Impact of Tax Revenue on Economic Growth: A Study of Selected Countries

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Abstract

There are two major types of taxes: direct taxes and indirect taxes. In this research paper, for the purpose of comparing these types of taxes in India and Bhutan, we have taken a sample of tax revenue collected under the heads of direct and indirect taxes. This sample ranges from 2004-2005 to 2014-2015. The results show that Bhutan is generating more tax revenue through indirect taxes whereas India is from direct taxes. By comparing the two regression equations and the standardized betas, we come to know that in Bhutan, more revenue is charged by levying indirect taxes where as India is on the opposite side of it. The results of these two types of fiscal policies can be very different and the more the indirect taxes in country, the more will be increasing gap between rich and poor and thus the more will be the exploitation of labor class. In this paper an attempt has been made to analyze the impact of taxation on the economic development of India and Bhutan

Keywords: Indirect tax, Direct tax, Tax revenue

Introduction

Tax can be defined as the charge levied by the government of a country upon its habitants for its support or for the purpose of facilitating the public of that country. It is neither a voluntary payment by the tax payer nor like a donation. Rather it is an enforced payment to the government. On nonpayment of it, the tax payer will be punishable by law. The purpose of taxes is to create welfare for the society by providing public services, protection to properties, defense expenses, economic infrastructure etc. There are four main purposes of taxation which are revenue (collect a sum of money for government), redistribution (transfer from rich to poor), reprising (levied on harmful things e-g; tobacco, carbon), representation (accountability to general public by the government) (wikipedia.com). In case of direct taxes, the taxpayers are generally more curious to know about their taxed income. That's why they stress the government for the representation of its consumption. Taxes are levied at different percentage rates. These percentage rates are determined by comparing with income or consumption level. It has three basic types that are progressive, regressive and proportional rates. There are two major types of taxes which are direct and indirect taxes. There are different views about the definition of these two types. In simple words it can be describes as direct taxes are those the burden of

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which is directly born by the tax payer and contrary to this if the burden of taxes is transferred to other or public, are called indirect taxes.

In Bhutan, at the time of independence, the fiscal system was followed by the Government of India Act 1935. Later it was followed in accordance with Islamic Republic of Bhutan Act 1973. Federal government levy taxes in Bhutan and provincial governments are also assigned powers to impose certain types of direct taxes. At the time of independence, Income Tax Act 1922 was applicable in Bhutan. After independence it was converted into Income Tax Act 1979. In 1980s major economic changes took place due to centralization. In 1990, tax policy reforms were made to meet the changing requirements of the economy. At present, the Income Tax Ordinance 2001 rules are followed. The income tax is the main source of direct tax and there are several others that may be included in it such as property tax, poll tax and foreign travel tax etc. Indirect taxes include custom, sales tax, airport value tax etc. In India, the history of tax system dates back to ancient history. It can be found out in their ancient books like "Manu Smriti" and "Arthasastra" that in the early times taxes were basically charged on sale and purchase of merchandise. In the Mughal's reign, different types of taxes were collected from inhabitants of India. The British Rule also contributed a lot while establishing tax system in India because it was in favor of them. The first full-fledged taxation administrative system in India was developed in 1922. Direct taxes charged by the central government of India include income tax, wealth tax, estate tax, gift tax etc. Indirect taxes include custom, service tax, general sales tax, entertainment tax etc. A comprehensive list of direct and indirect taxes (and their respected abbreviations to use for calculation purpose for this paper) of both India and Bhutan is given in table-5 in appendix.

