## SECTION 5. DEVELOPMENT OF PRODUCTIVE POTENTIAL AND REGIONAL ECONOMY

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## THE STRUCTURE AND DYNAMICS OF DIFFERENTIATION OF THE SOCIO-ECONOMIC DEVELOPMENT OF REGIONS OF UKRAINE

Countries that have a territorial and administrative division objectively face a problem of disproportionate socio-economic development of regions. Regional inequality can lead to a slowing down of economic growth, an increase in social tension. In solving these problems, the main role should be played by an efficient regional policy of the state, which development should be based on a complex investigation of the structure and dynamics of the level of differentiation of the socio-economic development of regions of the country.

The article proposes a methodology of analysis of differentiation of the socio-economic development of regions with the help of statistical indicators of differentiation depending on the type of distribution of statistical indicators.

A complex research of the structure and dynamics of the level of differentiation of the socio-economic development of regions of Ukraine in the 2005–2015 years is conducted. For the purpose of determining the correct set of adequate descriptive statistics and method of statistical analysis, there is conducted a research of the character of the distribution of indicators using graph and analytical methods. The analysis was conducted in two stages (for the full sample of data and sample of data except for Kyiv).

All the calculations are made using the system of statistical data processing and programming R. Scripts are in the programming language R, which were developed and used for conducting research and can be used for conducting similar researches of any samples of data of an analogous structure.

The high value of the coefficient of variation indicates the extreme heterogeneity of information and the need to exclude maximum values for a more accurate analysis. Results of the research done evidence

that there are "anomalous" indicators in the sample, i.e. significant removal of several values of the indicators to the right of the average, the concentration of the main part of indicators at a small interval, and the shift of the distribution of the values of indicators to the left, indicating the predominance of poorer regions and the presence of regions, which economic indicators are significantly different from others.

The conducted analysis gave an opportunity to generalise data on the structure and level of differentiation, reveal groups of indicators that have a different level of differentiation and dynamics of its changes.

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