An Estimate to Tax Buoyancy of Service Tax of Union Budget of India

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Abstract: Elasticity of tax is the rate of proportionate change in the tax revenue due to change in GDP while tax buoyancy is the composite of the change in tax revenue due to change in GDP and change in tax rate and tax base. To date, many developing countries still face difficulty in raising tax revenue to the level required for promotion of economic growth. A poor tax performance, in terms of raising revenue can mean either deficiencies in tax structure policy or an in adequate effort to collect, on the part of the government, both of which are influenced by various factors. The goal of indirect tax reform is to have a single goods and services tax (GST) that is applied on all firms. This would involve VAT credits running across all kinds of firms in the economy. The use of a single rate would eliminate political lobbying about rates, and eliminate problems of classification. The use of a single rate is neutral to the nature of activity of the firm, thus removing one source of tax-induced distortions in resource allocation. The average percentage change of 0.827 percent in Service Tax for 1 percent change in value of services in GDP indicating that the tax buoyancy of Service Tax for the study period is very high and significant.

Index Terms - Tax Buoyancy, Service Tax, Elasticity of Demand and Supply, regression analysis, demand absolutely inelastic.

I. INTRODUCTION

Rau and Wagner have made the most elaborate attempts to define the modern usage. In this they were only partly successful, because of irregularities in official usage. But despite these irregularities the terms are valuable. Wagner's distinction is practically as follows. There are two ways in which direct and indirect taxes differ. (1) In the case of direct taxes, at least in the expectation of the law-giver, the tax-payer is also the tax-bearer ; any shifting of the burden to another is not expected, not desired, and sometimes, even, forbidden, or subject to penalty. Indirect taxes are, vice versa, those in which the tax-payer is not permanently the tax-bearer, or is not intended to be ; but a shifting of the burden to another is expected and desired, and may even be prescribed. (Wagner)

But this element of shifting is not the only one that is essential to the idea. The second characteristic is what may be called the technical, administrative conception of direct and indirect taxes. It is based on the method of procedure. (2) Direct taxes are such as are regularly laid according to some fixed fact (or one so treated, and at least somewhat fixed), something regularly recurrent, and hence previously ascertainable, — a fact as of personality, of rank, of property, of earning, etc., — and are, consequently, assessed according to some list or roll. (Cadastre.) Indirect taxes, on the other hand, are such as are laid according to some changing, temporary, more or less accidental fact which is, consequently, not previously ascertainable, — something the result of processes, events, transactions, — and are laid and collected according to tariffs. (Wagner),

II. Services Tax

An interesting aspect of the tax assignment system in India is that barring the case of a few specified services assigned to the states such as entertainment tax, passengers and goods tax and electricity duty, the services were not specifically assigned to either the centre or the states and therefore, consumption tax system largely remained untouched. This violated the principle of neutrality in consumption as it discriminated against the goods component of consumption. As services are relatively more income elastic, the tax system is rendered less progressive when these are not taxed. Even more important argument for taxing services is to enable a co-ordinated calibration of a consumption tax system on goods and services as in the production chain, services enter into goods and *vice-versa*. Although there is no specific entry in the central list to tax services, the central government levied tax on three services namely, non-life insurance, stock brokerage and telecommunications in 1994-95.The list was expanded in succeeding years to include over 80 services at present. Although initially taxed at 5 percent the rate was increased to 8percent in 2003-04 and further to 10 percent in 2004-05. *The Expert Group on Taxation of Services* (India, 2001) recommended the extension of the tax to all services along with the provision of input tax credit for both goods and services and subsequently, integration with the CenVAT.

These reforms eventually were to evolve a manufacturing stage VAT. The exceptions were to be two small lists – one, a list of exempt services and the second, a negative list of services, where tax credit mechanism would not cover taxes paid on these services. The recommendation on the levy of general taxation of services has not been implemented and the tax continues to be levied on selective services. However, there commendation pertaining to the extension of input tax credit for goods entering into services and *vice versa* has been implemented.

To date, many developing countries still face difficulty in raising tax revenue to the level required for promotion of economic growth. A poor tax performance, in terms of raising revenue can mean either deficiencies in tax structure policy or an inadequate effort to collect, on the part of the government, both of which are influenced by various factors.

