Discussion: A Study on the Population Structure of Democratic People's Republic of Korea

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Abstract

Reunification, (considered a 'bonanza'), is often expected to bring economic and social benefits as well as solutions to the population aging problem; consequently, the study on the population structure of North Korea is salient. This paper reviews and talks on the North Korean population and implications. In view of reliability and consistency, the North Korean population appears at an explicit change compared to the past, and shows significant differences from the South, implying that it needs significant resources to integrate during reunification. Therefore, it is opportune to discuss the North Korean population prior to the clamor for the reunification.

Keywords: Reunification cost, hidden data, North Korea, census, life table, mortality pattern.

1. Introduction

South-North reunification is hot issue in Korea. The Korean people have pined for a peaceful reunification; however, the Korean news media and academia are rife with "what if" questions about reunification with North Korea. Reunification has even been defined as a 'bonanza' for the Korean Peninsula.

Positive expectations are desirable; however, vague and overly optimistic anticipation to reunification can be dangerous. Of course, reunification can be a great opportunity as the government insists. When reunification takes place, economic benefits are expected from reduced defense spending and the development of rare earth natural resources in North Korea. Reunification can provide solutions to the aging problem and slow economic growth that both Koreas face. The aging problem is one of the most important reasons for reunification because it is directly related to the social security system (national pension and welfare policy for the elderly). The national pension is determined by population structure and related to the elderly as a receiver but also to the young as subscribers; consequently, it is appropriate to find objective evidence to prepare for reunification.

There has been significant research on the South Korean population in regards to mortality and fertility based on census data and vital statistics (Park *et al.*, 2005; Park and Kim, 2011; Kim *et al.*, 2011; Park *et al.*, 2013a, b; Yoon and Kim, 2011; Eom and Kim, 2013). The projections of national pension are researched based on the current and future sex and age specific population structure (Park *et al.*, 2012a, b). However, there has been limited research on the North Korean population due to the absence of official population data and reliability issues (Spoorenberg and Schwekendiek, 2012; Goodkind *et al.*, 2011; Statistics Korea, 2010; Lee, 2011).

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Despite such limitations of the population of North Korea, it is still necessary and meaningful to make efforts to understand the population of North Korea. Reunification entails significant costs and agreement between South and North Korea - including a significant financial expenditures on North Korea that will be dependent on each population structure. Therefore, it is worthwhile to try to understand the past and current population structure of North Korea in consideration of given data weakness, rather than doing nothing for data defects. Research and discussion on the North Korean population deserves to be welcomed. This paper consists of 3 sections. Section 2 discusses the findings and the implications of the North Korean population. Section 3 includes concluding remarks.

2. The Past and Current North Korean Population

To assess the reliability of population data, the authors first examine the official census of North Korea and argue that it should be adjusted to reflect a hidden population - mainly inferred as military one in Figure 1 (Adlakha and West, 1997; Spoorenberg and Schwekendiek, 2012). For the reliability, they present a reasonable method to reconstruct the population structure and meaningful findings as follows.

First, they indicate that reunification is more than a simple sum of the population of the two Koreas, in view of the population structure. They show that the model life table on mortality of North Korea is totally different from South Korea (Table 1 and Figure 2). It implies that the two Koreas may be considered different countries versus the traditional view of a divided nation. Such different mortality patterns between the two Koreas are expected, considering that the mortality pattern reflects the medical care and welfare system. The results imply that the reunification of the two Koreas would require the massive integration of economic gaps and social/cultural differences. It would be massively expensive to bridge the income gap and social security payments to North Korean residents as the income gap (such as GDP between South and North) is significantly larger than the German case.

Second, they indicate that the mortality pattern between two censuses has been obviously changed - probably due to the 1995 famine. There has also been research on famine-related excess death in North Korea (Robinson *et al.*, 1999; Goodkind and West, 2001; Lee, 2004; Statistics Korea, 2011). They present evidence: the change of mortality patterns between two censuses (Table 1 and Figure 2). Two different model life tables on the life expectancies at birth are used to reflect the famine period: south type for 1994–1997 and east type for 1999–2007. This is opposite to the recent research of Lee (2011). Lee (2011) argued that the trend analysis between two censuses may be meaningless and insisted that the mortality pattern before and after the famine is not significantly different. However, it seems natural that the mortality patterns between two censuses are different in consideration of feature of slow motion famine. Such obvious change after the famine implies that many North Koreans have comprehensive health issues and require medical support that may be more serious due to the recent economic crisis in North Korea.

Of course, it may be hard to be too confident with these findings, in that the reconstructed population data is not exactly calculated by the demographic equation. Unfortunately, the North Korean population cannot be obtained without an estimation procedure due to the absence and distortion of the population data; therefore, it requires an estimate of the hidden data and to adjust the distorted data. Research related to the North Korean population would fatally involve uncertainty or ambiguity; however, research on the North Korean population should not be underestimated or dismissed only due to data flaws if it is based on sound logic and methodology. It would be more helpful for both academic researchers and government policy makers to realistically describe the estimation procedure

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of reconstruction.

3. Concluding Remarks

This research represents a very timely work to reconsider the past and current state of North Korea and to evaluate reunification costs to the application of reasonable and concrete estimates of the North Korean population. This paper raises a topic for the North Korean population, by presenting a logical basis and results for the North Korean Population. Finally, it is appreciate to examine and discuss the North Korean population as it provides insight to the demographical field as well as also other economic and sociological fields based on population. I hope this paper is a trigger for active discussion among academic and governmental experts on sound logic and methodology in regards to the North Korean population.

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