A Study on the Longevity Risk of Annuity Products in Korea

The life expectancy of Korea is rapidly increasing, which is a burden on the insurance companies that sell life annuity. As the longevity risk in life insurance products has risen, the supervisory authority have added longevity risk to new required capital system (K-ICS) to be introduced in 2021.

Insurance companies did not pay much attention to longevity risk due to the high surrender rate of the annuity product and lump sum preference. However, there are many factors that can increase longevity risk such as uncertainty of mortality prediction, increase in annuity liability, aging of annuity policyholder, and annuity convertible options in whole life insurance. So there is a need to identify risks and actively manage them in Korea.

As a result of estimating the required capital of longevity risk in Korea’s life insurance industry with the mortality rate shock of 17.5%, which is the method of measuring the longevity risk of the K-ICS draft, the longevity risk was 4.6 trillion won on average, which is equivalent to 13.6% of the required capital as of the end of 2016. It could be a significant burden on insurance companies.

This report reflects these needs and measures the longevity risk of the Korea insurance industry from the viewpoint of K-ICS, discusses issues related to longevity risk capital requirement, and methods to manage longevity risk. Hopefully, this report will be used as a reference for advancing discussions in the longevity risk of Korea life insurance industry.