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PPP-based stratification of CIS–EU/OECD economies

The CIS countries form one of six regions within the Global International Comparison Program (Global ICP). The CIS countries participated in both full size Global ICP cycles – those of 2005 and 2011 – and are participating in the current third cycle of 2017. A regional comparison was carried out by the CIS countries basing on the 2014 data – the 2014 CIS ICP cycle. The CIS-Stat acts as a regional coordinator of the ICP works.

A special PMC-procedure (“partially-multilateral comparison” procedure) was elaborated to link the CIS PPPs to the EU/OECD ones. For the first time, the PMC-procedure was implemented for linking the 2014 CIS and EU/OECD comparison results. This allowed getting a methodologically well harmonized set of PPPs for an interesting, diversified and quite large (54 countries) group of economies – the combined CIS–EU/OECD group. This provides a wider option to analyze the CIS economies in the context of the economic policy elaboration.

The scatter plot relating GDP per capita and PLI for the combined CIS–EU/OECD group perfectly demonstrates the Penn effect. Analyzing scatter plots for these economies’ other PPP-based macroeconomic indicators shows several important tendencies too. The ratios reflecting consumer behavior, GDP structure, as well as some other indicators have stable tendencies to change in line with the GDP per capita level. In this context not only common tendencies for the whole group of economies can be mentioned, but sub-tendencies can be argued too: weaker and stronger economies have different angles of inclination of detected common tendencies. To identify subgroups including the economies with approximately similar structural features within the common set of CIS–EU/OECD economies, an approach using the PPP-based data is proposed in the paper; the stratification procedure relies on the scatter plots’ quantitative analysis. In theory, sophisticated methods, e.g. like LOESS, might be considered as being appropriate for this task. But in practice this is not an indispensable requirement: (i) strict estimates are not needed, just tendencies’ assessments are being looked for; (ii) simple linear trends are exhaustive for the tendencies’ analysis; (iii) the available CIS–EU/OECD data set is not large enough for applying sophisticated calculation methods. A special “moving linear segment” procedure is proposed in the paper for identifying “inflection points” separating different subgroups

Identifying the similarity subgroups of economies is an instrument which can be used in assessing possible systemic effects of economic policy measures. While considering proposals entailing changes in GDPpc level, the analysis of similar economies would help to indicate the related structured results to be expected. Comparing PPP-based estimates of economic indicators provides a productive tool for structural analysis and forecasting. Practical quantitative results are presented in the paper