Underlying the conceptual argument that the yield of the tax system is a function of the tax bases available, the rates applied to these bases, and the probability of collecting any specific levy, are a number of other factors. In other words, as Eshag(1983) states, the

actual amount of tax revenue collected depends only partly on, the taxation potential of the individual countries, the taxation targets set by the authorities, and the ability of governments in practice to collect taxes. Given these, the success of the authorities in exploiting the tax potential and in attaining the taxation target will depend on a number of other factors, which include, the economic structure, the general level of development (reflected in per capita income and levels of literacy, urbanization, communication, etc.), the administrative and political constraints on the fiscal system, social-political values, indigenous institutional arrangements, popular desires for government spending, plus other factors which condition overall willingness to pay taxes.

III. Concepts of Buoyancy and Elasticity

Tax buoyancy measures the relationship between historical tax revenue and GDP in terms of proportional increase in tax revenue following one percent change in GDP. On the other hand, tax elasticity measures relationship between tax revenue at a constant tax structure and GDP. If there is no change in tax rates and tax base during the reference period, buoyancy will be same as elasticity. In other words, elasticity of tax is the rate of proportionate change in the tax revenue due to change in GDP while tax buoyancy is the composite of the change in tax revenue due to change in GDP and change in tax rate and tax base.

The estimation of tax buoyancy has attracted the attention of economists of our country when the Finance Commissions appointed by the Government of India during different time period have suggested to increase tax revenue to remove the financial deficits of the country. Dwivedi (1976), Purohit (1978) Dadibhavi (1990), Bhat&Kannabiran (1992) and Upender (1999) tried to estimate buoyancy of different taxes for different states and tried to examine the shift in the buoyancy of tax. But for the union budget no such estimates are available.. The present study is an attempt to estimate the buoyancy of tax revenue particularly the major Indirect Taxes namely; Customs Duty, Excise Duty and Services Tax

IV. Objectives of the study

* To Estimate the Tax Buoyancy of Service Tax of Union Budget of India from the Fiscal Year 1995-96 till 2006-07

Data Sources

The study is based on secondary data, i.e., data published by economic survey. For, the data of total tax revenue and major heads of revenue is collected from the RBI website. In our study the data is used from1990-1991 to 2006-07 for the first two objectives and the third objective related to service tax which was introduced only in the year 1994-95, so data is used from the fiscal year 1995-96 to 2006-07 .

V. Tax Buoyancy of Service Tax of Union Budget of India from the Fiscal Year   1995-96 till 2006-07;

The goal of indirect tax reform is to have a single goods and services tax (GST) that is applied on all firms. This would involve VAT credits running across all kinds of firms in the economy. The use of a single rate would eliminate political lobbying about rates, and eliminate problems of classification. The use of a single rate is neutral to the nature of activity of the firm, thus removing one source of tax-induced distortions in resource allocation.

One major change about the GST concerns the taxation of services production. While the services sector is a substantial fraction of GDP, relatively little is known about the full potential tax revenues from this sector, given the small set of services which have been thus far been brought under the 'service tax'.

VI. Services sector coverage

The services sector presents qualitatively different problems in obtaining compliance. About two-thirds of the manufacturing activity is in the organised sector. It is easier to deal with this organised industrial activity than with the myriad small and tiny enterprises in the unorganised sector."Organised" can be construed more tangibly in the case of manufacturing firms – these are registered under the Factories Act. There is no similar legislation by which all services sector firms can be enumerated or classified. Regulation is limited to banks and a few other services.

A larger proportion of the enterprises in the services sector are unorganised. Wholesale and retail trade is characterised by a very large number of business entities that are proprietary and household enterprises. Similarly, there are a number of small restaurants, second-tier or third-tier intermediaries in the financial sector, professional services, etc. that could be classified as unorganised. The diverse nature of services activities and the larger proportion of firms being in the unorganized sector makes the task of estimating the potential revenue from the levy of a service task daunting. It can be assumed that the organized institutional entities in the services sector can be persuaded to comply with the levy of a service tax. It would thus be useful to estimate the size of the large and medium firms in the services sector to derive a realistic estimate of the potential revenue that can be generated from the services sector. Firm–level information in the services sector has become stronger in the past one decade or so, compared to the situation earlier. There are three reasons for this. First, several departmental undertakings of the government have been corporatised. For example, the Department of Telecommunications is now Bharat Sanchar Nigam Ltd. Secondly; several activities that were largely outside the purview of the corporate world, such as hospitals, entertainment, courier services, etc have joined the organised business **domain** and therefore do publish publicly accessible information. Thirdly, the exceptional growth of the services sector has attracted substantial investments in the organised sector. The best example of this is the private sector investment in the telecommunications sector.

