

# EVALUATION FOR THE SPACE INTERACTION OF THE TERRITORIAL ECONOMIC SYSTEMS OF THE DNIPROPETROVSK REGION BASED OF MORAN'S INDEXES

**Kalashnikova T.M.**

Ph. D (Economics), Senior Researcher,  
Ptukha Institute for Demography and Social Studies  
of the NAS of Ukraine

The level of spatial interaction of territorial economic systems of Dnipropetrovsk region is estimated in this article on the basis of calculations of local and global Moran's indexes. 35 administrative units of the Dnipropetrovsk region, namely 13 cities and 22 districts were considered as a research object. The number of population in the administrative units of the Dnipropetrovsk region was used as a characteristic of the economic activity of the territory. Thus, the idea of the spatial structure for the territorial economic systems of the Dnipropetrovsk region is formed in this publication.

Calculations of spatial autocorrelation based on the calculations of the local and global Moran's indexes with the use of methods of full and boundary neighborhood gave an opportunity to identify three territorial clusters. First, the cluster 1, formed by the core of Dnipro and two towns satellites-counterweights of the core, which are Kamyanske and Synelnykove. The cluster also includes Dnipropetrovsk district (the zone of strong influence of the core), Krynychanskyj, Solonyanskyj, Synelnykivskyj, Novomoskovskyj, Mahdalynivskyj, Petrykivskyj districts, as well as Novomoskovsk as the zones of the medium influence of the core; Tsarichanskyj, Verkhno-Dniprovskyj, Pyatihatskyj, Yuryevskyj dis-

tricts (periphery). Secondly, the cluster 2, organized by the core of Kryvyj Rig. This cluster also includes Kryvorizhskyj district (the zone of strong influence); Shyrokyivskyj and Sofiyivskyj districts (zone of medium influence of the core); Apostolivskyj, Pyatykhatskyj, Verkhno-Dniprovskyj districts (periphery). Thirdly, it is a matter of the core that is in the state of formation which is Pavlograd town, in the zone of strong influence of which is Pavlohradskyj district. At the same time Yuriyivskyj, Petropavlivskyj and Vasykivskyj, Pokrovskyj districts are in the zone of medium influence of this core. The periphery are Mezhyvskyj district and Ternivka town.

The question of what core (the core of Dnipro or the core of Kryvyj Rig) strongly influences on Nikopolskyj and Tomakivskyj districts needs additional researches.

The towns Zhovti Vody, Vilnohorsk, Pershotravensk, because of their weak spatial relationship, will be attributed to zones outside the zones of the influence of any core. Such areas require additional attention. The work on the elimination of buffer zones, that are beyond the influence of nuclear development and have no sufficient resource for growth, should become a new direction of human development policy and require appropriate scientific support.