

**Consumption Taxes in Developing Countries –
The Case of the Bangladesh VAT**

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Abstract

In common with many developing countries, Bangladesh faces problems in raising sufficient tax revenues to fund its economic and social development. To address this problem and to improve economic efficiency and growth, a major tax reform program was initiated in 1991 which centred on the introduction of a valued-added tax (VAT) to replace a range of narrowly-based consumption taxes.

This paper revisits the basic structure of VAT system of Bangladesh and attempts to analyse the contribution and performance of VAT in Bangladesh as compared to other developing countries and also attempts to identify and provide some suggestions in possible areas where attention and improved performance are required to enhance the contribution of VAT in economic development of Bangladesh.

The relevant data shows that the performance of VAT was quite satisfactory in the initial years - but subsequently VAT collection has remained stagnant at a certain level. As a result, VAT is unable to meet the objectives for which it was introduced. The reasons behind this performance are many, such as: a relatively small number of VAT tax-payers, a general lack of awareness, and a weak monitoring system etc. There is still scope for improving the revenue collection from VAT: by increasing the number of VAT taxpayers; reforming the VAT administration; creating intensive awareness among the people, revisiting the list of VAT exempted items and increasing the efficiency of the monitoring system.

JEL classification: E63 [H – Public Economics]

Keywords: Value added tax, direct tax, indirect tax

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I. INTRODUCTION

In common with many developing countries, Bangladesh faces problems in raising sufficient tax revenues to fund its economic and social development. To address this problem and to improve economic efficiency and growth, a major tax reform program was initiated in 1991 which centred on the introduction of a valued-added tax (VAT) to replace a range of narrowly-based consumption taxes.

The objective of this paper is to review the performance of the Bangladesh VAT regime since its introduction in July 1991 using a legal analysis of the Bangladeshi VAT law and an economic analysis based on statistical data. The results obtained from these analyses are also used to identify areas where reforms are desirable to enhance the contribution of VAT in economic development of Bangladesh.

II. THE ORIGINS AND DEVELOPMENT OF THE VAT

The origins of the VAT can be traced back to the writings of a German economist F Von Siemens, who proposed the VAT in 1918 as a substitute for the then newly established German turnover tax. The development of these proposals into the introduction of a VAT in a state is credited to Maurice Faure and Carl Shoup who were responsible with the introduction in France in 1954 of the *Taxe sur la Valeur Ajoutée*.¹ Since then over 100 countries have introduced some form of VAT –the only OECD country not to have done so is the United States.

¹ Islam, R; *Structure, Administration of VAT in Bangladesh with Special Reference to Evasion Control and measurement of VAT potential*, Retrieved December 10, 2007, from www.nbr-bd.org/nbrweb/vat/vat_1.pdf at page 1.

VATs have become the most common type of consumption tax for a variety of reasons. Unlike income taxes, VATs do not distort consumption-savings/investment decisions.² Because sellers can claim a credit for VAT paid on their inputs, there is no cascading of taxes as can occur with other consumption taxes. The tax is often regarded as “self-policing” as it is imposed on every transaction throughout the production process reducing revenue losses should one party fail to collect VAT. It is also neutral between the domestic production and imported goods when compared to an import tariff.³ It has been widely recognised that a well designed VAT can raise significant amounts of revenue on a stable and sustainable basis and the decision to introduce a VAT has often been made for these reasons.⁴

A commonly cited disadvantage of VATs is that they can be regressive in nature being a problem which can arise with most types of indirect tax. A single rate VAT applied to the broadest possible base becomes essentially a proportional tax on consumption and therefore regressive.⁵ Often to address this problem of regressivity, multiple rates of VAT are offered along with a range of exemptions even though such provisions have a negative impact on the effectiveness and efficiency of VAT. Exemptions inevitably make the VAT narrower and for this reason are commonly limited to basic foods, health and education

² Le, T M; Value Added Taxation: Mechanism, Design, and Policy Issues, Paper prepared for the *World Bank Course on Practical Issues of Tax Policy in Developing Countries*, April 28- May 1, 2003, Washington, DC at page 8.

³ Bird, R and P Gendron; Is VAT the Best Way to Impose a General Consumption Tax in Developing Countries, *ITP Paper 0602*, International Tax Program, Institute for International Business, Joseph L. Rotman School of Management, University of Toronto, Toronto, Canada, 2006, at page 5.

⁴ Hossian, S M; The Equity Impact of the Value-Added Tax in Bangladesh. *Staff Papers*, Vol. 42, No. 2, June 1995, International Monetary Fund, Washington DC.

⁵ Ebrill, L; Keen, M; Bodin, J and Summers, V, *The Modern VAT*. International Monetary Fund, Washington DC, 2001, at page 106.

services. Exemptions, however, increase cascading and by breaking the VAT chain can make effective enforcement more difficult.⁶

Regressivity is usually a greater issue for developing countries where a large proportion of the population lives in poverty. For this reason, many developing countries have adopted multiple VAT rates with the lower rates applying to necessities such as food and utilities as well as exempting a wide range of goods and services to promote greater progressivity.⁷ Empirical studies into VAT adopted in developing countries have shown that such measures do address the problems of regressivity and make the tax more progressive.⁸

The introduction of a VAT in a developing country has its own challenges.⁹ They are usually introduced in developing countries as part of an economic liberalisation programme involving reductions in tariffs often at the recommendation of international advisory bodies such as the IMF or World Bank. In order to maintain adequate tax revenues, many developing countries have found it necessary to retain excise taxes to offset revenue losses from tariff reductions and also for social purposes. This has resulted in the VAT being an additional tax impost rather than a replacement for existing taxes leading to greater complexity for businesses.

Obtaining compliance with VAT laws in a developing country can be a challenge especially where there is a large informal sector.¹⁰ In most developing countries the majority of VAT collected is from imports with the remainder collected from a few large taxpayers

⁶ Bird, R M; Value Added Taxes in Developing and Transitional Countries: Lessons and Questions, ITP Paper 0505, *First Global International Tax Dialogue Conference on VAT*, Rome March 15-16, 2005, at page 21.

⁷ Jantscher, M; Problems of Administering a Value-Added Tax in Developing Countries: An Overview. *Discussion Paper No. DRD 246*, World Bank, Washington DC, 1987, at page 4.

⁸ Jantscher (1987) at p 15.

⁹ For a detailed review of some of these problems refer Bird, R; Value-Added Taxes in Developing and Transitional Countries: Lessons and Questions, ITP Paper 0505, *The First Global International Tax Dialogue Conference on VAT*, Rome, March 15-16 2005.

