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**Titel:** The Consistency of Cross-sectional and Longitudinal Data when Measuring Income Levels, Inequality, and Mobility in EU-SILC Countries

### **Abstract**

The EU-wide survey “Statistics on Income and Living Conditions” (EU-SILC) has high international relevance for social science research and policy advice: findings based on these data provide the foundation for social reports to combat income inequality and poverty. It is therefore crucially important to ensure that the data are of the highest quality and international comparability. This paper is aimed at identifying unexpected developments in income levels, income mobility, and inequality in the EU-SILC data. In addition to a pure cross-sectional perspective, special attention is given to the consistency between cross-sectional and longitudinal findings. This is an important issue since the EU-SILC consists of a rotating panel – which is an aspect that has not been sufficiently investigated so far. First, we describe the (median) levels and development of income and inequality from 2005 to 2008 in each country on a cross-sectional basis. We observe largely consistent increasing real incomes in all countries – and a more moderate increase in the Mediterranean, continental, and Scandinavian countries than in the Baltic and transition countries. In contrast, the developments in poverty rates (FGT(0)) and inequality (Gini-coefficient) are striking, especially in the transition countries, where the observed indicators show strongly divergent results. Also several of the Scandinavian and continental countries show exceptional trend reversals in contrast to their fellow country group members. In the second step, we examine the consistency of the various EU-SILC data sets by comparing cross-sectional income levels and inequality results with findings based on the two-year longitudinal samples (2005/2006, 2006/2007 and 2007/2008). Additionally, we compare the inequality or poverty measures of two longitudinal samples (e.g., 2005/2006 and 2006/2007) for one year (2006), which brings a problematic feature to light. Although the data represent nearly the same population and the same year, several countries show strongly differing results, and in almost no country are the results identical. Especially poverty rates differ significantly. Finally, we proceed to mobility analyses on the basis of longitudinal data, which is the main focus of our paper. We consider two income mobility measures, the Shorrocks’ equalization measure and Matrix mobility, and examine the share of the population that moved out of or into poverty. We find that the mobility measures in several countries show a high degree of variability over the years.