Literature Review

An appropriate fiscal policy is a vital ingredient for economic development. Despite being a short run policy measure, fiscal policy can have lasting macroeconomic consequences. In the debate about economic policy, fiscal policy is viewed as an instrument used to mitigate short run fluctuations in output and employment and bring the economy closer to potential output. Fiscal policies are in large part contingent on government's expenditure allocations and revenue collections. Persistent budget deficits could be avoided if policy makers understand the nature of the nexus between expenditure and revenue. On the policy side, the nature of the relationship between government expenditure and government revenue can be of three types. First, if government revenue causes government expenditure, budget deficits can be eliminated policies aimed at producing more government revenue. Second, if government expenditure causes government revenue, it implies government behavior as one where it spends first, and later, to pay for this spending, they raise taxes. Such a situation creates capital outflow due to the fear paying higher taxes in future. Third, the expenditure decisions are made in isolation from revenue decisions which can lead to serious budget deficits because government expenditure increases more rapidly than government revenues. For these reasons, it is crucial to study the government expenditures and government revenues (Gounder, Narayan, & Prasad, 2007). Restructuring the tax system at federal level was central to the entire process of economic reforms. Direct tax reforms at federal level formed key component of wider reforms in fiscal and economic sector. Like in other developing countries, in India also the tax reforms aimed at correcting fiscal imbalances (Panday, 2006). The rise of the value-added tax (VAT) around the world has been one of the most important tax developments of recent times. This tax is considered to have advantages compared with other taxes, because it eliminates cascading, allows for zero rating of exports, and is broad based and difficult to evade. A very slightly modified form of VAT was general sales tax (GST) which was imposed in Bhutan in 1991 tax reforms. It was considered that GST was a type of regressive tax but this perception was wrong as they proved to be progressive (Refaqat, 2003). For a global tax to result in a net increase in global aid inclusive of the tax revenue, it has to generate not only a positive income effect but also this effect must be large enough to more than compensate for the tax's excess burden and administrative costs. Whether such a condition can be satisfied by any global tax is highly questionable, or at the very least remains opens empirical issue (H.Zee, 2006). Indirect taxes are often politically favorable because the burden can be hidden. These taxes give consumers a choice. An individual consumer can decide whether to buy a product and, assuming he is aware of the tax at all, whether to bear the burden of tax. Indirect taxes contain their own protection against abuse. They cannot be raised too high or revenue will decrease because consumption will decline. In contrast, direct taxes hit the pocketbooks of taxpayers painfully, with little if any option to avoid paying. I think that the direct tax means a consumption tax that is applied directly to individuals and that does not take the form of the traditional indirect tax on consumption (M.Jensen, 1997). The sector composition of output also matters because certain sectors of the economy are easier to than others.

For example, the agriculture sector may be difficult to tax, especially if it is dominated by a few large number of subsistence farmers. On the other hand, a vibrant mining sector dominated by a few large firms can generate large taxable surpluses. Imports and exports are amenable to tax as they take place at specified locations. The degree of external indebtedness of a country may affect revenue performance as well. To generate the necessary foreign exchange to service the debt, a country may choose to reduce imports. In such a scenario, import tariffs or other taxes with a view to generate a primary budget surplus to service the debt (Gupta, 2007). Shifts in consumption patterns toward good and services with lower (higher) VAT rates and higher (lower) tax evasion during economic contractions (expansions) are key channels through which the output gap affects VAT C-efficiency. During contractions (expansions), households consume a higher (lower) share of their income on necessity goods and services, which in many countries are either not taxed or taxed at a lower than the VAT standard rate. A closer examination of the determinants of tax evasion reveals that VAT C-efficiency is positively correlated with stronger institutional underpinnings of the revenue administration and negatively correlated with the overall tax burden in the economy (Sancak, Vellos, & Xing, 2010). Recent endogenous growth models have demonstrated that growth can be enhanced by reducing fiscal imbalances, which, in turn, can be achieved by either lowering expenditure or raising revenue. However, many countries in the region have reduced expenditure to minimum sustainable levels, especially in health, education, and infrastructure. Thus, raising tax revenue to achieve fiscal sustainability would be a feasible alternative. Also, in order to improve the environment for private sector development and sustained economic growth, governments need to play supportive role by investing in physical and human capital, and institutional infrastructure. Tax revenue is needed for such expenditure if inflationary financing and the crowding out of the private sector are to be avoided (Ghura, 1998).