¹⁰ Bird (2005) at p 9.

which reflects difficulties with compliance and enforcement experienced in developing countries.¹¹ Therefore to widen the scope of VAT, a special VAT regime often has to be introduced for small businesses in developing countries which may not be necessary in developed economies.¹²

The adoption of a VAT is often seen as an opportunity in many developing countries to modernise tax administration which may reflect the influence of international financial organisations (such as the IMF, World Bank) in the decision to introduce a VAT. Many developing countries, however, find the VAT more difficult to administer than initially thought and problems with administration and enforcement often undermine the effectiveness of the VAT.¹³

Another problem experienced with VATs in developing countries is the payment of VAT refunds.¹⁴ The provision for registered taxpayers to receive refunds is a key feature of the VAT, however, this has been problematic issue for many developing countries for several reasons including inefficient processing, a reluctance of revenue officials to refund taxes already paid and concerns about fraudulent claims. Self-assessment by taxpayers under a VAT regime is also a problem in many developing countries as self-assessment systems must be backed up by regular audits to ensure compliance and prevent evasion. Many developing countries find it difficult to undertake an effective audit programme to combat VAT evasion resulting in VATs in many developing countries not meeting their full potential.¹⁵

¹¹ Jantscher (1987) at p 3. Subsidiaries of foreign multinationals are more likely to place importance on compliance with host country laws (to avoid political risks and penalties) and also are likely to be able to access appropriate resources (e.g. skilled staff) to enable compliance.

¹² Jantscher (1987) at p 3.

¹³ Bernardi, L; Gandullia, L and Fumagalli, L; *Tax Systems and Tax Reforms in South and East Asia: Overview of Tax Systems and Main Policy Issues*, MPRA Paper No. 1869, University of Munich, 2005, at page 14.

¹⁴ Le (2003) at p 43.

¹⁵ Bird (2005) at p 25.

III. THE BANGLADESH VAT REGIME

Bangladesh is highly populous country with current estimates of its population being around 150 million. However with limited land area has it has a population density of around 1,045 persons per sq. km (or 2,706 persons per sq mile). It is the seventh most populous country in the world and has the ninth highest population density. Ignoring small city states and such Monaco and Singapore, Bangladesh is the most populous country in the world.

Bangladesh falls within the category of “least developed countries” by the UN and has an estimated GDP per capita (purchasing power adjusted) of US\$1,389 per person compared to a world average of US\$10,400, which places it 153rd in the world based on IMF 2008 figures. Illiteracy is a problem with estimates by the United Nations Development Programme of adult literacy rates being around 48%. About 48% of the population is employed in the agricultural and primary sectors.¹⁶ Bangladesh is dependent upon a limited range of exports namely textiles and garments (75%) and jute. Despite these disadvantages, Bangladesh has experienced reasonable levels of economic growth (by developing country standards) over the past two decades and with a corresponding reduction in poverty levels.

A. Key Features of Bangladesh’s VAT Regime

The Bangladeshi VAT came into effect on 1 July 1991 after the enactment of the Value Added Tax Act on 2 June 1991 (Ordinance 26 of 1991) replacing a range of existing sales and excise taxes.¹⁷ A number of objectives were sought from its introduction in Bangladesh in 1991 including: (a) bringing greater transparency to the taxation system; (b) reducing the cascading (taxing on tax) of consumption taxes; (c) the consolidation of tax administration; (d) promotion of economic growth by promoting better use of domestic

¹⁶ Bangladesh Bureau of Statistics, Economic Census 2005-06, Dhaka.

¹⁷ For an overview of the Bangladesh VAT regime refer Ahmed, M, Bangladesh Overview of VAT, *Asia-Pacific Tax Bulletin*, November-December 2003, pp 254-274.

resources; and (e) bringing greater stability to tax revenues e.g. shifting tax collection dependency from import to other bases.¹⁸

VAT was introduced in Bangladesh in several stages and only extended to the wholesale and retail sectors in the last stage. A few selected items such as tobacco products, natural gas, petroleum products and some services (particularly financial services) have been kept outside the scope of the VAT.

The Bangladesh VAT regime incorporates two other taxes in addition to the VAT under the same legislative and administrative framework an arrangement which is not normally found in most other countries. While the VAT is comparable to those found in other countries, there is also a turnover tax (a form of sales tax without input credits), which applies on a *deminimis* basis and an excise type tax known as “supplementary duty”. This last tax has been included within the VAT Act for enforcement and administrative reasons but in other respects is effectively a separate tax. Because of these three taxes incorporated under one umbrella, the complexity of the VAT regime is much greater (if the three components are regarded as one tax regime) than that found with VATs found elsewhere.

The VAT part of the Bangladeshi VAT regime is a consumption type tax as opposed to income or gross product type tax and is levied on consumer goods only leaving out capital goods.¹⁹ VAT is imposed using the destination principle in Bangladesh - where exports are zero taxed and import and domestic goods and services are taxed at standard rate. Although Bangladesh follows the “destination principle” it is not done consistently as for example foreigners leaving Bangladesh with goods on which VAT has been charged by Bangladeshi-registered traders do not get a VAT refund at the point of departure.

¹⁸ National Board of Revenue, Ministry of Finance, Annual Report 1992-93, Dhaka.

¹⁹ One of the main arguments behind for leaving capital goods out of scope of VAT is to encourage industrialisation in Bangladesh. It must also be remembered that refunds are not available in all circumstances in Bangladesh if a trader has a net VAT credit for a period. Usually the credit has to be carried forward to the next VAT return.

VAT is imposed at the import, manufacturing, wholesale and retail levels on both goods and services at a uniform rate of 15% at the time of supply of taxable goods or services. In determining the VAT liability, tax paid on inputs is creditable against output tax. VAT returns are required to be submitted on monthly or in some cases on quarterly (e.g. brick manufacture) or biannually (e.g. hundred percent export oriented). All exports are zero-rated. Besides this zero-rate, there are other VAT rates enforced in Bangladesh which are termed “reduced rates” or “truncated rates”.

The tax-base for VAT in Bangladesh is the difference between the value of outputs and the value on which input tax has been paid.²⁰ However, there are exceptions to this -in cases where the reduced rates or truncated rates apply a predetermined amount is considered as the value added and no specific credits are allowed. For taxable services, the assessable for imposition of VAT is “total receipt” which is defined as total amount of money, including commission or charge excluding the VAT or advance income tax imposed.

The Bangladeshi VAT applies to the supply of products and services in Bangladesh with a number of exemptions listed in the First and Second Schedules to the VAT Act. The list of exempted goods comprises mainly raw agricultural products and foodstuffs, which can be justified on grounds of being essentials especially in the context that a large proportion of the Bangladeshi work force is engaged in subsistence agriculture.

While the list of exempted services includes those which are commonly exempted (or subject to a low rate of VAT) in other countries such as medical, social and education services, financial services and transportation, in addition, there are exemptions for cultural and entertainment type services, trade and non-medical professional services which are not

²⁰ Rouf, M A; Value Added Tax: Theoretical Bangladesh Perspectives, *Fiscal frontiers - A journal of BCS (Custom and VAT) Association*, June 2009, at page 59.

usually exempted under other VAT regimes. The reasons for these exclusions are unclear but may reflect compliance difficulties in these sectors.

