

Elasticity and Buoyancy of Indirect Tax Reforms: A Regime Based Comparative Analysis of Jammu and Kashmir

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Abstract

In this paper, an attempt has been made to work out regime-based elasticity and buoyancy of Indirect Tax Reforms in Jammu and Kashmir over the time span of last three decades (1990-91 to 2019-20). The whole period has been divided into three phases or regimes as per the reforms made in the indirect tax structure of UT of Jammu and Kashmir. The period from 1991-2005 was the erstwhile General Sales Tax regime, then VAT period from 2005-2017 and finally Goods and Services Tax regime (GST) w.e.f. 2017-2020. In order to eliminate discretionary effects, Exponential Smoothing Method has been applied to filter out the discretionary effects from the actual tax revenue. After that, an econometric model (Johansen Co - integration technique) has been used to work out the strength of tax revenues in terms of buoyancy and elasticity coefficients. The study found indirect tax structure of Jammu and Kashmir to be highly buoyant among all the regime periods. While making a comparative analysis, it was found that indirect taxes possess high buoyancy coefficients as compared to States Own Tax Revenues, Revenue Resources and Total Tax Revenue. The growth of revenue during the Pre-GST regime occurred mainly due to discretionary tax measures (buoyancy > elasticity) while as during GST regime, it occurred largely due to increase in state gross domestic product (elasticity > buoyancy).

Key words: Elasticity, Buoyancy, Indirect Tax, VAT, GST, Regime, Tax Revenue

Introduction

Taxation policy of a nation is the core component of fiscal policy analysis and it determines the economic development of a nation. The fiscal history reflects the historical evolution of a nation going under tremendous change in the course of economic development (Shumpeter, 1954). As India slowly and steadily embraced the dynamic path of economic growth, the fiscal and taxation policies assumed paramount importance in the process (Musgrave). Consequently, the prudent fiscal policy, particularly during 1970s, led to the creation of more equitable and just Indian society (Singh, 2013). On the contrary, the deficient and weak fiscal policy resulted in the economic crisis of 1990s (Rani, 2014). Therefore, to stay in competition in the contemporary competitive globalized world and plug budget deficits, the requisite revenue resource mobilization has become a need of the hour.

As the first and foremost reason of any country to reform its taxation policies is to limit its fiscal deficit (Bird 1993) and to enjoy the fruits of global competition in fiscal matters (Rao, 1992). After 1991, Indian economy underwent through a series of economic reforms, both internal as well as external. The taxation policy which forms a part of internal economic reforms

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witnessed substantial changes particularly after 1991. The taxation policy which was in vogue during the earlier times was the General Sales tax followed by VAT from April, 2005 which latter on was changed into Goods and Services Tax (GST) since July, 2017. The tax reform policy which India adopted changed its entire fiscal structure and has now become at par with international standards.

Following the lead of taxation reforms at national level, the state of Jammu and Kashmir like other states has set itself on the path to achieve the goals as set by the Development Vision of India and to overcome the emerging and lingering challenges that come across its process of development so as to forge a strong, diversified, resilient and competitive State economy. Though all sectors have specific roles and contributions in making the pace of development a dynamic one and ensure self-sustained path, but the taxation reforms plays an important role in shaping the process of planned economic development of the state economy.

The state economy is affected by prolonged violence due to which its nature is characterized by an undeveloped economy. Unaffected and unaltered by modern day industrial developments and changing times, the indigenous traditional occupations of farming, animal husbandry and horticulture, forms the backbone of the economy. Being a consumer-based economy, the only economic variable through which the government of the state finances maximum towards the speed of growth and development and by influencing the rate of production and consumption is the tax revenue from indirect sources such as sales tax, state excise duty, passenger tax, taxes and duties on electricity, state goods and services tax etc. The importance of indirect taxes in state economy is judged by the fact that average contribution of such taxes in states own tax revenues during the period of 1990-91 to 2017-2020 remained 95%.

Concept of Elasticity and Buoyancy

The empirical approach most commonly used to investigate revenue performance and tax potentials is the estimation of tax responsiveness to the change in income. Usually, two concepts are followed in practice: tax elasticity and tax buoyancy. These two concepts hold an important place in public economics because they are vital ingredients of modern theory of taxation (Bahal, 1972; Choudhary, 1979; Mansfield, 1972; Purohit, 1985). It is pertinent to mention here that these two concepts are associated with the flow of revenue to the public exchequer; a question which is of special significance in economically weaker nations. The computation of elasticity and buoyancy coefficients among major heads of tax groups and further for sub groups which represent main revenue components like individual taxes, an analysis of that helps us to identify and ascertain the power of each component of tax category towards revenue realization of state economy. It will facilitate us to determine which taxes are responsible for 'lagging revenue' growth and which taxes are contributing to 'accelerating revenue growth' (Yasmeen E., 2011)

The tax structure of Jammu & Kashmir is best judged by the techniques of elasticity and buoyancy. It is because of these techniques that one is able to judge whether the growth of tax revenue in Jammu and Kashmir over different reform periods has been the result of discretionary tax measures or if they were due to automatic increase in tax revenue which is expected when GDP increases.

