Nexus Between Tax Buoyancy and Economic Growth Evidence from India[1]

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Abstract

This paper examines the trends in fiscal revenue collections and the relationship between tax buoyancy and economic growth. In recent years, the responsiveness of revenue growth in relation to economic growth is a growing concern as we witness staggered tax revenue growth with the convergence of percentage contribution of direct taxes to the aggregate revenue with indirect taxes. Using the Log OLS model, for the period between 2000-2018 the variability in tax revenue due to the change in economic growth as measured by GDP was verified. We confirm the test results using M-estimation Robust Log-OLS. We critically appraise the policy interventions and administrative initiatives taken up to improve the buoyancy rate and suggest ways to enhance the voluntary tax compliance rate in the country. The study's findings show a significant relationship between tax revenue and economic growth, but it does not necessarily improve the tax buoyancy rate.

I. Introduction

OVER THE LAST two decades, India has witnessed several revisions in tax policy to enhance tax revenue collections and tax buoyancy. Tax buoyancy is imperative for a developing nation as it lays the foundations for framing revenue policy and assessing whether tax resources are in line with economic activities. It also envisages the structural policy interventions needed periodically to enhance the compliance rates. During this period

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Annexure I
Table AIA
Descriptive Statistics

Variables	N	Min	Max	Mean	SD
Direct Tax to GDP Ratio	18	0.030	0.060	0.050	0.012
GDP Growth Rate	18	0.080	0.190	0.127	0.035
Indirect Direct Tax to GDP Ratio	18	0.040	0.060	0.049	0.007
Direct Tax % Contribution to total revenue	18	.363	.608	.496	.075
indirect Tax % Contribution to total revenue	18	.390	.640	.505	.075
Direct tax Revenue growth rate	18	.013	.393	.176	.101
Indirect tax Revenue growth rate	18	-.095	.409	.130	.121
Direct Tax Buoyancy	18	1.392	2.590	0.150	0.740
Indirect Tax Buoyancy	18	1.078	3.764	-0.644	1.006

Source : Self Computed

Table AIB
Percentage of Tax Contribution to Total
Tax Revenue, Revenue Growth Rate and Tax Buoyancy Rate

Financial Year	% Contribution to total tax Revenue		Revenue growth rate		GDP growth Rate	Direct Tax to GDP Ratio	Indirect Tax to GDP Ratio	Direct Tax Buoyancy Factor	Indirect Tax Buoyancy Factor
	Direct Tax	Indirect tax	Direct tax	Indirect tax					
2000-01	36.31%	64%	19.39%	6.47%	7.70%	3.25%	5.70%	2.32	1.44
2001-02	37.10%	63%	1.31%	-2.08%	8.50%	3.03%	5.14%	0.15	-0.25
2002-03	38.52%	61%	20.07%	13.03%	7.76%	3.38%	5.39%	2.59	1.68
2003-04	41.42%	59%	26.48%	12.07%	12.06%	3.81%	5.39%	2.19	1.00
2004-05	43.72%	56%	26.34%	15.02%	17.70%	4.10%	5.27%	1.49	0.85
2005-06	45.32%	55%	24.44%	16.62%	13.92%	4.47%	5.40%	1.76	1.19
2006-07	48.80%	51%	39.32%	21.16%	16.28%	5.36%	5.62%	2.42	1.30
2007-08	52.97%	47%	36.56%	15.52%	16.12%	6.30%	5.60%	2.27	0.96
2008-09	55.34%	45%	6.20%	-3.44%	12.89%	5.93%	4.79%	0.48	-0.27
2009-10	60.78%	39%	13.25%	-9.46%	14.69%	5.85%	3.78%	0.9	-0.64
2010-11	56.48%	44%	17.97%	40.90%	18.84%	5.81%	4.48%	0.95	2.17
2011-12	55.82%	44%	10.76%	13.74%	17.40%	5.48%	4.34%	0.62	0.79
2012-13	54.17%	46%	13.16%	20.96%	12.25%	5.53%	4.68%	1.07	1.71
2013-14	56.32%	44%	14.24%	4.74%	12.28%	5.62%	4.36%	1.16	0.39
2014-15	56.16%	44%	8.96%	9.66%	10.45%	5.55%	4.33%	0.86	0.92
2015-16	51.03%	49%	6.63%	31.05%	8.25%	5.47%	5.25%	0.8	3.76
2016-17	49.66%	50%	14.54%	21.02%	11.91%	5.60%	5.67%	1.22	1.76
2017-18	52.29%	48%	17.99%	6.24%	9.96%	5.98%	5.46%	1.81	0.63

Source : Self Computed

Table AIC
Heteroscedasticity Test: Breusch-Pagan-Godfrey

Variables	DT	IDT	ATR	DTBF	IDTBF
F-statistic	1.072926	2.284613	0.358486	2.95667	1.118745
	0.3157	0.1502	0.5577	0.1048	0.3059
Obs*R-squared	1.131187	2.249052	0.394459	2.807458	1.176337
	0.2875	0.1337	0.5300	0.0938	0.2781
Scaled explained SS	0.685251	1.93349	0.432986	2.375838	1.12549
	0.4078	0.1644	0.5105	0.1232	0.2887

Notes :   Regressor: LNGDP,
           Null   :   Homescedasticity,
           Alternate :   Heteroscedasticity,
           Criterion :   Accept Null if Obs*R-squared P>.05.

Source : Self Computed