

## COMPLETION REPORT

Examine Aging Population, Savings, Current and Fiscal Accounts in Selected Asia Countries

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Population aging is an important feature of Japan's economy. Since 2006, the high-income Asian economy has become a super-aged society. Changes in the age distribution of the population have important macroeconomic implications. This study tests whether population age shares have long run influences on domestic saving, domestic investment, real GDP, inflation and the fiscal account balance. Cointegration is found between each macroeconomic variable and appropriate demographic variables, which is a key finding of the analysis. The main empirical findings from the long-run cointegrating equations are that the effects of demographic change on the macroeconomic variables are statistically significant and quite strong. Alternative variants of the United Nation's population projections provide further evidence of the importance of the demographic changes for Japan's macroeconomic future. This study finds that future trends of key macroeconomic variables – saving, investment, real GDP, fiscal balance, and the current account balance - are not monotonic, but are governed by the temporal patterns of the demographic drivers. The out-of-sample forecast results suggest that the twin deficits could happen in the long run if the population growth is under the low variant assumption. The first twin (i.e. the fiscal deficit) will tend to deteriorate in the long run due to the increasing fiscal burden to support the aging population placed on the government, and the decreasing tax revenues arising from the shrinking workforce due to population aging. The second twin (i.e. the current account deficit) will tend to soar in the long run as a result of the sustained fiscal deficit as well as the falling saving arising from the shrinking workforce stemming from the aging of population. To some extent, the low fertility rate in Japan, which could pose a threat to the twin deficits in the long run via both the working population channel and saving-consumption channel if the low fertility trend still persists. Japan's low fertility rate has been highlighted by some academician that that it is likely to be stuck at the "low fertility trap", rendering the ineffectiveness of the fertility policy. In order to mitigate the twin deficits in the long run, the Japanese government should consider extending the retirement age of its aging population so that the speed of the population aging could be lowered, which is instrumental in raising both the domestic saving and tax revenue when the working life of the retired has been extended. The government should grow the workforce by attracting overseas Japanese, and top foreign students who had completed their studies in Japanese universities. From the perspective of globalisation, the government should open door to attract highly-skilled immigrants to join specific sectors that are grappling with labour shortages owing to aging, albeit immigration at large remains unpopular with the Japanese voters.

Publication of the Results of Research Project:

Verbal Presentation (Date, Venue, Name of Conference, Title of Presentation, Presenter, etc.)

“Is Population Aging Related to the Twin Deficits in the Long Run? Evidence from Japan”, International Conference on Ageing, Eastin Hotel Penang, Malaysia, 7-8<sup>th</sup> March, 2019. Present by Goh Soo Khoon

Thesis (Name of Journal and its Date, Title and Author of Thesis, etc.)

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Book (Publisher and Date of the Book, Title and Author of the Book, etc.)