



# Using separate exposure for IBNYR and IBNER in the Chain Ladder method

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## Abstract

Consider claims reserving based on incurred claim costs. For this case, Schnieper (1991) suggested a reserving method for separating the “true” unknown claims reserve (IBNYR) from the development of incurred claims (IBNER). While this is interesting in its own right, we suggest that the most important feature of the method is that it allows us to use a prior volume measure, such as premiums, as exposure for unknown claims, in contrast to the Chain ladder method that takes incurred claims as exposure for the combined IBNYR and IBNER reserve.

We present a new method using the same two data triangles as Schnieper’s method, but with incurred claims as exposure for both unknown and known claims, separately. The resulting ultimate claim cost is identical to the one from the Chain ladder. Hence, the method provides a way to split the Chain ladder reserve into known and unknown claims. Together with Schnieper’s method, we also get a framework for choosing the proper exposure measure for IBNYR, while always keeping incurred claims as exposure for IBNER.

**KEY WORDS:** Claims reserving, Case reserves, True IBNR, RBNS, Schnieper’s method, Unknown claims.

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