

Chapter 7

The Effects of Population Aging and Life Expectancy on Economic Growth: The Case of Emerging Market Economies

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ABSTRACT

This study examines the effects of gross saving rates, gross capital formation, population aging, and life expectancy on income growth between 1985 and 2018 for selected emerging market and middle-income economies. The estimates by feasible generalized least squares (FGLS), fully modified ordinary least squares (FMOLS), dynamic ordinary least squares (DOLS), canonical cointegrating regressions (CCR), and Driscoll-Kraay methods show the impact of population aging on income growth is positive. However, life expectancy gives positive results for gross domestic product per capita growth and negative results for gross domestic product growth. The results confirm that there is still an increasing population for emerging economies in general. In this respect, they also point to the neutral view approach for these countries. This situation highlights the importance of considering the effects of population aging on sustainable economic growth in emerging countries. For this reason, decision makers in these economies must monitor population structures closely and carefully.

INTRODUCTION

It is generally accepted that the underlying cause of population aging is increased life expectancy. However Caselli and Vallin (1990) stated that this premise does not fully explain the truth and that demographers explain the aging of the population in developed countries by low fertility rates. From this point of view, population aging is associated with the demographic transformation of countries. The decline in birth rates and the decline in mortality, as well as the improvements in health systems, have resulted in the aging population. It is based on the well-known theory of Becker (1960). According to this theory, in

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developed countries, the birth rate is gradually declining. Also, the improvement of health conditions in high-income countries over the same period increased life expectancy at birth, causing the population to gradually become older with low birth rates (Murphy, 2021).

Since Coale and Hoover (1958) research, studies have begun in the relevant literature showing that the aging of the population and the high old age dependence rates along with the decrease in saving rates reduce the economic growth. One of the reasons of discussing this issue in the literature is that countries' aging populations may cause social security-related problems in their fiscal systems.

As Becker (1960) reveals, there is a reverse correlation between economic development and birth rates. In countries with a rapidly aging population, substantial impacts occur in many areas such as economic growth, employment, domestic demand, urbanization, social security system, public finance, and labor-intensive sectors. In this regard, measures should be taken against the aging population (Zuo & Yang, 2009). As a result of all these counts, the population aging went beyond being a demographic problem and became the subject of macroeconomic studies. Based on the results, countries have initiated various social security reforms to decrease the burden of social expenditures that aging may pose in the future. Besides, they also implements different kinds of social policies (Orlická, 2015).

Examining Asian countries with different demographic transformations, Chomik and Piggott (2015) focused on the problems caused by this transformation in social policies. According to the authors, this century is characterized as "*Ageing Century*". Rapid population aging forces countries to take action. Countries need to take measures against the problems caused by population aging.

The population aging can also have another severe fiscal consequences, which can have intergenerational effects. Therefore, it is considered very important to examine the population aging in emerging market economies. Meeting the social security needs of the aging population can trigger fiscal crises. Furthermore, it can also trigger inflationary and deflationary effects and severe increases in national borrowing Katagiri et al. (2020). In this respect, the study puts forward a framework regarding the population aging and makes several suggestions. Already, Varol İyidoğan et al. (2017) showed that public health expenditures arising from the population aging will impact tax burdens. Kudrna et al. (2015) also showed that the aging of the population shifted the tax base from labor income to wealth income and consumption, and significantly increased public expenditure of old ages. The increasing fiscal costs will necessitate various regulations in taxes and public expenditures. Kiziltan and Golovko (2019) showed that Turkey, an emerging market economy, has economic and fiscal effects of population aging. It is reported that all demographic indicators of Turkey show that population aging in this country will be a severe problem in the future.

The population aging can also cause serious disruptive effects on the economic system. For example, Anderson et al. (2014), who studied the impacts of population aging on growth and fiscal sustainability in Japan, also demonstrated that aging causes inflationary effects. The decrease in the labor force participation rate resulting from the aging population will cause a decrease in the labor supply. It will cause employees to demand higher wages. It is a significant risk factor for labor markets. It was stated that these risks could be mitigated through fiscal structural improvements and adjustments in the financial system in line with this. The measures against the rapidly aging population should be balanced between generations. For this reason, intergenerational redistribution policies are recommended against rapid population aging. Thus, it is helpful to know the possible impacts of the aging population on the economic conditions of the countries. Besides, countries' experiences and reform steps with similar problems can be helpful in addressing the population aging issue (Hsu & Yamada, 2019).

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