

A New Global Measure of Tax Progressivity

Pawan K. Aggarwal

The study proposes a new global measure of tax progressivity in terms of inequality indices of pre-tax income and tax defined on the basis of concept of equally distributed equivalent level of income. It is found invariant to tax scale. While the existing measures in this class are found more suitable as indicators of redistributive impact of the tax, the new measure seems more suitable as measure of tax progressivity or graduation in the tax schedule. The new measure along with the average tax rate is found to help in understanding changes in redistributive impact of the tax. The study reveals the comparison of tax progressivity or redistributive impact over time or across different tax schedules has to be associated with the measure of progressivity or the welfare function associated with the relevant inequality indices.

1. Introduction

Progression in the income tax rate schedule implies departure from proportionality in the distribution of tax burden. It is characterised generally by an increasing average tax rate with income. There are several measures of tax progression which can be classified into three categories, namely, local (also known as structural or scheduler), global (also known as summary or distributional), and hybrid. A local measure constructs a schedule of tax rate or tax liability or post-tax income along the income scale. 1/ A global measure takes the form of a single number and it focuses, in general, on the distributional aspect of the tax in terms of tax liability or pre-and post-tax incomes. A hybrid measure combines the character of both local and global measures. 2/ This study focuses on global measures of tax progressivity.

Various global measures of tax progressivity, in common use, can be further classified into two broad categories : (i) those based on inequality indices of tax and pre- and post-tax incomes