Taxpayers falling within the definition of “export and cottage industries”²¹ are exempt from VAT, although can they can register if they desire. In addition, taxpayers with a turnover less than Taka 2.4 million (US\$34,800 approx)²² in the previous 12 months are also exempt although some taxpayers with turnovers below this threshold are required to register if their businesses are in certain industry sectors.

Taxpayers who are not registered for the VAT are instead subject to a *turnover tax* of 4% of gross turnover in lieu of VAT without any input credits. Thus there is no threshold below which taxpayers are exempt from collecting some form of consumption tax unless the goods or services they sell are exempt. The turnover tax, however, is not a form of VAT and any turnover tax paid on inputs purchased by VAT-registered taxpayers cannot be claimed as a credit against VAT. Therefore the turnover tax could cascade especially if the taxpayer is an intermediate producer purchasing inputs from and selling outputs to VAT registered taxpayers although possibly not to large degree since the 4% rate is fairly low.

In addition to VAT and the turnover tax, Bangladeshi VAT regime also imposes a separate tax known as “supplementary duty” which is in nature an excise tax.²³ The goods to which the duty applies and the rates imposed are specified in the Third Schedule to the Act. The duty was imposed to maintain tax revenues when VAT was introduced,²⁴ to discourage the importation of luxury goods and to discourage the consumption of “socially undesirable goods” such as tobacco and alcohol. It also applies to an extensive range of food stuffs,

²¹ Defined as a unit with an annual turnover of less than Taka 2.4 million (US\$34,800 approx) and with capital machinery valued up to Taka 1.5 million (US\$21,800). US\$1 = 69 Taka at May 2010.

²² In May 2010 the exchange rate was approximately US\$1 = 69 Taka.

²³ It could also be argued it acts as a defacto customs duty because most of the products subject to the duty are imported.

²⁴ This is consistent with the earlier comment that excise taxes are often retained in developing countries when a VAT is introduced to ensure sufficient revenue.

building materials, cosmetics, clothing, motor vehicles and durable household items. It is likely that these goods are predominately imported and therefore the supplementary duty could be argued to act as a form of import duty especially in context of reductions in import duties when the VAT regime was introduced.²⁵ Since the introduction of the VAT regime in 1991, the range of products subject to this duty has been reduced as well as some rates of supplementary duty.

The basic rate of supplemental duty is 20% although in some instances it is up to 350% with the lowest rate being 5%. The duty is imposed in addition to VAT and is included along with the cost of the goods when calculating VAT. Supplementary duty paid on inputs cannot be claimed as an input credit for VAT purposes by purchasers –therefore there is a cascading effect. Because of the wide variation in the rates of supplementary duty and the relatively narrow categories of goods they apply to, the presence of the supplementary duty in the VAT regime must bring with it the administrative and enforcement problems associated with classification of goods for tax purposes where different tax rates apply. In its favour it can be argued the duty introduces greater progressivity in indirect taxation as most of the goods it applies to are unlikely to be consumed by most Bangladeshis.

B. Compliance Concessions

The Bangladeshi VAT regime contains a range of special provisions have been enacted to simplify compliance obligations mainly in respect of input credits either due to difficulties taxpayers may face in obtaining invoices for purchases in an economy which has a large informal sector or the risk of fraudulent claims for input credits.

²⁵ Sometimes excise taxes of this type are selectively imposed on products predominately imported to enable compliance with international obligations to reduce import tariffs but maintaining the revenue benefits of import tariffs.

One of these provisions is known as “truncated VAT” where taxpayers pay VAT on a net basis without credit for any VAT paid on inputs. These truncated VAT rates are compulsory for commercial importers and optional for retailers and wholesalers and for certain service providers; however, they cannot be used by manufacturers. There are four truncated VAT rates of 1.5%, 2.25%, 4.5% and 9% which assume valued-added by taxpayers of 10%, 15%, 30%, and 60% respectively. In case of wholesalers and retailers, the truncated rate of 1.5% is known as “trade VAT”. There is also “advance trade VAT” of 1.5% which applies to commercial importers when they on sell imported goods which is in addition to “basic import VAT” collected when the goods are imported. Thus the “advance trade VAT” of 1.5% is designed to be a proxy for the net value-added by the importer. The economic effect of these deemed input credit provisions is that the VAT has some features of selective sales or excise tax rather than a genuine VAT for many sectors of the Bangladeshi economy, as there is no connection between the VAT paid and the value added by them.

An unusual feature of the Bangladeshi VAT regime is “withholding VAT” where the purchaser is required to deduct VAT at source on certain inputs purchased and pay the VAT directly to the NBR on behalf of the supplier rather than the supplier receive the VAT and account for it themselves to the NBR. The supplier is still required to report the VAT withheld by the purchaser in their VAT return. These withholding obligations are imposed upon government and quasi-government organisations, NGOs and limited companies in respect of certain services.²⁶ This is provision is to prevent the underreporting by taxpayers of VAT charged and collected on their outputs.

²⁶ Payments for construction, printing, advertising, certain leasing, professional services (including accounting and audit), motor vehicle servicing are subject to this withholding VAT.

There are limited provisions for taxpayers to obtain refunds if their input credits exceed their output credits.²⁷ For the most part taxpayers with a credit balance have to carry it forward to the next return and offset it there. Only taxpayers who are in a “continuous credit” situation (mainly exporters) are able to claim refunds.

While the intention was for the VAT to replace excise duty, excise duty still applies on a limited range of items such as bank deposits and domestic air tickets on grounds that it is difficult to assign values to these outputs for VAT purposes. This excise duty is imposed under separate legislation outside the VAT regime. The excise tax on airline flights is a fixed amount per flight.

C. The VAT Rate

Bangladesh has adopted a single rate of VAT at 15%. However, with the turnover tax and truncated VAT rates effective VAT rates will differ from the standard 15% rate because the actual amounts of value-added and the amounts assumed with the truncated rates will not be the same. The regressivity of the single rate VAT is partly compensated with the extensive range of exemptions and the supplementary duty even though it is not strictly a VAT.

To address the problem of regressivity the Bangladeshi VAT exempts foodstuffs that are typically consumed by the poor such as rice, pulses etc. At same time imposing “supplementary duty” at a higher rate on certain luxurious and socially undesirable items makes the VAT system more equitable. A study on the equity impact of VAT in Bangladesh by Hossian²⁸ using a modeling approach showed that a single, uniform rate VAT applying to all commodities (as is the case in New Zealand) so that it was revenue neutral when

²⁷ It must be remembered that the Bangladesh VAT is not imposed on capital goods so that the usual reason for a refund being the purchase of capital items is not likely to arise.

²⁸ Hussian (1995).

introduced would be highly regressive resulting in wealthier people gaining while the majority of the population would be worse off.²⁹

D. VAT Administration

The National Board of Revenue (NBR) oversees the collection of all tax revenues including customs duty in Bangladesh. Within the NBR, VAT administration is grouped with Customs. As VAT replaced most excise duties and all sales taxes, the VAT administration was incorporated into the indirect taxation administration, whereas in most of the other countries VAT is administered separately from customs. In 2005-06, there were 5,328 persons employed in the area of indirect tax administration encompassing customs duty, VAT and turnover tax.

