

ABSTRACT

Life insurance companies face significant challenges in ensuring financial sustainability and guaranteeing claim payments to policyholders. Premium reserve calculation is a crucial aspect that must be carried out carefully. One method for calculating premium reserves is the prospective method using net premiums. However, the use of net premiums is often less optimal as it only considers the present value of net premiums and benefits without accounting for additional expenses such as commissions and administrative costs. The use of gross premiums becomes more relevant as it includes the operational costs of insurance companies. One of the methods for calculating premium reserves based on gross premiums is the Zillmer method. Premium reserve calculations require a mortality table consisting of two types: the male mortality table and the female mortality table. This study applies two calculation schemes for joint life endowment insurance, differing in the gender of the insured child: the first scheme considers a male child, while the second scheme considers a female child. The calculation results show that the gross premium for the first scheme is Rp20.798.536, while for the second scheme, it is Rp20.734.883. The premium reserve results indicate that the Zillmer method produces lower reserves at the beginning of the period than the prospective method. However, toward the end of the period, the reserve values from both methods converge to a similar amount.

Keywords: Life Insurance, Premium Reserve, Joint Life, Gross Premium, Zillmer Method, Prospective Method.