

Is there a theoretical basis for the current chain linking algorithm?

Question

Is there a theoretical basis which implies that the current chain linking algorithm is the only one that can be used?

The question is about the theoretical – economic or statistical – rationale for the current chain linking algorithm (CCLA) and whether such a rationale exists that implies the current algorithm is the only algorithm that can be used.

The question is not about the practical considerations involved in developing or implementing a different algorithm.

Context

In the present circumstances there are broadly two contexts which make this question of immediate importance.

The first is the use, or misuse, of the term “bias” in relation to the elementary aggregate formulae used in price indices. If there is no theoretical rationale which implies that the CCLA is the only one that can be used then issues of incompatibility between that algorithm and the elementary aggregate formulae are related to the CCLA and not the formulae. In this case the statistical term bias should not be used in relation to elementary aggregate formulae in relation to the CCLA.

The second issue is the practical one of developing a new Household Index. It would be inappropriate to restrict the choice of elementary aggregated formulae under a false pretext if there was no theoretical rationale for the CCLA. That is not to advocate any particular formula for the index.

Finally if there is no theoretical rationale which implies that the CCLA is the only one that can be used then on its own this would not require changing the algorithm for existing indices.