The appointment, promotion, training and transfer of VAT officials is conducted by Members of the Customs (administration) wing of the NBR. However, an official designated as Member (VAT) oversees the policy and implementation of VAT. The VAT wing is structured with seven commission level offices each of which are headed by a Commissioner of VAT. There are thirty Divisional offices, each of which is headed by an Assistant/Deputy Commissioner VAT and 110 Circle offices headed by a Superintendent of VAT.

The administrative cost of per 100 Taka collected of indirect tax was Tk 0.58 (0.58%) in the 2006-07 fiscal year³⁰ which is very low but consistent with the evidence from other countries that VAT is an inexpensive tax to collect.

²⁹ Islam (2007) at p 10.

³⁰ National Board of Revenue, Ministry of Finance, Annual Report 2006-07, Dhaka.

IV. PERFORMANCE OF VAT IN BANGLADESH

A. VAT Registrations

Effective enforcement and collection of VAT requires that taxpayers who have turnovers and/or assets above certain levels to be registered. If registration is not adequately enforced there will be significant evasion of VAT and taxpayers who are registered and comply with the VAT law will suffer a competitive disadvantage.

From the 2001-2003 economic census, the numbers of business units in the manufacturing and construction, banking and insurance, hotel trade sectors are as follows:

Table 1: Number of Establishments in Major Industries

Sector	Total Units
Manufacturing & Construction	657,770
Trade, Hotel & Restaurant	2,123,008
Finance, Insurance & Business Service	127,803
Community, Social & Personal Service	766,390
Total	3,674,971
Source: Economic Census 2001 & 2003, Bangladesh Bureau of Statistics, p-XLV	

Based on the estimated population in 2003 of 123 million, this gives an average of 33 persons per business unit. Taking into account that most of the population is engaged in subsistence agriculture (around 48%) and that the very young and very old are unlikely to be working, the average number of employees per business unit would be much lower which suggests that many of them would not have sufficiently large turnover (above US\$35,000 pa) to be liable for VAT registration especially given that nominal GDP per capita was around US\$400 in 2003.

The numbers of taxpayers registered for VAT in Bangladesh are shown in Table 2:

[Insert Table-2 here]

VAT-registered taxpayers in 1992-93 totaled 48,987; however, by June 2008 this had increased almost 12.2 times to 598,115 taxpayers. Taking the 2003 year, with 2.909 million business units (excluding those in community, social and personal services as they are more likely to be exempt from VAT) and VAT registrations of 423,861 in 2005 suggests around 15% of business units were registered for VAT. Due to the limited nature of available statistics on the size of business units, it is not possible to conclude whether this percentage is appropriate or not.

Only 18,256 taxpayers are registered for turnover tax in the current year which is very low considering the number of VAT registrations. Given the likely distribution of the size of business units (i.e. will be many more small ones than larger ones) there appears a huge gap in turnover tax registrations. One possible explanation for this apparently poor compliance is the wide range of exemptions as taxpayers that sell VAT exempt products are also exempt turnover tax. Another possible explanation is the “presumptive VAT” concession offered by the NBR to small retailers and distributors under which their VAT liability is assessed as a fixed annual payment based upon the location of the taxpayer irrespective of their turnover. This would have the effect of bringing small taxpayers within the scope of the VAT rather than the turnover tax.³¹

Another way of evaluating the levels of VAT registrations (although crude) is to compare the number of VAT registered taxpayers to the total population. In the case of

³¹ In Dhaka it is Taka 4,200 (US\$61) per year, while elsewhere it can be as low as Taka 1,200 (US\$17). Whether such traders are able to issue tax invoices and, if so, how they are to allocate this single payment to their sales is unclear.

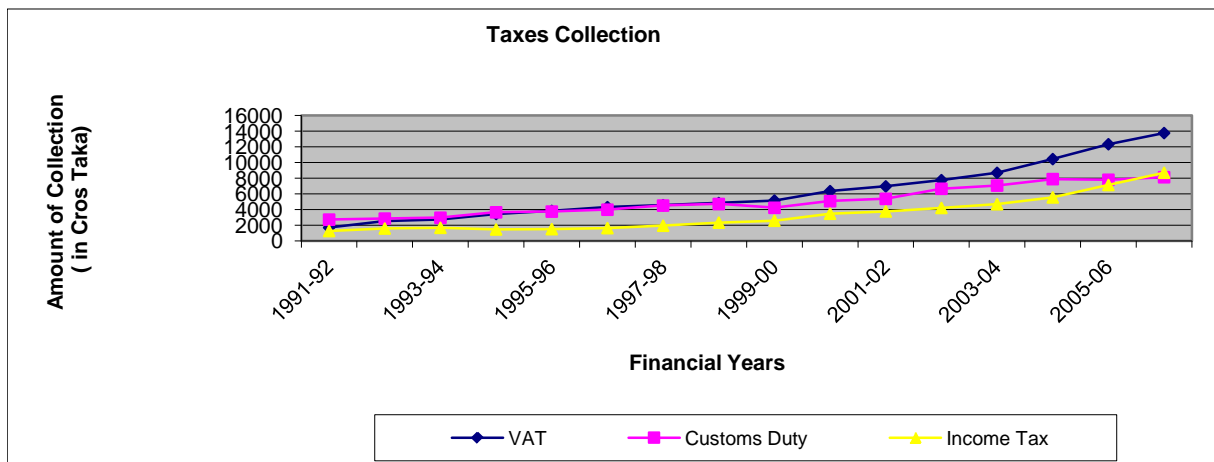
Bangladesh a ratio of 0.4% is obtained which is higher than for some other developing countries such as Peru (0.07% in 1983), Haiti (0.01% in 1985) and Ecuador (0.27% in 1983) –all of which introduced VAT much earlier than Bangladesh.³²

It is interesting to compare these results with a developed country such as New Zealand, which is regarded as having one of the most comprehensive and successful VAT regimes in the world.³³ Despite a population of only 4.3 million, there are 660,000 taxpayers registered for VAT in 2008 in that country –more than for Bangladesh with a population over 35 times greater.

B. Revenue Performance

The following diagram represents the total tax revenue including revenue from VAT.

