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Title: The general class of multilateral indices and its two special cases

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Abstract:

Multilateral index methods seem to be the best choice in the case of dynamic scanner data sets. These indices work on a whole time window and are transitive, which is a key property in eliminating the chain drift effect. Following the so-called identity test, however, one may expect that even when only prices return to their original values, the index becomes one. Unfortunately, the commonly used multilateral indices (GEKS, CCDI, GK, TPD, TDH) do not meet the identity test. The paper discusses the proposal of a general class of multilateral indices, where each element (index) from this class satisfies the identity test and most of other tests. In particular, the paper discusses two new multilateral indices belonging to the aforementioned index class. In an empirical and simulation study, these indices are compared, inter alia, with the SPQ index, which is relatively new and also meets the identity test. Analytical considerations as well as empirical and simulation studies confirm the high usefulness of the two proposed indices.

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