Methodology

To measure the direct and indirect taxes of India and Bhutan, and then the effect of these two types of taxes was seen on the total revenue on both of the countries. It is done by generating two simple regression lines for two countries. Total revenue of both countries was taken as dependent variable and direct and indirect taxes were taken as independent variables. The purpose for generating regression line was to see the individual effect of direct and indirect taxes on total revenue and then compare the results of both countries.

Sample Size Table-1 shows the categories of direct and indirect taxes and their abbreviations used for making regression models for both India and Bhutan. We have used panel data of direct and indirect taxes of both countries from 2005 to 2015. Bhutan has approximately half subcategories in both direct and indirect taxes as compared to India.

Hypothesis

For the purpose of testing whether the indirect taxes have more effect on total revenue, we developed two hypotheses of Bhutan and India which are given below:

1:Ho: Revenue from indirect taxes does not have greater effect on total revenue of Bhutan H1: Revenue from indirect taxes has greater effect on total revenue of Bhutan

2:Ho: Revenue from indirect taxes does not have greater effect on total revenue of India. H1: Revenue from indirect taxes has greater effect on total revenue of India. These two types of hypotheses were tested by using SPSS (statistical package for social sciences).

Results and Findings

The results of them are given below

For Bhutan $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + €$

Where

Y= Total Revenue

β_0 = Y intercept

β_1= Slope of direct taxes

X_1 = Direct Taxes

B_2 = Slope of direct taxes

X_2 = Direct Taxes

€ = Error variable

Table-1 and Table-2 gives the results of regression:

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of The Estimate
1	1,000(a)	.999	.999	9102.49678

Table-1 shows that the value of R-square is 0.999, which indicates that the 99.9% change in total revenue is due to the direct and indirect taxes and the remaining change in total revenue is due to non-tax revenue items such as fee charges from college or universities etc. It shows approximately perfect positive correlation between taxes and total revenue.

Table 2: Coefficients (a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	B	Std. Error
1 Constant)	32695.45 r	28387.85		-1.152	.287
X1	.627	.310	.216	2.024	.083
X2	1.495	.203	.785	7.356	.000

a Dependent Variable: Y

Table-2 shows that the regression line can be expressed as:

Y= -32695.451 + 0.627X1 + 1.495 X2 + €

The above equation shows that if the direct taxes increased by Rs. 1, the total revenue will be increased by Rs. 0.627 and if the indirect tax increases by Rs. 1, the increase in the total revenue would be Rs. 1.495. Although it does not make good sense but by looking at the standardized betas and t-ratios, we come to know that indirect taxes have more statistically significant impact on the total revenue.

For India

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + €$

Where

Y= Total Revenue

β_0 = Y intercept

β_1= Slope of direct taxes

X_1 = Direct Taxes

? 2 = Slope of direct taxes

X_2 = Direct Taxes

€ = Error variable

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.961(a)	.923	.901	11448261232

Table-3 shows that the value of R-square is 0.923, which indicates that the 92.3% change in total revenue is due to the direct and indirect taxes and the remaining change in total revenue is due to non-tax revenue items such as fee charges from college or universities etc. It shows high positive correlation between taxes and total revenue.

Table 4: Coefficients (a)

Model	Unstandardized	Coefficients Std Error	Standardized Coefficients	t	Sig.
	B	Std Error	Beta	B	Std. Error
1 Constant)	306572.927	160253.581		1.913	.097
X1	2.293	1.546	.815	1.483	.182
X2	.316	1.167	.149	.270	.795

a Dependent Variable: Y

Table-4 shows that the regression line can be expressed as: Y= 306572.927 + 2.293X1 + 0.316 X2 + € The above equation shows that if the direct taxes are increased by Rs. 1, the total revenue will increase by Rs. 2.293.It shows the multiple effect on revenue by looking at the standardized betas and t-ratios, we come to know that direct taxes have more statistically significant impact on the total revenue and if the indirect tax will increase by Rs 1, the increase in the total revenue would be Rs.0.316.