Diagram 1 - Collection of Taxes from National Board of Revenue(NBR)



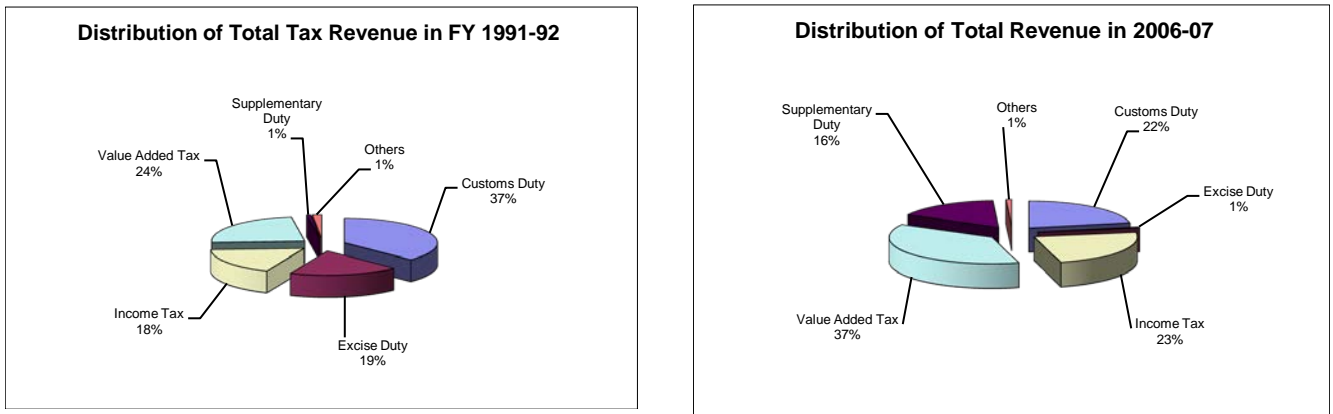
One of the objectives for introducing VAT was to increase total tax revenue collected. The above diagram shows that since its introduction the VAT has made a substantial contribution to public revenues particularly in the latter period of review. Also evident is the declining contributions of income tax and customs duties. The diagram also shows that contribution from Customs Duty has leveled off indicating either the effects trade

³² Jantscher (1987) at p 11.

³³ The New Zealand VAT is known as the Goods and Services Tax (GST).

liberalisation and reduced tariffs or that the volume of imports are decreasing over the period of study with the first reason being the most probable.

Graph-2 Distribution of Total Tax Revenue



Graph 2 above shows the distribution of tax revenue collected for two periods –one being the year the VAT was introduced and the second one fifteen years later. The contribution of VAT to total revenue collected has risen from 24% in 1991-92 to 38% in 2006-07 which is consistent with the trends shown in Diagram 1 earlier.

The Tax/GDP and VAT/GDP ratios since the introduction of VAT in 1991-92 are shown in the following table:

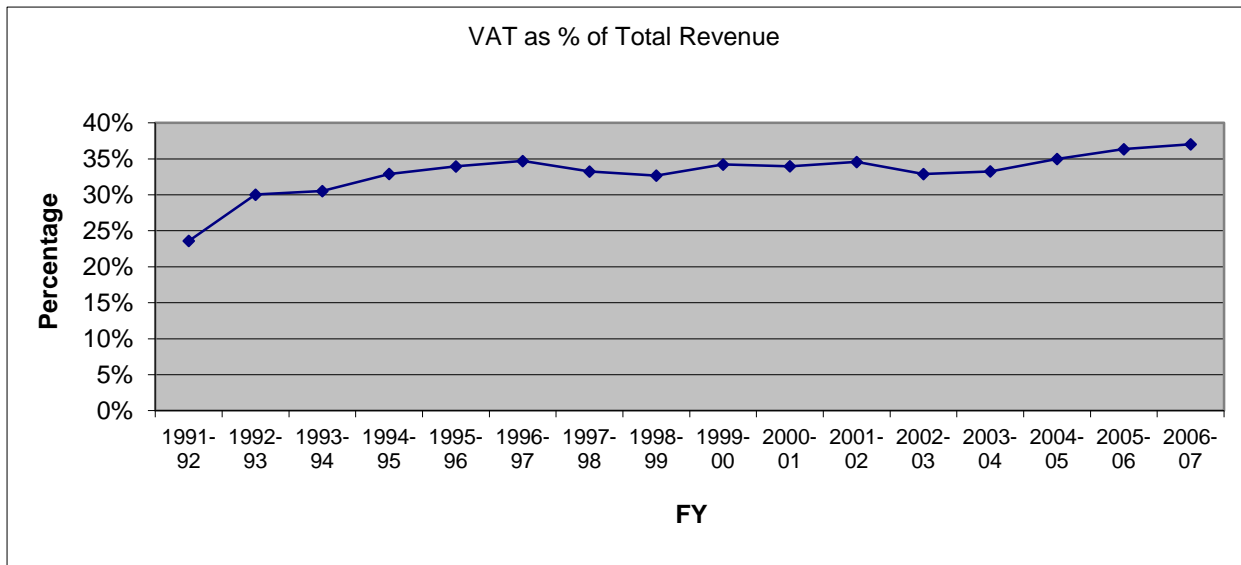
[Insert Table 3 here]

Developing countries such as Bangladesh are usually expected to have a total tax-GDP ratio of 15%-16% to support their development needs and provide essential services. In Bangladesh the current total tax-GDP ratio is only 8.5%, which is very low although it has increased over time.³⁴ The revenue yield of VAT as a share of GDP has increased steadily over the years since it was introduced; however, it is relatively flat after 2004-05.

³⁴ In the recent past, government has heavily borrowed internally (Taka 44.2 billion in FY 2006-07 according to the Bangladesh Economic Review, 2008) to support its budget due to insufficient revenue collection from taxation.

Despite the slow growth of the VAT-GDP ratio, VAT remains a major source of tax revenue for Bangladesh and has contributed on average approximately 33% of the total tax revenue since its introduction - as can be seen in Graph 3:

Graph 3: Percentage (%) of VAT collection to Total Tax



While the proportion of VAT to total revenue has remained constant in recent times, VAT collected has steadily increased since its introduction and is an important contributor to government revenue in Bangladesh. The growth in total government revenue has slipped slightly since VAT was introduced from 14% in the period 1980-1991 to 12% in the period 1991-2007. Comparing the two periods, it is clear that VAT has contributed more to national revenue while customs duty, excise duty and sales tax have reduced which is consistent with the changes to those taxes when VAT was introduced.

Insert Table –4

Table-4 shows that the total revenue collected from import VAT has decreased over the period reviewed. In the initial year collection from VAT (import) was more than 73% of

total VAT collected. This high contribution from VAT on imports may reflect the ease of enforcement when goods were imported through a limited number of entry points as is the case with Bangladesh.³⁵ From an economic perspective, however, VAT enforcement and collection needs to be balanced so that it not dependent solely on imported goods. Therefore the reduction from 73% to nearly 46% in last period reviewed is good suggesting better and more effective administration and enforcement of the VAT law after its introduction.

It is usually expected that a general consumption tax such as VAT will grow at least at the same rate as GDP i.e. its GDP-elasticity should be approximately 1.0,³⁶ however, in Bangladesh's case it appears greater than 1.0 as shown in Table 5. This may reflect time lags in getting compliance with the VAT law after it was introduced, which is consistent with the significant growth in VAT registrations since 1991-92. It may also reflect shifts in the mix of exempt/non-exempt goods and services consumed in Bangladesh as the economy grows.

