Opponent's Assessment of a Doctoral Thesis

Cristina Avram: Demographic transition, population growth, demographic ageing – interrelations and development contexts at the regional level

The theme of the thesis is very topical – population ageing (not only in Czechia) is discussed and analyzed very often. But in this thesis the author investigates the connection of population ageing in Czechia with the demographic transition. The development of demographic transition and population ageing are analyzed not only for Czechia as a whole but also at the regional level – for individual Czech districts corresponding to present administrative division. In this sense the thesis is unique.

The thesis is divided into eight chapters. The introductory chapter is followed by a detailed review of literature concerning fertility and mortality decline and other phenomena of demographic transition as well as of population ageing. Basic concepts and relevant theories are mentioned in the third chapter.

Next two chapters are dedicated to data and methodology. The author used data of the period of almost 200 years coming from several data sources. Of course this original data were not comparable. Some data were missing or incomplete. But the main problem was the fact that several reforms of the administrative division of Czechia took place in the period analyzed. Many relatively sophisticated recalculations should be done to receive estimates of comparable data series for districts corresponding the present administrative division of Czechia. The methodology of this recalculations (using besides other things digital versions of historical maps) should be regarded as one of the major results of this thesis.

The sixth and seventh chapters contain the analysis of demographic transition and population ageing in the individual districts of Czechia. Not only the development of fertility and mortality were analyzed but also the influence of migration (including the massive transfer of the German population after WWII) were taken into account. Four types of development of demographic transition (dependent on the moment of onset and on the speed have been distinguished and similarly four types of the development of population ageing.

The main author's contributions of the thesis are the methodology and recalculation of historical data as well as the unique following analysis of the development demographic transition and population ageing in individual districts of Czechia.

Numerical results of this analysis are presented in a large number of tables, colored graphs and cartograms accompanied by rich verbal commentary. Detailed results are contained in the appendix tables. The extent of references indicates that the author read large amount of books and papers concerning the topic.

The work has been written in good English in very understandable manner, it is well organized and has noticeably good graphic arrangement.

I have some little critical remarks (mainly of "technical" character), e.g.

- (p. 94) The main reason for smaller number of persons in 1950 in Czechia in generations between the age of 5 and 15 was the economic crisis in the late 30th, not the WWII.

- (p. 57. Table 5.1) The numbers denoting the year should be written without thousand separator

- Symbols denoting variables should be written in *Italics*.

Despite these little deficiencies the thesis is very good and satisfies the requirements for doctoral thesis. I recommend to accept it for defense.

In Prague, September 04, 2019

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