Tax buoyancy is a measure of the responsiveness of tax receipts to economic growth. A tax which is buoyant is one whose revenue increases by more than one percent for a one percent increase in national income or output. In measuring buoyancy, no attempt is made to control for

discretionary changes in the tax system or administration. Consequently, buoyancy reflects both discretionary changes and automatic revenue growth.

For policy purposes, it is usually useful to distinguish between revenue growth due to discretionary changes and revenue growth due to changing economic conditions. Tax elasticity is a measure designed for this purpose since it measures the responsiveness of tax revenue to a change in national income or output after controlling for exogenous influences such as discretionary changes in tax policy. In other words, elasticity is net of discretionary changes such as the influence of changes in tax rates, exemptions, concessions and changes in the base of the tax such as coverage, number of commodities covered, volume of production and consumption and prices of related commodities, the friendliness of the tax administration and reasonableness as well as simplicity of the tax rates.

Among the two techniques, most studies focus on elasticity of a tax system because they are concerned with how well the system responds to changing tax bases net of discretionary measures. A system is elastic if tax revenues rise proportionally faster than income as income increases and that the benefits of such a system is the provision of resources for government consumption and financing capital formation. Similarly, a tax is buoyant if the tax revenues increase more than proportionately in response to a rise in national income or output. If buoyancy coefficient exceeds elasticity coefficient, then discretionary tax measures are assumed to be contributing more to the growth in tax revenue than the built-response to the base. Actually, discretionary changes are imposed by authorities to maintain short-term revenue objectives. If now elasticity exceeds buoyancy, then discretionary tax measures will lead to a decrease in revenue. If coefficients of elasticity and buoyancy are equal, then discretionary measures are said to have little to no impact in tax revenue.

Literature Review:

Eleanor and James (1980) explored a study in different states of United Nations during the period (1970-75). The study has been made with the purpose to work out the elasticity of tax behavior in relation to the amount spending made by different state governments of United Nations. Here, tax elasticity has been used as tax revenue generating capability of a tax structure in response to increase in tax payers' income without a change in statutory tax rates. The estimation has been worked with OLS technique and the results showed a positive relation between tax elasticity and the level of government expenditure i.e. states with higher elasticity coefficients possess higher levels of government expenditure as compared to states of low tax elasticity.

Osoro (1993 and 1995) has made two separate studies in Tanzania with the purpose to estimate a comparative study of impact of tax reforms on the growth of tax revenue in terms of variations in buoyancy and elasticity coefficients. The time period for the first study covered the span from 1979-1989 and for the next study conducted in 1995; the time period ran from 1970-1980. In both the studies, buoyancy estimation has been worked out with double log form equation method and for elasticity coefficient, proportional adjustment method was used. In the former study, the author has found tax buoyancy greater than tax elasticity by reflecting the fact that tax reforms failed to produce desirable impacts on the revenue generation because of weak financial administration coupled with large number of tax exemptions. In the latter study, instead of upward revision of tax growth; there happened a drastic reduction in revenue generation as the elasticity coefficient of overall tax system declined from 0.8 to 0.7 in 1980. Similarly, income tax and import duty which were elastic in 1970s turned inelastic during 1980s. There was a

decline in rates of import duty which increased imports on a large scale and fluctuating tax bases on account of large exchange rate depreciation.

Kusi (1998) has made a comparative study to estimate the elasticity and buoyancy of Ghana's tax structure and its impact on pre and post-reform period during 1970-1993. The study has used Proportional Adjustment method and has found a positive impact of post-reform period on the tax structure of Ghana. The buoyancy and elasticity coefficients during post-reform period were worked out to be greater than pre-reform period. The pre-reform period of Ghana's tax structure has been found beset with the problems like weak tax administration, delay in tax collection, unrecorded trade, tax evasion and smuggling.