[Insert Table 5 here]

There are three main measures used to assess the performance of a VAT. They are:

- The VAT efficiency (or “productivity”) ratio;
- The C-Efficiency ratio;
- The VAT “gap”.

³⁵ Despite having land borders with both India and Myanmar, there are relatively few border crossing points. The land border with Myanmar is closed and there are limited crossing points into India. Bangladesh has two main ports and three international airports operating (Dhaka, Sylhet and Chittagong).

³⁶ Bird and Gendron (2006) at p 6.

The VAT efficiency ratio is the proportion of VAT to GDP divided by the standard VAT rate.³⁷ It is a crude measurement of VAT efficiency, but nevertheless indicates the percentage of GDP collected by each percentage point of the standard VAT rate.³⁸ In general, higher ratios indicate better the performance of the VAT. According to the IMF, the average worldwide VAT efficiency ratio is 34%.³⁹ The average VAT efficiency ratio for Bangladesh is 15.92 %, which is low and almost static during the period under review. Though this ratio is below the world average it is higher than the VAT productivity/efficiency ratios reported by other developing countries such as Madagascar (10%) or Gabon (13%).⁴⁰

The C-efficiency ratio measures VAT in terms of consumption and is calculated by taking the proportion of VAT as a share of consumption divided by the standard VAT rate. This statistic is a more reliable measure of VAT performance than the VAT efficiency ratio as it is based on consumption rather than GDP. From the above table, the average C-efficiency ratio for Bangladesh over the period reviewed is 19.25% although for the most recent period it is 24.42%. This ratio also increases over the period reviewed. A uniform tax on all consumption has a 100% C-efficiency ratio. Any other value higher or lower indicates deviation from a single tax rate on all private consumption.⁴¹ In Bangladesh there is more than one VAT rate in force. The ratio for Bangladesh, is consistent with other (although much wealthier) developing countries such as Brazil (16%) and Argentina (27%).

³⁷ The analysis here does not take into account supplementary duty.

³⁸ Bird and Gendron (2006) at p 7.

³⁹ Le (2003) at p 19.

⁴⁰ Burtner, T; Hertz, R and Nam, C W, *VAT Introduction and WTO membership: The Experience in Developing and Transition Countries*, retrieved 5 November 2010 from https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=IIPF63&paper_id=16, 2006, at page 19.

⁴¹ Grandcolas, C, VAT in the Pacific Islands, *Asia-Pacific Tax Bulletin*, January/February 2004, at page 15.

The “VAT gap” is defined as difference between the VAT actually collected and that potentially realisable if all consumption was taxed at the stated rate.⁴² In case of Bangladesh actual total taxable consumption is difficult to determine in absence of more accurate statistics. However, a rough estimate of expected VAT is made by multiplying the total consumption (government as well as private) by the standard VAT rate to get an approximate indication of the VAT Gap. Different rates of VAT are not taken into consideration while calculating VAT Gap. The diagram shows that VAT-Gap is increasing over the period reviewed indicating that there may be scope for increasing VAT collection within the framework of the existing VAT rules in Bangladesh.

On all three efficiency measures the results obtained suggest that the Bangladeshi VAT is not performing as well as might be expected in terms of tax revenue raised. There are probably three reasons for this. Firstly, exempted products/services are likely to comprise a significant proportion of the goods/services consumed by the average Bangladeshi given the levels of poverty in the country. Secondly, there are a large number of concessions and provisions (such as truncated VAT where input credits are denied and the use of tariff values) which means the VAT assessed is not directly based on the actual value-added by a taxpayer but instead by some rough proxy. Both of these reasons reflect legislative and administrative choices in the design of the Bangladeshi VAT regime and reflect practical realities of imposing a VAT in a developing country such as Bangladesh. But the effect of many of these provisions which deem certain levels of input credits without substantiation must also mean that the VAT for many sectors is more akin to a sales or excise tax rather than a genuine VAT. Therefore some of these efficiency measures may be inappropriate. The third reason is likelihood of problems with taxpayer compliance and enforcement/administration.

⁴² Bird and Gendron (2006) at p 40.

Jantscher's finding that in developing countries the majority of VAT collected is from imports and a few large enterprises is borne out in Bangladesh.⁴³ Total VAT paid by the top ten enterprises constitutes more than 60% of the budgeted VAT revenue for FY 2007-08. The dependence of VAT on imports has dropped from 73% of total VAT collections when the tax was first introduced in 1991-92 to 46% in 2006-07 reflecting greater local production relative to imports, and probably better compliance with VAT and stronger enforcement.

The impact of the introduction of VAT upon Bangladesh's balance of trade is unclear. In Table 6 the basic trade statistics for Bangladesh are given for the period since the VAT was introduced:

[Insert Table 6 here]

The trade deficit, as a percentage of GDP, since the introduction of VAT is varied with no distinct trend. These results appear to confirm the fallacies about a VAT improving a country's balance of trade. It is likely that trends in exports and imports do not depend solely upon tax, but instead are influenced by a variety of factors such as exchange rates, terms of trade (which in most cases was against Bangladesh over period of study), cost advantage of export product or product advantage etc. Bangladesh's reliance upon a narrow range of exports (jute and textiles) is likely to have much greater influence upon the balance of trade.

V. AREAS FOR REFORM AND ENHANCEMENT OF VAT REGIME

The analysis in the previous section suggests that the Bangladeshi VAT is not raising as much revenue as might be expected from such a tax. There are potentially a number of reasons for this, some of which reflect explicit policy choices in the design and

⁴³ At page 5.

administration of the VAT regime while others relate to compliance issues with the existing law.

A. Eliminating VAT Exemptions

Given the extensive poverty in Bangladesh and the reliance upon subsistence agriculture by much of its population, it has been necessary on grounds of equity as well as for practical reasons to allow a large number of exemptions for agricultural goods and foodstuffs. Taking this into account, there seems little scope to reduce exemption without making the VAT more regressive against the poor. There may, however, be some scope for including more services within the VAT net by removing some of the current exemptions without unduly negative impact on the poor. As the Bangladeshi economy grows, the consumption of exempt goods/services will reduce relative to the consumption of non-exempt ones which is supported by the results obtained for the VAT elasticity ratio.

B. Increasing VAT Registrations

There is some evidence that VAT registrations are relatively low when compared to other countries especially given the low turnover threshold for registration in Bangladesh. The large rise in VAT registrations since it was introduced maybe indicative of the difficulties in initially obtaining compliance with the VAT regime. There are, however, still likely to be traders who are not registered. As yet there is no system by which these business units can be automatically registered and monitored for VAT immediately after their annual turnover exceeds the last limit of turnover tax. The registrations for turnover tax are low which leads to the question whether the tax should be abolished completely.