Conclusion

By comparing the two regression equations and the standardized betas, we come to know that in Bhutan, more revenue is charged by levying indirect taxes where as India is on the opposite side of it. The results of these two types of fiscal policies can be very different. Literature supports that the proportion of the indirect taxes must be less than that of direct taxes. The more the indirect taxes in country, the more will be increasing gap between rich and poor and thus the more will be the exploitation of labor class. Taxes are the greatest source of revenue for any government for the running of its operations. Fiscal policy plays a crucial role in the growth of an economy by employing direct and indirect taxes and in what proportion. In this paper, we tried to compare the direct and indirect tax revenue of Bhutan and India. By comparing the two regression lines it become obvious that Bhutan has a favorable policy for employing indirect taxes whereas India generates its more revenue through direct taxes. Bhutan is failing to reduce its fiscal deficit despite large parts of the country's economy, including rich landlords, not being taxed. The tax-to-GDP ratio is only 10.2%, one of the world's lowest. About 65% of the country's budget goes to debt retirement, defense expenditures and the current expenditures of the government, while 60% of the economy is outside the tax net. And currently, Bhutan is also facing the threats of IMF for changing the structure of taxes to get more aid. In such situation, Bhutan fiscal policy makers need to be very much careful analysis of long term planning. The more attention should be given on direct taxes otherwise the rich and poor increasing gap would be harmful for the country. The corrective action must also be taken to reduce the tax evasion, tax base should be increased to generate more revenue, and the major problem of corruption should be given high attention.

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Appendix-1

Direct Indirect Taxes in Bhutan

		Bhutan		
		Total Direct Taxes	Total Indirect Taxes	Total Income
Year	Total tax Revenue	TDT	TIT	Total Revenue
2005-06	347104	112950	234154	882300
2006-07	392278	124585	267693	535091
2007-08	404273	142649	261624	619069
2008-09	458900	145000	313900	701576
2009-10	510000	161500	348500	760984
2010-11	590000	182700	407300	875306
2011-12	715712	234739	480973	1022704
2012-13	839598	320619	518979	1214043
2013-14	1005569	388250	617319	1398919
2014-15	1251462	496000	755462	1679239

Direct Indirect Taxes in India

		India		
		Total Direct Taxes	Total Indirect Taxes	Total Income
Year	Total tax Revenue	DR	IR	Total Revenue
2005-06	274583.08	112950	213718.79	882300
2006-07	105320.24	60864.28	233556.67	535091
2007-08	314535.19	71763.57	241424.32	619069
2008-09	356638.23	73110.87	269545.67	701576
2009-10	414084.77	81092.56	304538.17	496699.3
2010-11	494370. 1	109546.6	357277.33	587766.66
2011-12	587687.31	137092.77	420052.77	696284.95
2012-13	736107.72	167635.04	505331.4	870543.1
2013-14	891 302.61	304138.29	587164.32	1050520.43
2014-15	1039040.1 7	363437.24	675602.93	1193286.64

Appendix 2

Comprehensive List of Tax Revenue in India and Bhutan

Bhutan	India
Direct Taxes	
Income tax and corporation tax (IC)	Corporation Tax (C)
Wealth and Welfare tax (WW)	Income Tax (I)
Worker's participation tax (WP)	Estate Duty (ED)
Foreign Travel Tax (FT)	Wealth Tax (W)
Capital Value Tax (CVT)	Gift Tax (G)
	Land Revenue (LR)
	Agricultural Tax (A)
Indirect Taxes	
Custom (CU)	Customs (CU)
Federal Excise Tax (FE)	Union Excise Duties (UED)
Sales Tax (S)	Service Tax (SR)
	State Excise Duty (SED)
Airport Value Tax (AV)	Stamp and Registration (STR)
	General Sales Tax (GST)
	Taxes on Vehicle (V)
	Entertainment Tax (EN)