Fauzia (2001) has made a study in Pakistan to estimate and has worked out the elasticity and buoyancy of direct and indirect taxes during 1981-2001. The study has estimated elasticity by removing the effects of discretionary changes and then by applying two step regression analysis on responsiveness of tax base to GDP and tax revenue to tax base. The author by using Chain Indexing Technique has found high elasticity coefficient in case of all direct taxes and sales tax of indirect one as compared to customs duty and excise tax. The study has concluded that tax revenue growth of Pakistan during the study period has been mainly due to discretionary effects by improving the elasticity of all taxes.

Indraratna (2009) has conducted a study in Sri Lanka to estimate empirically tax elasticity's during pre and post-reform period of 1960-1994. Here, income tax was related to the base of GDP at factor cost, turnover and excise taxes with private consumption, and import duty with imports of goods and services. By using a time series regression approach, the study has found overall inelastic tax structure during the study period due to slow growth of tax revenue with that of tax base. Among the factors, the prominent ones responsible for this were huge tax exemptions, weak tax incentives, duty waivers, low compliance and accountability and some important sectors of the economy which were out of tax net. Further, growth rate of tax revenue in post-reform period as reported by the researchers didn't show any improvement as compared to pre-reform period owing to same elasticity coefficients of two periods. So, whatever growth in tax revenue occurs in Sri Lanka during the study period, it was due to discretionary effects due to higher values of buoyancy of most taxes

Yousuf and Haq (2013) have conducted a study with the purpose to estimate buoyancy and elasticity of direct and indirect taxes of Bangladesh. The study has used Exponential and Slop Dummy techniques in order to eliminate discretionary changes in tax structure for the period 1980-2011. The authors have found higher coefficients (greater than 1) of elasticity and buoyancy among income tax, sales tax and VAT and low elasticity incase of custom duties. The study has further found that in case of all taxes whether direct or indirect ones, the buoyancy coefficient during the study period worked out to be greater than their corresponding elasticity's suggesting thereby that most of the growth of Bangladesh tax revenue occurs due to discretionary changes like increase in tax rates, base etc. than increase in national income.

Krushna (2015) has made an attempt to examine the tax buoyancy in India over 1950-2010. The study has divided the study period into five decades by making data collection from RBI Bulletin and Indian Public Finance Statistics. The study has used Log – Linear regression technique for estimation of productivity changes in growth of tax revenue in India. The study has found buoyancy coefficients higher than national income over the whole study period indicating thereby that tax revenue growth occurred due to discretionary effects and not due to change in national income. The discretionary changes contributed positively more during the decade of

1960-70. The study has further estimated impact of one percent increase in GDP on decade wise tax revenue in India. The study has found that during 1950-1960, one percent increase in GDP resulted 1.7 percentage increase in tax revenue. From 1960-70, increase in tax revenue was reported only 0.6%.

Patnaik and Pillai (2017) have conducted a study in India with the purpose to study the impact of post reform period on the elasticity and buoyancy of corporate tax, Customs Tax, Income Tax and Union Excise Duty during 1990-2010. The authors while collecting data from DCH data book of Central Statistical Organization used non-agricultural GDP as the base for analyzing the variations in Corporate Tax and Income Tax. For Union Excise Duty, household consumption was used as the base which was collected from World Bank data and Customs Duty being regressed with trade volume taken mainly from Directorate General of Foreign Trade. By using OLS Technique, the study found that indirect taxes like customs duty and union excise were more than direct taxes due to increase in volume of tax revenue particularly w.e.f. 1991. The growth of income tax has been observed mainly on account of growth in tax base and hence being more elastic than indirect taxes. The study has witnessed negative impact of tax reforms on the revenue generation of corporate tax because of decrease in company tax to 35% in 1997-98 and also because of shifting 20% tax base from individual to the company.(HERE)

Dudine and Jalle (2017) have made a comparative analysis with the purpose to estimate short run and long run tax buoyancy of 107 countries for the period 1980-2014. The total sample consists of 31 Advanced Economies, 38 Emerging Economies and 38 Low Income Countries. The estimation has been made with reference to Income Tax, Corporate Tax, Taxes on Goods and Services and Social Security Contributions. The study is based on secondary data collected from OECD data bank and IMF World Economic Outlook. By using Fully- Modified OLS technique, the study has found higher value of buoyancy coefficient for corporate income tax among advanced economies suggesting a declining share of labour income over the reference period. This in other words resulted a weak buoyancy of income tax whose coefficient is relatively less than one. In emerging economies, higher value of buoyancy has been observed in income tax and social security schemes and for low income countries among taxes on goods and services. So far as the short run buoyancy is concerned, it is greater than one in case of income tax among advanced countries as well as in emerging economies thereby reflecting that income tax is the main revenue generating source in these economies as compared to other taxes. The short run buoyancy of social security contributions in advanced economies is less than one owing to its regressive set-up.

