Provision For Bad Debt in Credit Risk

1. This method is being used to assess the bad debt provision for companies in their Companies Act Accounts. It has implications in respect of insurance business

    (i)   Which Insures bad debt; and

    (ii) In respect of its own bad debts

2. The conditions when the method has been used is where there is a large volume of data, and the analysis of claims is relatively stable. Repayment of part of the debt is made monthly.

3. Basic initial analysis is undertaken on various average debt amounts. These are subdivided into arrears categories. It must be remembered that unlike a delay pattern a person can go from arrears 3 to arrears 1 by partial payment of debt.

4. A model is then developed using transition probabilities, which represents the probability of going from arrears case X to arrears Case Y.

5. This model is then used to simulate the provision requirements. The model has certain features; in particular

    (i)   It has inbuilt stability.

    (ii) The results are very consistent with actual experience taking due account of the fact that the actual write off is in the hands of the company .

    (iii) The transition probabilities has the features of negative binomical or Generalised Waring Distributions, which indicate "accident proneness" ie people with a bad debt record tend to keep this record.

6. The model also incorporates features which the accounting provision did not appreciate. In particular

    (i)   The question of provision was dependant on how fast the current debt was being written off.

    (ii) The ability to finance bad debt out of new cases written; thus an absolute initial provision could be determined and then incorporated in the pricing of the product.

7. The model used is similar to the models for outstanding claims, but have many additional features. An understanding of the model may assist many companies in setting up provisions for other classes of less exotic risks.

8. Illustrations of the formula used will be given in the talk, and detailed reasons of why various models were rejected to come to the final one used in calculating the provision.

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