

## ABSTRACT

Last survivor whole life insurance provides coverage until the death of the last insured, thereby requiring an appropriate determination of premium reserves to ensure the company's solvency. This study aims to compare premium reserves using the Gross Premium Valuation (GPV) and Zillmer methods for last survivor whole life insurance products. The analysis is based on actuarial theory, including compound interest, mortality tables, survival probabilities, commutation functions, as well as the present value of annuities and insurance benefits. The data used are derived from the Indonesian Mortality Table (TMPI) 2023 with three age schemes for two insured individuals (husband and wife). The determination of premium reserves is carried out using the commutation function approach to obtain reserve values for each period. The Zillmer method produces more efficient premium reserves in the early policy years due to the adjustment for acquisition costs, but the reserves increase in subsequent periods. The GPV method tends to be more conservative in establishing premium reserves. Differences in premium reserve values are also influenced by the ages of the insured and the premium payment schemes. When the husband is younger than the wife, his probability of survival is higher, resulting in a higher required premium reserve compared to the opposite condition.

**Keywords:** Premium Reserve, Gross Premium Valuation, Zillmer, Life Insurance, Last Survivor.