Nadikar and Rami (2018) have examined tax elasticity and buoyancy of Central, State and Combined governments in India. By collecting data from Indian Public finance Statistics (1990-91 to 2015-16) pertaining to revenues from direct and taxes as well as of indirect taxes. The study has used Log Regression model to assess the impact of major tax policies of India on productivity changes of different taxes. The study has found the value of buoyancy coefficient less than elasticity for all forms of governments – central, state and combined ones which suggested weak impact of discretionary policies in raising revenue productivity of India. By analyzing the effect of tax policy reforms decade wise, it was found that tax policy reforms affected positively during the second decade of study period as the coefficients of buoyancy and elasticity were greater than unity. Further, state governments as compared to Centre had received good impact for being more tax productive where elasticity and buoyancy coefficients assumed higher values.

Objectives of the study:

1. To work out regime wise elasticity and buoyancy of indirect tax structure of Jammu and Kashmir for the period 1990-91 to 2019-2020;
2. To analyze and estimate the revenue strength of indirect tax revenues of Jammu and Kashmir.

Data Source and Methodology

- 1) **Data source:** Relevant data for the estimation of Elasticity and Buoyancy over the period 1990-91 to 2019-2020 has been taken from various issues of RBI bulletin. This time period has been divided into three regimes i.e. period from 1991 to 2005 (General Sales Tax / Pre- VAT regime), 2005 to 2017 (VAT Regime) and 2017 to 2020 (present day GST regime). In order to maintain homogeneity of relevant data, all the major and minor heads of tax revenue were taken with respect to same base i.e. Gross State Domestic Product as shown in Table 1.1

Table 1.1: Relevant base of different categories of taxes

Categories of Taxes	Relevant Bases
Total tax revenue	Gross State Domestic Product
Direct tax	Gross State Domestic Product
Indirect tax	Gross State Domestic Product
Non-tax revenue	Gross State Domestic Product
Sales tax	Gross State Domestic Product
State excise	Gross State Domestic Product
Taxes on vehicles	Gross State Domestic Product
Taxes on goods and passengers	Gross State Domestic Product
SGST	Gross State Domestic Product

Methodology

To fulfil the twin objectives of the present study, a two-step methodology has been followed. In the first step, discretionary effects are removed from the actual tax revenue. For this purpose, various techniques like Exponential Smoothing Method (ESM) and Slope Dummy Approach are available. However, this study preferred the Exponential Smoothing Method (ESM) for its simplicity and effectiveness in filtering out the discretionary effects. In the next step, an econometric model was specified which correlates the smoothed tax series with the GDP to analyze the effect of income change over tax yields.

The Model

Johansen Co-integration technique has been applied to estimate the long run relationship between the variables of interest. For estimation of elasticity, the mathematical form of the model as expressed below was followed.

$$\ln Ry_t = \beta_0 + \beta_1 \ln GDP + \varepsilon_t$$

where ;

$\ln Ry_t$ represents different smoothed tax series.

β_1 = elasticity

$\ln GDP$ is the log of GDP,

ε is the error term and

t represents the year.

However, the measurement of buoyancy differs from that of the estimation of elasticity. Here the actual data series (without removing discretionary effects) has been taken into consideration as against the smoothed ones in case of elasticity. The mathematical form of the model used is as follows:

$$\ln y_t = \alpha_0 + \alpha_1 \ln GDP + \varepsilon_t$$

where;

$\ln y_t$ represents different tax series (with discretionary effects)

α_1 = buoyancy

$\ln GDP$ is the log of GDP,

ε is the error term and

t represents the year.

Results and Discussion:

The regime-wise buoyancy and elasticity for different components of tax revenues of Jammu and Kashmir has been presented in Table 1.2. In the table, total revenues include tax revenue and non –tax revenues. Similarly, tax revenue of Jammu and Kashmir include Direct taxes, Indirect taxes and share in central taxes. So far as the States own tax revenue is concerned, it comprises of only direct taxes and indirect taxes. Actually, the study focused towards indirect taxes or taxes on commodities and services. But to overemphasize the relative importance of indirect tax revenues to state economy over other tax revenues, coefficients of other taxes have also been worked out.

