in Bangladesh. So the VAT in Bangladesh does not adversely affect the consumption pattern of any particular group and hence it is equitable. However, equity of VAT from the point of view of vertical income groups could not be examined due to data limitation.
The ideal VAT is also an efficient tax precisely because it does not distort consumer choice. Removing the cascading effect, the VAT actually keeps the price of the goods and services lower and thus increases the consumers' welfare. In a study on the U.S., Ballard et al. (1985) show that the VAT has the lowest marginal social cost (Tait 1988).

The VAT in Bangladesh is levied at a uniform rate of 15 per cent. Although a few goods and services are exempted from the VAT for equity reasons, it could be argued that the VAT in Bangladesh generally bears high marks of neutrality.

d. Effects on the Balance of Trade

A destination based VAT requires a border tax adjustment, which levies the VAT on imports and rebates the VAT on exports. This border tax adjustment is commonly perceived as providing a trade advantage, but this adjustment does not improve the balance of trade.

Apparently, it seems that taxing imports and exempting exports would create a cost advantage for domestic industries that would in turn improve the balance of trade. However, this apparent cost advantage resulting from border tax adjustments would be quickly offset by an adjustment in the exchange rate if changes in other macroeconomic policies do not occur.

The balance of trade of Bangladesh has been shown in Table 7. The table shows that the balance of trade does not differ significantly before and after the introduction of the VAT, though it is slightly better in 1990-91, 1991-92 and 1992-93 compared to 1989-90. This suggests that appropriate changes in macroeconomic policies are required to have the benefit on the balance of trade from VAT and for this purpose, further research is essential.

<table>
<thead>
<tr>
<th>Year</th>
<th>Export</th>
<th>Import</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-89</td>
<td>4858.6</td>
<td>9507.5</td>
<td>-5238.9</td>
</tr>
<tr>
<td>1989-90</td>
<td>5141.5</td>
<td>11330.5</td>
<td>-6189.0</td>
</tr>
<tr>
<td>1990-91</td>
<td>6027.2</td>
<td>11187.7</td>
<td>-5160.5</td>
</tr>
<tr>
<td>1991-92</td>
<td>7419.8</td>
<td>13275.6</td>
<td>-5855.8</td>
</tr>
<tr>
<td>1992-93</td>
<td>8821.5</td>
<td>13819.8</td>
<td>-4998.3</td>
</tr>
</tbody>
</table>

Source: BBS, SYB, 1995: 301

e. Effects on Investment and Economic Growth

The VAT has increased revenue in Bangladesh and this increased revenue could be used to reduce the fiscal deficit, reduce the public sector borrowing requirement, allow interest rates to fall and thus stimulate investment. Investment will be further increased as capital goods are exempted from the VAT in Bangladesh. This resulting increase of investment will in turn accelerate economic growth. Table 8 shows investment situation in Bangladesh.

<table>
<thead>
<tr>
<th>Year</th>
<th>Invest</th>
<th>Priv</th>
<th>Pub</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989-90</td>
<td>94427</td>
<td>95955</td>
<td>109851</td>
<td>135314</td>
</tr>
<tr>
<td>1991-92</td>
<td>158937</td>
<td>194651</td>
<td>221200</td>
<td></td>
</tr>
<tr>
<td>1992-93</td>
<td>74506</td>
<td>80676</td>
<td>110172</td>
<td>139343</td>
</tr>
<tr>
<td>1994-95</td>
<td>60808</td>
<td>78251</td>
<td>84479</td>
<td>81577</td>
</tr>
</tbody>
</table>

Source: BBS, SYB, 95: 459

It is observed from the Table 8 that investment in Bangladesh is increasing over the years, and the rate of increase is higher in post-VAT periods than pre-VAT periods. For example, the rate of increase of investment was only 1.6 per cent in 1990-91 against 23.0 per cent in 1992-93 and 22.5 per cent in 1994-95. However, the VAT is not the only contributor to this increased investment. There are many factors like interest rate, government policy, etc., which work behind this success. A detailed study is certainly needed to see the net effect of VAT on investment. Nevertheless, this study finds a positive correlation between VAT and investment.

IV. Summary and Conclusion

In the light of the above discussion, it can be safely argued that the VAT is certainly a better alternative to the traditional excise duty and turnover tax. Its advantages outweigh the disadvantages. It is more comprehensive, yet simpler and transparent. Its neutrality with respect to consumer choices and producer decisions is better for the more efficient allocation of resources.

The introduction of the VAT has brought respectable positive results in various countries of the world. Despite some administrative problems during the initial stages, its introduction has very successfully augmented revenue. It has helped overcome the harmful effect of the various distortionary features in the old taxation system.

However, an ideal VAT should be universal, extending to the retail stage and to virtually all sectors of the economy including services, with possible minimum exemptions. Only a comprehensive and uniform coverage can guarantee the full benefit of a truly neutral tax and minimum administrative complexity (Jinjan 1988).

In Bangladesh, the old revenue and tax structure was very disappointing, especially with regard to revenue collection. So the introduction of the VAT, an effective tax system, is the most significant development in this
respect. In spite of some problems (e.g., absence of adequate record keeping, dishonesty of tax payers and tax-collectors) in implementing the VAT properly in Bangladesh, the VAT would prove the best alternative for purpose of revenue collection. The VAT in Bangladesh is found as a revenue augmenting tool. The study also shows that a positive correlation exists between the VAT and the investment, and there is no adverse effect of the VAT on domestic price level. However, the degree of actual contribution of the VAT on domestic investment and price level could form subject matter of further enquiry.

As a single rate is applied, the VAT in Bangladesh is neutral. It is also found equitable. For administrative reasons, some small firms, wholesalers and retailers are exempted from the VAT at the moment. But in order to obtain the maximum revenue benefits, the base for the VAT should be broadened gradually. The 1997-98 proposals in this respect may be termed as a step in the right direction.

In fact, the VAT is a better system of taxation. Its long term benefit will outweigh the short-term difficulties and it will contribute positively to economic growth. Properly implemented, it is also likely to make the goods and services cheaper by eliminating the cascading effects of the turnover tax. However, there are misapprehensions in peoples' mind about VAT. To alleviate these apprehensions the education programme needs to be further extended and enforced. Radio, television, seminar and workshop can also play very important role in this regard.

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