

# Income Inequality, Cohesiveness and Commonality in the Euro Area: A Semi-parametric Boundary-free Analysis

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## Abstract

The cohesiveness of constituent nations in a confederation such as the Eurozone depends on their equally shared experiences. In terms of household incomes, commonality of distribution across those constituent nations with that of the Eurozone as an entity in itself is of the essence. For the most part income classification has proceeded by employing “hard”, somewhat arbitrary and contentious boundaries. Here, in an analysis of Eurozone household income distributions over the period 2006–2015, mixture distribution techniques are used to determine the number and size of groups or classes endogenously without resort to such hard boundaries. In so doing, some new indices of polarization, segmentation and commonality of distribution are developed in the context of a decomposition of the Gini coefficient and the roles of, and relationships between, these groups in societal income inequality, poverty, polarization and societal segmentation are examined. What emerges for the Eurozone as an entity is a four class increasingly unequal polarizing structure with income growth in all four classes. With regard to individual constituent nation class membership, some advanced, some fell back with most exhibiting significant polarizing behaviour. However, in the face of increasing overall Eurozone inequality, constituent nations were becoming increasingly similar in distribution which can be construed as characteristic of a more cohesive society.

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