Table 1.2: Elasticity and Buoyancy of Different Tax Components

Tax Component	1991-2005 Pre- VAT Regime	2005-2017 VAT Regime	2017-2020 GST Regime
Revenue Receipts	0.85 1.06*	0.85 0.97*	1.06 1.19*
Total Tax Revenue	0.65 0.77*	0.99 1.30*	1.38 1.49*
States own Tax Revenue	0.75 1.01*	1.13 1.16*	1.09 1.69*
Total Indirect Tax	0.98 1.16*	1.13 1.46*	0.89 0.98*
Sales Tax	1.02 1.70*	1.38 1.36*	1.54 0.84*
State Excise	1.01 1.22*	0.47 0.80*	1.49 1.75*
Taxes & Duty on Electricity	0.89 1.59*	1.11 1.27*	1.01 0.94*
Taxes on Vehicles	0.84 1.32*	0.94 0.73*	1.46 1.32*
Taxes on goods and Passengers	0.24 0.83*	0.78 0.88*	1.07 1.46*
SGST	-	-	0.98 0.67*

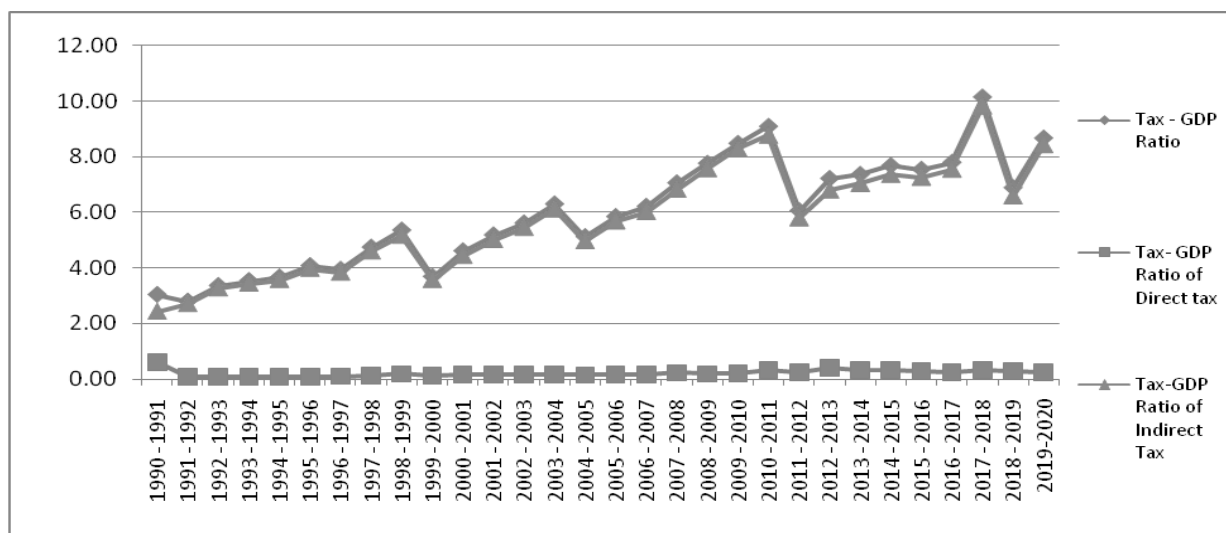
*Represents Buoyancy Coefficient

(Source: Authors Calculation)

Estimation of elasticity coefficients of individual taxes during different regimes reveal significant variations indicating that the responsiveness of individual taxes to changes in State income vary among different tax components. The variations in buoyancy coefficients are to be attributed also to an additional factor, namely; differences in policies regarding discretionary tax changes.

The results obtained in Table 1.2 indicate that the tax system of J&K on an average is not only buoyant but also elastic with reference to changes in state income. Among the different tax regimes, all types of tax revenues witnessed buoyancy greater than elasticity. While comparing total indirect taxes with states own tax revenue, revenue resources and total tax revenue; the results found buoyancy coefficient of indirect taxes (1.16, 1.46, 0.98) greater than other sources of tax revenues particularly during Pre-VAT and VAT regimes, thereby suggesting that indirect taxes revenues of J&K clearly indicate a positive impact of transition in tax regimes. The transition has resulted in a sustained fiscal growth in terms of revenue collection in Jammu and Kashmir particularly after 1991. Moreover, high coefficients of buoyancy refer to the fact that other than State GDP, discretionary changes has strong influence over resource mobilization from tax sources. During the GST regime, elasticity exceeds buoyancy and the growth of indirect taxes of state economy occurred mostly due to growth of SGDP. Since FY 1990-91 to 2019-20, indirect Tax-GDP ratio has increased fourfold from 2.4% in 1990-91 to 5.69% in 2005-06 and 8.45% during FY 2019-20 (Figure 1.1). This suggests that tax reform measures under which the state of Jammu and Kashmir is passing have contributed significantly to the overall tax performance. The overall growth of revenue from indirect taxes of Jammu & Kashmir from 1990-91 to 2019-20 has been estimated at the rate of 17 percent per annum as against 12.82 percent from direct taxes. Referring to the regime-based growth rates of tax revenues, the UT of J&K witnessed higher yield from indirect taxes as compared to revenue receipts and states own tax revenue (Table1.3)

