

# Inter-Temporal Poverty Measurement: Tradeoffs and Policy Options

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## 1 Outline of Paper

### 1.1 Introduction and Context

The debate on poverty measurement has made steady progress since Sen's (1976) seminal contribution and economists appear to have reached a consensus on the desirable properties of poverty measures (e.g. Foster et al, 1984). Recent further theoretical contributions to the literature on poverty measurement have included extensions into multiple dimensions (e.g. Atkinson (2003), Bourguignon and Chakravarty (2003)) and also multiple time periods. The increasing availability of panel data, when we observe the same people over multiple time periods, opens up the possibility of measuring "chronic poverty", which has been developed in recent contributions by Jalan and Ravallion (2000), Calvo and Dercon (2007) and Foster (2007). This is the literature that we seek to contribute to, building on these recent contributions, and recognising that in addition to chronicity of poverty there are other inter-temporal characteristics including variability and mobility that multi-period data enables us to measure.

In static poverty measurement the key issues involve weighting different individuals' depth of poverty. With repeated observations, we can discuss *duration*, *depth* and *variation* of experienced poverty, leading to many different possible orderings. The literature thus far has made important advances in developing potential new measures of duration poverty, and we wish to generalise these, explicitly discussing some of the tradeoffs that exist between properties of the potential new measures, and conversely identifying properties which may be specified entirely independently. For example, we identify a necessary tradeoff between the poverty duration sensitivity of any measure and the degree of substitution of welfare between time periods which it permits – an important matter in the context of inter-temporal poverty measurement. Naturally, the particular combination of properties that a policymaker will choose will depend on which characteristics of inter-temporal poverty she is seeking to measure.

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