A system needs to be established so that these units could be automatically included in the VAT system for monitoring purposes and automatically registered as a VAT unit as soon as the annual turnover of these units exceeded the turnover threshold. The

establishment of a dedicated computer network link with income taxation and a mutual exchange of information would help to increase the number of VAT units. Cross checking from the list of members of the different chambers of commerce, and from the trade license list of municipal (and other) registered bodies, would also help to increase the number of VAT units although none of these measures have been done to date.

The turnover threshold beyond which VAT registration is required is low is unrealistic in a developing country like Bangladesh. It may have been arranged that way because it provides revenue officials with a reason to go out into the community and interact with traders and giving them scope to settle any problems with small traders on an informal basis. The adoption of a higher threshold for VAT registration and repeal of the turnover tax would make the VAT regime more workable and allow limited administrative resources to be directed towards enforcement among larger taxpayers where the greatest revenue gain will be had.

C. Review of Compliance Concessions

There are obviously practical problems in introducing and enforcing taxes in a developing country which typically has a large informal economy. For this reason the Bangladeshi VAT regime has a wide range of concessions and simplifying provisions for VAT assessment designed to try and address these problems and at the same time raise sufficient revenue, but with the result of greater complexity. This problem of complexity is probably made worse due to the ability of the National Board of Revenue under the VAT Act to issue regulations in respect of many matters especially VAT registration and product exemptions. This degree of complexity would undermine a VAT's effectiveness even in a developed country with a sophisticated business sector, but will be even worse in a developing country like Bangladesh.

Part of the problem lies in the absence of any turnover threshold below which there is no requirement for registration or obligation to collection consumption taxes which is unusual by international standards. Adoption of a higher turnover threshold could allow the withdrawal of some of these compliance concessions without necessarily at much revenue cost. The complexity of the regime could be reduced and the result would be a tax regime that is more realistic to enforce in a developing country.

Again the very low level of registrations for turnover tax suggests it is impractical in a country such as Bangladesh (it would probably be so in many developed countries) and its retention should be reviewed especially given the limited amount of revenue that it will produce.

D. Improving Taxpayer Compliance

Most developing countries experience problems obtaining compliance with their tax laws. There is usually a large informal economy that works exclusively on a cash or barter basis and which may be invisible to officialdom. Education levels are often low so that it is unrealistic to expect compliance with the exact letter of revenue laws. Furthermore, there may be a culture of non-compliance with revenue laws and/or an indifference towards public sector institutions and officials. Compliance may also be undermined through unduly complex legislation and weaknesses in administration and enforcement. All of these factors are present in Bangladesh to some degree which must undermine the effectiveness of its VAT regime.

Adding to this mix is the fact that Bangladeshi VAT regime is complex due to the various exemptions, concession, special rules and rates even though they were introduced with the objective of improving basic compliance. This complexity must undermine compliance, or at least increase the risk of errors in a country where there are problems of illiteracy and poor education. Again the adoption of a more realistic turnover threshold for

registration could allow the withdrawal of some of these special provisions and lead to a much simpler tax regime.

E. Revenue Authority Reforms

In many countries a separate organisation is established to administer VATs. Among the reasons given for doing so is that the VAT is a new type of tax which requires a new framework to administer than what is already in place.⁴⁴ No separate organisation was established to administer VAT in Bangladesh and the same officers who administer customs were also employed to administer the new VAT regime. In Bangladesh's case there may be good reasons for this as the administration of supplementary duty requires classification skills similar to those required for customs duty administration, however the decision to not establish a separate organisation appears to have resulted in additional administrative tasks being allocated on to an existing organisation which was already stretched to administer other taxes within its jurisdiction. This appears to be one of the reasons why relatively few staff have been assigned to VAT administration.

The absence of a modern training programme for VAT administration is also a problem especially with regard to audit and enforcement. There is a shortage of appropriate staff and the VAT administration has staffed by short term transfers from other parts of the NBR. This may reflect limited resources for hiring staff. Recruitment processes also need to be updated. The establishment of a separate VAT administrative body could result in better recruitment and development of staffing resources.

⁴⁴ Jantscher (1987) at p 9.

F. *Enhanced Audit*

As VAT is based upon self-assessment, in a country such as Bangladesh where attitudes to tax compliance are poor and tax evasion is widespread, regular audit is likely to contribute to better enforcement although the effectiveness of the audit process is also critical to that goal. Effective audits are dependent upon the appropriate selection of taxpayers for audit and the methods adopted. Given the number of taxpayers registered for VAT, the fact that only 334 firms underwent VAT audits in 2001-02 suggests that the number of audits is too low. Taxpayers face little threat that they will ever be audited and thus there is little deterrent effect arising from VAT audits.

Another issue is the depth of the VAT audits. Of the 334 firms audited in 2001-02, 282 of the audits resulted in no additional revenue being collected.⁴⁵ This suggests that the audit process may have been very simple (such as merely checking of the arithmetical correctness of the VAT returns) which Bird and Gendron noted was common in developing countries.⁴⁶ In more recent years, however, special audits have been conducted at field level in some service units (such as pathology laboratories, restaurants etc.), which has brought more positive results.

There is anecdotal evidence that VAT offices are understaffed and that more rigorous and specialised training is required to increase the effectiveness of VAT audits. The recent establishment of a separate Directorate of Intelligence, Investigation and Audit of VAT headed by a Senior VAT officer suggests that greater resources are being devoted to the audit function.

⁴⁵ National Board of Revenue, Ministry of Finance, Annual Report 2001-02, Dhaka.

⁴⁶ At page 16.

The VAT Act and accompanying regulations (termed “rules”) grant extensive powers to the civil service for enforcement of the VAT law. It appears that these are not being widely used, or if they are, to not great effect.

VI. CONCLUSIONS

The Bangladeshi VAT regime is a complex one and probably would be difficult to administer and enforce properly in a developed country let alone in a developing country such as Bangladesh. This complexity may reflect the influence of outside aid bodies upon the design of the VAT regime combined with local input to make the tax workable in Bangladesh. It also raises wider policy questions of how tax expertise from developed countries can be appropriately applied in developing countries.

The Bangladeshi VAT has been in force now for nearly 18 years. After a slow start the number of registered taxpayers has significantly increased and the VAT has become a significant contributor to government revenue. Even so, the results to date suggest that the Bangladeshi VAT is not realising its full potential.

A more rigorous audit programme is also necessary to encourage greater compliance as well as better resourcing and staff training in the NBR. The incorporation of supplementary duty within the VAT legislation may on paper offer efficiencies in the administration of both taxes, but it adds to complexity and probably undermines to some degree the effectiveness of administration and enforcement of these taxes. Steps recently taken to reduce the scope and rates of supplementary duty should be continued to improve the overall efficiency of the Bangladesh VAT regime.

Some simplification of the VAT regime would assist both with enforcement and compliance. The adoption of a much higher threshold for VAT registration and repeal of the

turnover tax means enforcement and audit resources could be directed towards larger taxpayers where more VAT revenue will be collected. The adoption of a higher threshold for VAT registration would allow some of the various simplification provisions offered for compliance reasons (such as the truncated VAT) to be withdrawn.