Fig 1.1: Tax- GDP Ratio of Jammu and Kashmir



Source: Compiled by author by using various issues of RBI Bulletin

Table 1.3: Regime Based Growth Rates of State Tax Revenues

Growth rate - Regime based			
Period	Total Tax Revenue	States own tax revenue	Indirect taxes
1990 – 2005 (Pre-VAT Regime)	10.16%	11.59%	11.89%
2005-2017 (VAT Regime)	14.32%	13.52%	14.89%
2017-2020 (GST Regime)	5.20%	6.98%	7.08%

Source: Computed by author

By looking into the different components of indirect taxes, the study found that Sales Tax/VAT which is the most important source of state revenue to be highly buoyant during Pre-VAT and VAT periods (1.70 ,1.36) as compared to its strength during the ongoing GST regime . These two regimes have witnessed major changes in tax rates and laws and because of the fact that tax rate was high in these periods as compared to GST. The share of Sales Tax/VAT in total indirect taxes has increased from 36% (1990-91) to 66% (2004-05) and further to 79% (2016-17). After that GST has been implemented in J&K since 2017; the share of Sales Tax/VAT in indirect taxes decreased from 43% during 2017-18 to 12% during 2019-20. This is due to the fact that GST subsumed multiple indirect taxes of state like State VAT/ sales tax, Entertainment tax, Central sales tax, Octroi and entry tax, Purchase tax, Luxury tax, Taxes on lottery, betting and gambling. With the result that hence forth 2017 onwards, revenue from all these components has been clubbed into one major head namely State Goods & Services Tax (SGST). It is pertinent to mention here that state budgets besides releasing the annual figures of SGST also mention the revenue figures of subsumed taxes individually but that would be only up to 2022-23 in the form of arrears or backlog revenue under which the commercial tax department of J&K raises demand for them. After 2022-23, only figures of SGST would be released by state budgets.

The sales tax followed by excise duty, taxes and duties on electricity and passenger tax also play a major role in shaping the contribution of indirect tax revenues. State excise was buoyant during Pre-VAT and GST regimes (1.22, 1.75) and also elastic one during the same regime periods (1.01, 1.49). Since 1991, excise duty has been raised thrice from 12% to 30% to 40% vide SRO 139, dated 2013. The rates have been kept unchanged during GST regime owing to non-inclusion of major products on which excise duty is levied like petrol and petroleum products. Hence, whatever revenue growth of excise duty occur during GST regime, it is automatic because of increase of increase in SGDP.

So far as the electricity rates are concerned, consumers here are charged a duty which in fact are the rates charged for the usage of electricity sold by the Electricity Boards and retained by them. The duty brings revenue to the state governments. The tax thus depends upon the amount of consumption of electricity. Indirectly, the yield of the tax depends on the industrial development in as much as an indicator of development. Also, availability of electricity supply affects the yield of the tax. The electricity duty was charged in the state from 1965-66. During the Pre-VAT and VAT regimes, electricity duty was buoyant (1.59, 1.27) but elastic (1.01) during the GST regime. This is due to the fact that in the former regimes, electricity duty was

22% which in the GST regime was reduced to 10% by the then Finance Minister Haseeb Drabu w.e.f. Oct, 2015. During the three decades of the study period (1990-91 to 2019-20), electricity duty showed an increase of 309%, 1438% and 171% respectively. Huge variations in yield has also been noticed regime –wise in case of taxes and duty on electricity where it has been observed that owing to reduction in electricity duty from 2015 onwards, yield from this source of revenue has also gone down.