The CMIE firm-level database contains financial information extracted from the audited annual accounts in respect of 1,46,976 companies that are engaged essentially in services activities. Information on all these 1,46,976 companies is not available for all the years. CMIE has information for 1,04,625 companies for the year ended March 2000. In the following years, the number of companies in the

database declines steadily since CMIE decided to concentrate its effort only the larger companies. It was anticipated that the exclusion of companies of sales less thanRs.10 lakh would make an insignificant impact upon the inferences drawn at the aggregate level.
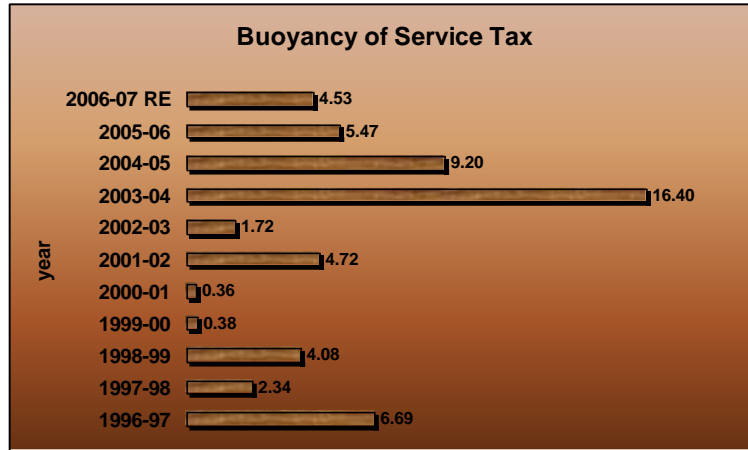
Buoyancy of Service Tax

year	value
2006-07 RE	4.53
2005-06	5.47
2004-05	9.20
2003-04	16.40
2002-03	1.72
2001-02	4.72
2000-01	0.36
1999-00	0.38
1998-99	4.08
1997-98	2.34
1996-97	6.69

Chart-1

31 per cent of the 1, 04,625 companies in 1999–00 reported sales of less than a thousand rupees. A third of the companies had sales of less than ten thousand rupees. Most of the very small companies' were investment and trading companies. For the year 2001–02, CMIE compiled statistics essentially on companies wholesale size was greater than Rs.10 lakh per annum. The number of companies covered by the CMIE firm-level database dropped by half as a result of the reduced outlays for this activity. The coverage, in terms of the proportion of the total gross value added in the services sector dropped insignificantly –from 22.6 per cent in 1999-00 to 22.2 per cent in 2001-02.The 52,456 companies for which CMIE have compiled the statistics for 2001–02 are thus likely to reflect the size of the activities of the organised services sector almost as well as the entire set of 1.4 lakh companies.

Regression for Tax Buoyancy of Service Tax

Another interesting aspect of the study is to find the nature and the extent of impact of regressor **value of services in GDP** over the regressand **Service Tax**, in the context of the influence exercise by **Tax Buoyancy** over the dependent as well as the independent variables. Hence, the data on the **value of services in GDP**, **Service Tax** for the study period has been represented by converting them in to log form for the period under study. On the basis of the data set, a simple linear regression equation of the form

$\log Y = \beta_1 + \beta_2 \log X_2 + e_i$
where ;
logY   -   **Service Tax**
$\log X_2$ -   **value of services in GDP**
e   -   random error
β_1 -   intercept
β_2 partial regression co-efficient.
The results of the analysis are given in Table 1.

Table 1

Model	Beta	t	Sig.
value of services in GDP	.827	4.883	.000

Dependent Variable: service tax

$R^2 = 0.684$

F= 23.842, P = 0.000

Source : computed

It is seen that the value of $R^2 = 0.684$ which implies that nearly 68.4 per cent of the variation in the dependent variable is caused by the regressor namely, value of services in GDP. Of course, the value of R^2 is appreciably good however; the 'F' ratio is 23.842 with a corresponding P value 0.000. It means that the 'F' ratio is significant and hence, the proposed regression model can be treated as a good fit for the data.

