Implementasi metode double chain ladder dalam mengestimasi cadangan klaim pada asuransi kendaraan bermotor PT Asuransi ABC = Implementation the double chain ladder claims reserving method for motor insurance insurance company ABC / Eko Martin

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Abstrak

ABSTRAK
Saat ini nilai klaim IBNR (Incurred But Not Reported) dihitung berdasarkan estimasi sentral atau estimasi terbaik (best estimates) atas klaim yang sudah terjadi tetapi belum dilaporkan dengan menggunakan metode rasio klaim atau salah satu dari metode segitiga (triangle method). Metode segitiga yang digunakan dalam industri asuransi adalah metode Chain Ladder (MCL). MCL adalah metode yang umum digunakan di industri asuransi untuk memperkirakan jumlah cadangan klaim. Namun, MCL tidak didasarkan atas teori matematika maupun statistik sehingga sulit dijelaskan secara teori, selain itu jumlah cadangan klaim yang dihasilkan tidak dapat dipisahkan ke dalam RBNS (Reported but Not Settled) dan IBNR. Melalui jurnal yang ditulis oleh Miranda et al. (2012) diperkenalkan metode baru yang disebut Double Chain Ladder (DCL), dimana MCL diaplikasikan dua kali terhadap incurred count dan paid claims data. DCL memberikan teori statistika terhadap MCL, dengan menggunakan parameter-paremeter tertentu untuk mengestimasi RBNS dan IBNR dengan menambahkan parameter delay time dari klaim dilaporkan sampai dengan klaim dibayarkan. Hasil perhitungan cadangan berdasarkan DCL untuk RBNS adalah sebesar Rp. 37.169.681.816,00 dan IBNR sebesar Rp. 58.280.429.263,60, sehingga total cadangan klaim sebesar Rp. 95.450.110.000,00. Sedangkan cadangan klaim dengan MCL adalah sebesar Rp. 85.750.734.043,00.
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ABSTRACT

Currently the calculation of the amount of IBNR value in accordance with the technical provisions can be calculated based on central estimates or best estimates on claim incurred but not reported using the expected loss ratio method or one of the methods of the triangle (triangle method). The One triangle method used in the insurance industry is the Chain Ladder Method (CLM). CLM is an actuarial method which is quite well known in the insurance industry and applied to estimate the amount of loss reserves. CLM was not based on mathematical statistics so it is difficult to justify theoretically, and CLM is incapable of dividing predicted outstanding liabilities into RBNS and IBNR claims.. However, according to Maria Dolores Martinez Miranda, Jens Perch Nielsen and Richard Verrall through journals published in Astin Bulletin, the CLM unable to separate claim estimates into into RBNS part and IBNR part as a component in the claim reserve. Through the journal introduced a new method called the Double Chain Ladder (DCL). DCL replicated CLM and applied twice, one on the incurred count data and then on the paid claims to perform the calculation of estimated outstanding claims can separate RBNS and IBNR as component of claim reserves as and thus to the total combined future payment estimate. The DCL model give statistic theory to CLM by using a particular estimation parameter method and adding delay time parameter from claim is reported until it is paid. DCL provide further result that CLM is unable to provide, such as the prediction of outstanding

liabilities separately for RBNS and IBNR Claims. Calculation result for RBNS is Rp. 37.169.681.816,00 and IBNR is Rp. 58.280.429.263,60, so total claim reserve is Rp. 95.450.110.000,00. Claim reserve using MCL is Rp. 85.750.734.043,00.