Taxes on vehicles and taxes on goods and passengers witnessed buoyancy greater than elasticity during different tax regimes of Jammu and Kashmir. It is due to the increase in tax rates and amendments made in the transport department since 2004. As per the amendments made in SRO 24, state Transport Authority fixed the maximum chargeable fare from 8% to 14% among Big, Medium and Mini Buses (stage carriage), Taxi / Maxi cabs and Tata Magic (Auto). For Taxi / Maxi Cabs used by tourists like Innova, Fortuner, it has been increased from 12% to 19%. In case of base model Tax / Maxi Cabs contract carriages, the slab changed from 9% to 12%. For Auto Rickshaw, it has been changed from 5% to 9.8. Similarly, the fee in respect of an application for the grant of a 'Permit' for various categories of transport vehicles has been revised. For example, in case of stage carriage like Big, Medium and Mini Buses, permit fee have been increased by 35%. For contract carriages including tourist vehicles, it has been increased to 45%, National Permit for goods carriage and private service vehicles increased by 37%. For rest of the vehicles, it has been increased in the range of 20 – 25%. (SRO, 65, Rule 79 of Notification 02 Feb, 1999). Also, fee which was charged for various purposes for one year validity fell under various categories like permit fee, fee for altering the route, temporary permit, countersignature of permit, renewal of permit, transfer of permit etc. The fee for these categories was revised by the transport authority in 1999. For example, in case of stage carriages (big, medium and small buses, it was fixed for Rs. 10000, 7000 and 5000 respectively. For contract carriages, the charge rate is Rs. 10000 in case of All India Omni Buses, Rs 700 for All India Tourist taxi cabs, Rs. 750 for Taxi cabs, Rs 7000 for goods carriage and Rs. 3500 for private service vehicles (SRO 65, Rule 80, of Notification 02Feb, 1999). As per the SRO 183, tax rates on motor vehicles using any public road transport in J&K has been doubled. Such type of vehicles include vehicles for carrying passengers not plying for hire, buses other than commercial buses, commercial buses, other than buses i.e. taxis / auto rickshaws, goods vehicle (SRO 183, dated 02/06/2020).

During the reforms made in the GST regime, the transport department of J&K witnessed both elastic and buoyant growth of taxes. During this regime, there is an increase of taxes to the tune of 9% on all motor vehicles and an increase of 10% for those motor cycles costing above 1.5 Lakh (SRO 492, dated: 01/08/2019).

The high buoyancy coefficients of the state taxes can be explained by the upward revision of tax rates in Jammu and Kashmir during different regimes of tax reforms. The rate structure of taxes on commodities and services which was prevalent in erstwhile General Sales Tax has been changed in the VAT period in the form of different schedules of rates. Similarly, major changes have been done in GST regime over VAT regime where every effort has been made to establish a common market so that uniformity in tax rates prevails over entire nation. Hence the rates which were in vogue during VAT have been totally changed. For example as per SRO 93 of

1991 dated 7th of March, 1991, edible oils of all kinds imported into the state for resale which earlier as per J&K General sales Tax Act, 1962 was levied @ 4% was raised to 8% w.e.f. 27th of March, 1994. All the SSI units producing edible oils were enjoying tax exemption which later on was withdrawn by the state government by levying entry tax at the rate of 4% on the edible oil imported from outside the state for re-sale in the state. This was done to protect indigenous oil industry against stiff competition from outside state. The subsection C of Section 3 of SRO 348, dated 20/8/1998 made the amendments of rate change whereby the government levied additional tax at the rate of 0.6 per kg on dry fruits including almonds, walnuts and walnut kernels which the state exported to different states through Lakhapur, Jammu railway station, Manwal and other toll posts as may be notified by the government from time to time in addition to the tax payable in terms of SRO 115 dated March 31, 1982. So far as the cement production of Jammu and Kashmir is concerned, till 1990, its sale and packing was being charged a tax @ 8% as per SRO 135 dated 29/3/1989. But from 1990-91 till 1996-9, the tax assessing authority of Jammu and Kashmir besides imposing 8% tax levied a separate rate of 4% on gunny bags and hessian for packing purposes. Similarly SRO 80 dated 30/3/2000 raised the excise duty from 12% to 20% on petroleum and petroleum related products and in case of liquor, cigarettes, tobacco and tobacco related products, it was raised from 20% to 30%. The tax rates vide SRO 187 dated 6th of June, 2006 have been raised from 12% to 20% on Foreign Liquor including IMFL, beer, ale porter and other fermented drinks, Resin, Lottery tickets, Natural gas and Aviation turbine fuel.

The service tax Act is not applicable in Jammu and Kashmir. But the state has its own services tax which has been amended several times since 1997 under various SRO's. During 1997, services in Jammu and Kashmir were charged at the rate of 2%. During 2005-06, the rate has been increased to 4% and in 2007, vide SRO 117, dated 30/03/2007, the rate has been increased to 8%. But new services like Advertising, Pandal and Shamiana and Petty and E-class contract services have been added to it. In 2012, vide SRO 153, dated 31/03/2012, the service tax increased to 10.5% and in 2015, vide SRO 105, dated 31/3/2015, service tax of 26 services of Jammu and Kashmir has been charged at the rate of 12% plus surcharge of 5% w.e.f. 01/04/2015.

