

# On the Basic Nature and Methodological Frameworks of Population Projections

Ryuichi KANEKO and Fusami MITA

Recognition of the indispensability of population projections in planning and implementing policy measures is expanding in many of the developed societies facing the historical demographic transition of the new century. Nonetheless, the rapid and unexpected transformation of people's life courses makes the prospects of population and society highly unclear. In this paper, we explicate and examine the fundamental aspects of population projections and their methodological frameworks in detail so that the users can handle it properly in formulating models of future societies on one hand, and so that developers can expand the projection's capabilities into appropriate directions on the other. First we discussed on the nature of prediction in social sciences in general, using the official population projection as a representative. Whether a population projection will provide a forecast (unconditional prediction) or not depends on whether the assumptions are considered to be a "forecast". In general, however, the projection should be seen as a conditional prediction assuming that the traits of society go as they have gone from past to the present, since no present scientific method tells the future events otherwise. Therefore the prerequisite of official population projections is the combination of the best statistical data available and the available scientific method together with fulfilling the "accountabilities". Secondly the issues of uncertainty and incorporation of socio-economic variables into official population projections are examined with somewhat negative conclusions. Then we briefly reviewed the history of the methodological development from its beginning to the present in relation to demographic background and the needs of the societies. This review reveals that there was a time of difficulty with demographic projections right after the World War II during the demographic transition with baby booms in many of the developed countries. The situation surrounding the projection during that period has some similarity to the present. Finally the new feature of the framework of the latest projection which is tuned for the age of life course transformation and globalization is described. All of the arguments presented here are aimed to rouse discussions in many associated fields to expand public understandings and uses of population projections as a scientific tool in understanding the possible shape of future society.