

# **Quantum and tempo of population ageing process in the twelve countries of the former Soviet Union: Challenges, opportunities and public policies**

## **Abstract**

Population ageing is an omnipresent phenomenon which brings along unprecedented challenges to socio-economic development, especially to employment, social security and public health sectors. The broad goal of this doctoral thesis was to demonstrate that it is time to recognize the importance of population ageing and its dynamics even in the countries with relatively young population structures and to take urgent action through implementation of corresponding policy interventions in order to mitigate and eliminate the upcoming negative consequences and utilize potential opportunities. Research on population ageing in both more and less developed countries is abundant. However, amidst numerous studies, countries of the former Soviet Union remain largely overlooked. Besides, the quantum and tempo of population ageing have not been adequately addressed in the existing literature worldwide. This research addresses, to the best of our knowledge for the first time, those issues.

Holistic approach to gap analysis was adopted to guide this study. The analysis was performed in three steps. The first step incorporated the identification and analysis of the observed and projected demographic trends in the twelve post-Soviet countries. Quantum and tempo of population ageing was estimated using the new indicator proposed in this study delimiting the process into two main phases based on the proportion of older population.

The results indicate that the highest quantum and tempo is expected to be experienced by Azerbaijan during the first phase and the lowest quantum and tempo is already being experienced by Moldova, Russia and Ukraine during the first phase as well. The homogeneity of the studied countries in the context of population ageing was analysed through hierarchical agglomerative clustering using Ward's linkage. The results show that the timing and extent of age-sex structural shifts taking place during the first phase of population ageing process are closely related and are, on average, more pronounced in Asian countries (excluding Georgia) which are expected to undergo the ageing process with higher quantum and tempo compared to European countries (as well as Georgia) where the ageing process has commenced earlier and with a considerably lower quantum and tempo. During the second phase of ageing, however, the twelve studied countries are projected to experience analogous quantum and tempo of the process.

Within the second step of gap analysis, selected health and social sectors were analysed to identify the already existing and upcoming challenges of population ageing and confronting them to the existence of related policy action in the studied countries. The results reveal a positive correlation

between the pace of demographic changes and the extent of the observed and upcoming ageing related challenges in the post-Soviet countries. The countries which have nearly completed the first phase of population ageing with low quantum and tempo have started experiencing the challenges in health and social sectors. With rapid pace of demographic change estimated to take place during the second phase of ageing in European countries and both phases in Asian countries, however, countries are expected to face greater challenges in health and social sectors analysed in this study.

The analysis has also revealed that major concern about population ageing at the state level among the studied countries does not translate into adoption of clearly formulated comprehensive policy measures related to population ageing. Higher quantum and tempo of ageing during the first phase is associated with weaker policy action.

The final step of gap analysis encompassed ageing related public policy recommendations formulated based on the identified demographic trends and health and social challenges. This research calls for the constructive dialogue between scientists and policy makers and emphasizes the importance of policy action informed by rigorously analysed data from all relevant sectors.

**Keywords:** population ageing, quantum, tempo, former Soviet Union, challenges, opportunities, public policy