Conclusion

It can be stated that of the total tax revenue of Jammu and Kashmir economy, indirect taxes has come to play an important place in the fiscal structure of Jammu and Kashmir. Over the years efforts have been made by the state government to mobilise additional resources through this tax by way of changing the tax rates and tax base during different tax regimes right from General Sales Tax to VAT and then from VAT to present day GST. Owing to this, average contribution towards state revenue from this type of taxation remained 95% during the study period of 1990-91 to 2019-20. The importance of indirect taxes in state economy is reflected by the contribution it makes to state GDP because of the decreasing proportion from direct taxes to SGDP. The Tax-GDP ratio which was 4.33% during the erstwhile General Sales Tax regime (Pre- VAT regime) increased to 7.34 during VAT regime and in GST regime, it stayed at 8.38%. As a result, indirect taxes demonstrated a very high rate of growth as compared to total tax revenue or states own tax revenue. The estimation of elasticity and buoyancy for the major components of state indirect taxes reveal their highest revenue generating potential. The growth of revenue during the pre-GST regime occurred mainly due to discretionary tax measures (

buoyancy > elasticity) while as during GST regime, it occurred largely due to increase in State gross domestic product (elasticity > buoyancy)

References:

- Bird, R.M., 1993. "Tax reform in India", *Economic and Political Weekly*, vol. XXVIII, 11 December, pp. 2721-2726.
- Choudhary N.N. (1979). "Measuring the Elasticity of Tax Revenue: A Division Index Approach", *I.M.F. Staff Papers* Vol. 26, No.1.
- Dudine P. and Jalle J.T. (2017), "How Buoyant is the Tax System? New Evidence from an Economic and Social Review", 39(1): 75-86
- Eleanor, C.D. and James H.A. (1980), "The effect of tax elasticity on government spending".
- Fauzia, M. (2001), "Elasticity and buoyancy of major taxes in Pakistan". *Journal of Pakistan*
- Indraratna Y. (2009), "The Measurement of Tax Elasticity in Sri Lanka : A Time Series Journal of Public Choice", 35(3): 267-275
- Krushna A.V. (2015), "Tax Buoyancy of India: An Empirical Analysis". *International Journal of Research in Management, Economics and Commerce*. Impact Factor: 5.662, ISSN 2250-057X, Volume 5 Issue 2, December, 2015.
- Kusi N.K., "Tax Reform and Revenue Productivity in Ghana". Research Paper No. 74, Large Heterogeneous Panel". IMF Working Paper 17/4.
- Nadikar P.I. and Rami G.D. (2018), "Tax buoyancy and Tax elasticity in India: A Long Nairobi; African Economic Research Consortium.
- Osoro, N.E. (1993), "Revenue Productivity Implications of Tax Reform in Tanzania".
- Osoro, N.E. (1995), "Tax Reforms in Tanzania: Motivations, Directions and Implications".
- Patnaik D. and Pillai A. (2017), "Responsiveness of the Indian Tax System: A Time Series Publication Delhi- 110001 (India).
- Rani, V. (2014). *Tax Reforms in India*. New Century, p. xiv. Rani, V. (2014). *Tax Reforms in India*. New Delhi: New Century.
- Rao, M.G. (1992), "Proposals for State level Budgetary Reforms". *Economic and Political*
- Yasmeen E. (2011). "Sales Taxation and VAT in Jammu and Kashmir". *New Academic Regression Model*". *IQSR Journal of Business and management*. ISSN: 2278-487X, P – ISSN: 2319 – 7668, PP 49 – 55
- Research Paper No. 20, Nairobi; African Economic Research Consortium.
- Research paper No. 38. Nairobi: African Economic Research Consortium.
- Shumpeter, A. J. (1954). *The Crisis of Tax State*. *International Economic Paper* No. 4, p. 7.
- Singh, H., & Kumar, S. (2008). *Dictionary of Economics*. Ramesh Publication.
- Singh, N. (2013, Jan.-Feb). *Fiscal Reforms in India*. *Journal Of Humanities And Social Science*, pp. 52-63. Sinha, S. (2016, NOV.). *GST: One Nation, One Tax*. *YOJANA*, p. 52. *Weekly*, 1 February, 1992.
- Yousuf M. and Haq S.M. (2013), "Elasticity and Buoyancy of major Tax Categories: Evidence from Bangladesh and its Policy Implications". *Research Study Series No – FDRS* 03/2013