

A New Index of Poverty : An Improvement in Thon Index

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Sen (1976) broke new grounds in the area of measurement of poverty. He proposed two test axioms of monotonicity and transfer for examining poverty measures. However, Sen's own index does not pass this transfer axiom. Thon (1979) proposed an index that satisfies the transfer axiom. But Thon's index does not pass some of the normalisation axioms proposed by Sen (1976) or Takayama (1979). In this paper I propose to develop an index which satisfies the transfer axiom as well as a set of normalisation axioms including those proposed by Sen and Takayama.

[Key Words : Index of Poverty, Transfer Axiom, Normalisation Axioms]

Introduction

A number of modifications have been proposed in Sen's index of poverty. Sen (1981, p. 194) has accepted that several of the variants suggested are certainly permissible interpretations of the common perception of poverty and held that there is nothing defeatist or astonishing in acceptance of this as pluralism is inherent in the nature of the exercise.

However, the issue raised by Thon (1979) is substantial. He points out that Sen's index does not satisfy the transfer axiom proposed by Sen himself in the same paper. As a matter of fact, the weakness was discovered by MacLeod who had also suggested a weaker version of the original transfer axiom. In subsequent publications (1977, 1979, 1981), Sen opted to weaken the test axiom rather than modify the index itself. Thon (1979) was sore over it. He developed an index which satisfies the transfer axiom.