

## **Abstract for “Cross-Sectional and Longitudinal Equivalence Scales for West Germany Based on Subjective Data on Life Satisfaction”**

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Equivalence scales are an essential prerequisite in distributional analyses, e. g., for measuring poverty, as they make households comparable which may differ from each other concerning size and composition.

In this context, longitudinal equivalence scales contrast to cross-sectional equivalence scales. While, in an age-related perspective, the latter scales are calculated on cross-sectional data representing needs and economies of scales for different age groups in a certain period of time, longitudinal scales refer to scale values for age cohorts over one's life cycle. To be consistent with microeconomic theory, cross-sectional scales correspond with intratemporal utility functions and longitudinal scales with intertemporal utility functions (see Betti, 1999; furthermore, see Pashardes, 1991, or Banks, Blundell, and Preston, 1994). Typically, in distributional analyses or for creating needs-based socio-political schemes, cross-sectional scales are used but this neglects intertemporal aspects of well-being over the individual life cycle (see Betti, 1999: 5) – especially, this shortcoming corresponds with the neglect of cohort-specific effects. As Fachinger (2001) has shown, there are strong hints concerning such life-cycle effects in Germany – primarily regarding consumer behaviour, i. e., regarding needs. Furthermore, cohort-specific differences, e. g., between age groups with respect to organizing household production might exist which might result in differences of economies of scale (as the second main element of concrete equivalence scale values besides needs). Also, if we interpret the economic concept of utility in a broader sense as “happiness” or “life satisfaction”, empirical evidence (see Yang, 2008, or Fukuda, 2012) demonstrates that cohorts might be different regarding such utility categories.

Besides the decision for cross-sectional versus longitudinal equivalence scales, a further distinction in the context of equivalence scales is the one between constant, i. e., income-independent scales on one hand and variable, i. e., income-dependent scales on the other hand. Usually, in well-being studies, constant equivalence scales are used but there are many good reasons – such as (relatively) decreasing accommodation costs with respect to an increasing income – to use variable scales (see Muellbauer and van de Ven, 2004, or Faik, 2012). Those scales, typically, have higher values for the low incomes and lower values for the higher incomes which implies increasing values on a diminishing scale over the entire range of incomes.

Referring to such relationships, the present study calculates variable, cross-sectional as well as longitudinal equivalence scales on the basis of the German 1984-2010 Socio-Economic Panel (SOEP) database. The paper's methodology follows the “individual variant” for calculating subjective equivalence scales using “life satisfaction” as a proxy variable for “utility”. The cross-sectional scale estimates are characterized by relatively low scale values which is typical for the subjective scale approach. As a further main result, the estimated longitudinal equivalence scales reveal some but rather slight cohort-specific scale differences. Especially, this finding points to the need for more research activities in this strand of social science research. The latter must be emphasized since equivalence scales are very important for social policy. Specifically, this holds true for longitudinal scales in order to capture cohort

effects and, thus, to deal with intra- and intergenerational aspects of well-being (and corresponding differences).