With regard to the partial regression coefficient, it may be observed that the 't' statistic corresponding to the regressor namely X_2 is equal to the value of services in GDP has a significant 't' statistic value with 't' is equivalent to 4.883 and P = 0.000, which is significant at 1

percent level and hence it is included in the model. regressions of the form $\log Y = \beta_1 + \beta_2 \log X_2 + e_i$ are used in order to estimate β_2, which can be interpreted as the tax buoyancy, i.e. the average percentage change in Y for a one percent change in X_2. The beta (β_2) value equal to 0.827 (table 2) expresses the average percentage change of 0.827 percent in **Service Tax** for 1 percent change in value of services in GDP indicating that the tax buoyancy of **Service Tax** for the study period is very high and significant.

Service tax - a promising source of revenue

The gradual expansion of the service tax, introduced in 1994-95 to redress the asymmetric and distortionary treatment of goods and services in the tax regime, has been a buoyant source of revenue in recent years. The number of services liable for taxation was raised from 3 in 1994-95 to 6 in1996-97, and then gradually to 99 in 2006. Simultaneously, the rate of tax was raised from 8 per cent to 10 per cent in 2004-05,and further to 12.0 per cent in 2006-07.Revenue from service tax, as the combined outcome of expanding tax net, creeping rate, and buoyant service sector growth, increased rapidly from a paltry Rs. 407 crore in 1994-95 to Rs. 14,200 crore in 2004-05. In 2005-06, service tax revenue was Rs.23,055 crore (Table in the appendix). Budget 2006-07 took some significant steps in rationalising the service tax regime. Service taxes widen the tax net. It has been buoyant source of revenue in recent years. The number of services liable for taxation was raised from 3 in 1994-95 to6 in 1996-97, and then gradually to 100 in 2007-08. In 2007-08 Budget, certain services were specified as taxable services, scope of some of the specified taxable services was changed, threshold limit for small service providers was increased and certain exemptions were announced.

As in the case of other taxes, a cess of 1 percent was imposed on service tax to finance Secondary and Higher Education. The rate of service tax was retained at 12 per cent. Revenue from service tax, as the combined outcome of expanding tax net, creeping rate, and buoyant service sector growth increased rapidly from a paltry Rs. 407 crore in 1994-95 to Rs.37,484 crore in 2006-07 (Prov.) and is budgeted to increase to Rs. 50,200 crore in 2007-08.

VII. Conclusion and Policy Suggestions

In terms of the burden distribution, extending the scope of service tax to all services and then unifying it with CenVAT in a revenue neutral manner would help bring down the CenVAT rate approximately by about three percentage points. This would enable the centre to reduce the VAT rate to about 12 percent and for reasons of equity and revenue, a special excise of an additional 6 percent could be levied on items of luxury consumption (Acharya, 2005). The tax rate of 12 percent at manufacturing stage would be equivalent to 8 percent at retail stage assuming that value added beyond the stage of manufacturing amounts to a third of the retail value of the commodity. KTF on indirect taxes assumed that the overall consumption tax burden should not exceed 20percent, and in such a case, a 12 percent manufacturing stage VAT would leave a tax room of about 12 percent to the states for the levy of VAT at the retail stage. Along with the levy of VAT at the state level, it is important to integrate many of the existing taxes, such as entertainment tax, electricity duty, passengers and goods tax and luxury tax on hotels.

Also there is no case for turnover taxes, surcharges, and additional taxes. The foregoing analysis shows that there has been significant progress in tax reforms particularly in tax administration in recent years that has helped in the recovery of tax-GDP ratio close to the levels that prevailed prior to significant reduction in customs. This, however, is only the beginning, and considerable distance in reforming the tax system is yet to be covered. In other words, the tax system reform including reform in administration is a continuous exercise for improving the revenue productivity, minimise distortions and improve equity. It is important to note that the reforms should be undertaken at central, state as well as local levels. A major objective should be to minimise distortions and compliance cost. In fact, the sub-national tax system should be evolved such that the principles of common market are not violated. It is also necessary that domestic trade taxes on goods and services should be calibrated in a coordinated manner in the spirit of cooperative federalism. Coordinated calibration of domestic and external trade taxes to ensure the desired degree of protection to domestic industry and the desired burden of consumption taxes to the community is also necessary.

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