



Jakub Rybacki, Tamara Bińczak, Filip Kaczmarek

Warsaw School of Economics

jakub.rybacki@gmail.com

Is HICP really harmonized? - problems with quality adjustments and new products

The problem of accurate inflation measurement is far more frequently raised in the USA, than in the European Union (EU). In 1996 the Boskin Commission identified four sources of the potential biases in the Consumer prices index (CPI) calculation related to the substitution of products and outlets, treatment of new products (which enter into the consumer basket with some lag) and the quality adjustment process. Similar problems are visible in the EU with even greater magnitude, especially when it comes to the latter factor. Currently, Harmonized Index of Consumer Prices (HICP) methodology does not ensure standardization of quality adjustment process, new products entry or the analysis of missing prices. As a result, significant cross-country differences are observable due to the methodological discrepancies between the National Statistical Offices. Based on the principal component analysis (PCA) we identified major idiosyncratic deviations in the prices of most volatile categories including: Clothing & Footwear, Telephone and telefax equipment and Audio-visual, photographic and information processing equipment. We found that Poland and Ireland annual HICP dynamics is downward biased by respectively 0.3pp and 0.2pp due to inaccurate calculation of seasonal clothing (i.e. winter coats) prices. On the other hand, Austrian and Norwegian figures are upward biased by 0.1pp on the telecommunication equipment. Finally, we have observed strong dispersions in dynamics of consumer electronics prices. Such differences account for 0.08pp (information processing equipment) and 0.06pp (sound recording and processing



equipment) of unjustified disparity in the annual HICP inflation between countries with the highest and the lowest dynamics.

JEL classification: E31, C5

Keywords: HICP, quality adjustment, hedonic regression, New goods bias, seasonal products treatment.