Table 2**Total Number of VAT-Registered Taxpayers**

	Total Registered VAT Units	Manufacturers	Service Industry	Exporters	Importers	Suppliers	Total Population (in million)	Taxpayers as a % of Total Population
1992-93	48,987			13,094	1,107		111.4	0.04%
June 1996	106,022		73,011				111.4	0.1%
June 2005	423,861	28,710	259,724	20,836	82,657	105,423	123.1	0.34%
June 2008	598,115	36,818	317,478	27,768	101,081	213,284	150.0	0.40%
Sources: National Board of Revenue, Ministry of Finance, Annual Reports, Dhaka.								

Table 3
Tax-GDP and VAT-GDP Ratio

(Amounts in billion Taka)

Year	1987-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97
GDP at Market Prices	799.93	890.60	1,003.29	1,105.18	1,195.42	1,253.70	1,354.12	1,525.18	1,663.24	1,807.01
Total Tax Collected	44.24	48.46	57.15	65.87	79.00	92.55	97.25	113.56	121.74	134.53
Tax/GDP Ratio	5.53%	5.44%	6.69%	5.70%	8.21%	6.60%	7.18%	7.44%	7.32%	7.44%
VAT/GDP Ratio(%)	-	-	-	-	1.45%	2.04%	2.03%	2.27%	2.32%	2.40%
VAT to Total Tax Revenue (%)	-	-	-	-	24%	30%	31%	33%	34%	35%
Year	1997-98	98-99	99-00	2000-01	01-02	02-03	03-04	04-05	05-06	06-07
GDP at Market Prices	2,001.77	2,196.97	2,370.86	2,535.46	2,732.01	3,005.80	3,329.73	3,707.07	4,157.28	4,674.97
Total Tax Collected	147.93	157.50	160.81	197.77	213.15	247.17	274.31	313.25	355.28	390.74
Tax/GDP Ratio	7.39%	7.17%	6.78%	7.80%	7.80%	8.22%	8.24%	8.45%	8.55%	8.35%
VAT/GDP Ratio(%)	2.29%	2.21%	2.18%	2.52%	2.56%	2.59%	2.62%	2.82%	2.97%	2.95%
VAT to Total Tax Revenue (%)	33%	33%	34%	34%	35%	33%	33%	35%	36%	37%
Source: Annual Report of National Board of Revenue , Ministry of Finance, Dhaka, 2006-07.										

Table 4
Composition of VAT on local and import

FY	VAT (import)	% of VAT from import	VAT (Local)	% of local VAT	Total VAT
	Amount in Cros Taka		Amount in Cros Taka		Amount in Cros Taka
1991-92	1269.74	73.17%	465.53	26.83%	1735.27
1992-93	1731.77	67.55%	831.96	32.45%	2563.73
1993-94	1713.49	62.39%	1032.75	37.61%	2746.24
1994-95	2215.23	63.96%	1248.34	36.04%	3463.57
1995-96	2555.98	66.21%	1304.72	33.79%	3860.7
1996-97	2788.04	64.26%	1550.82	35.74%	4338.86
1997-98	2900.93	63.23%	1687.33	36.77%	4588.26
1998-99	3047.24	62.70%	1812.83	37.30%	4860.07
1999-00	3064.28	59.21%	2110.59	40.79%	5174.87
2000-01	3679.78	57.68%	2700.06	42.32%	6379.84
2001-02	3757.81	53.80%	3227.6	46.20%	6985.41
2002-03	4120.3	52.96%	3660.32	47.04%	7780.62
2003-04	4397.86	50.47%	4316.75	49.53%	8714.61
2004-05	5347.04	51.10%	5117.14	48.90%	10464.18
2005-06	5885.65	47.63%	6472.52	52.37%	12358.17
2006-07	6311.17	45.79%	7471.13	54.21%	13782.3
Source: Own calculation; data taken from Bangladesh Economic Survey , MoF					
One Cros Taka = Tk 10 million					

Table 5
Analyses of VAT Revenue and Consumption Efficiency

	VAT as % of GDP	VAT Productivity (VAT as percentage of GDP /Std rate)	VAT as a % of total consumption	C-efficiency	Change in GDP(A)	Change in VAT (B)	GDP elasticity (Change in VAT /Change in GDP)
1991-92	1.45%	9.68%	1.69%	11.23%			
1992-93	2.04%	13.63%	2.33%	15.54%	0.04875	0.47742	9.794313
1993-94	2.03%	13.52%	2.33%	15.56%	0.08011	0.07119	0.888692
1994-95	2.27%	15.14%	2.61%	17.43%	0.12632	0.26120	2.067773
1995-96	2.32%	15.47%	2.72%	18.15%	0.09052	0.11466	1.266646
1996-97	2.40%	16.01%	2.86%	19.03%	0.08644	0.12385	1.432797
1997-98	2.29%	15.28%	2.78%	18.50%	0.10778	0.05748	0.533332
1998-99	2.21%	14.75%	2.69%	17.92%	0.09752	0.05924	0.607488
1999-00	2.18%	14.55%	2.66%	17.72%	0.07915	0.06477	0.818384
2000-01	2.52%	16.77%	3.07%	20.46%	0.06943	0.23285	3.353753
2001-02	2.56%	17.05%	3.12%	20.83%	0.07752	0.09492	1.224463
2002-03	2.59%	17.26%	3.18%	21.21%	0.10022	0.11384	1.135943
2003-04	2.62%	17.45%	3.25%	21.68%	0.10777	0.12004	1.113873
2004-05	2.82%	18.82%	3.53%	23.53%	0.11332	0.20076	1.77158
2005-06	2.97%	19.82%	3.73%	24.85%	0.12145	0.18100	1.49035
2006-07	2.92%	19.45%	3.66%	24.42%	0.13651	0.11524	0.844202
		15.92%		19.25%			1.89
Source: Own Calculation							
Data were taken from Bangladesh Economic Survey , Ministry of Finance							

Table 6**Exports, Imports and Balance of Trade**

(Amounts in billion of Taka)

FY	1989-90	1990-91	1991-92	1992-93	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Export	68	73	76	93	101	159	188	234	255	288	349	344	379	448	532	699	551
Import	169	150	134	159	168	281	305	342	385	421	504	490	559	643	809	892	696
Balance of Trade	-70	-42	-58	-66	-101	-122	-117	-108	-130	-133	-155	-149	-180	-194	-276	-193	-145
% of GDP	-7.0%	-3.8%	-4.9%	-5.3%	-6.6%	-7.3%	-6.5%	-5.4%	-6.0%	-5.6%	-6.1%	-5.5%	-6.0%	-5.8%	-7.4%	-4.6%	-3.1%

Source: Bangladesh Economic Survey 2007 and 2003, Ministry of Finance, Government of Bangladesh, Dhaka.