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Modeling Fractional Outcomes with GLSTM

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Abstract

The generalized GLS (GLS) theory about fractional regression with Gaussian distributional assumption has been the first choice to model fractional outcomes in many business problems. However, it is controversially found as having Gaussian distribution for a response variable in the [0, 1] range. In this paper, several existing techniques for fractional outcomes with their implementations in R/RN proved to be flawed through a later analysis according to modeling fractional outcome data of businesses. The purpose of this paper is to provide a relatively comprehensive survey of how to model fractional outcomes in the RAN and comparing and contrasting the model assumptions.

Keywords:

Fractional outcomes, Total model, GLS (Gaussian total Squared) regression, Fractional logit model, Beta regression, Dirichlet regression, Poisson models.

1. Introduction

In the financial services industry, we often observed business outcomes in model fractional outcomes in the range of [0, 1]. For instance, at the end of an credit line, LCR (Loan Loss Ratio Default) measures the proportion of losses not recovered from a default borrower during the collection process, which is observed in the closed interval [0, 1]. Another example is the corporate financial leverage ratio represented by the long term debt as a proportion of the combined fixed and long term debt and the equity.

Although several research in statistical models for fractional outcomes have been published during the past years, there is still no general agreement on either the distributional assumption or the modeling process. (a) Considering the statistical model using a Gaussian sample GLS regression with Gaussian distributional assumption has remained the most popular method to model fractional outcomes due to the simplicity. However, the agreement with GLS regression suffers from a couple of important flaws. First and the most important of all, fractional outcomes in the [0, 1] interval are not defined on the whole real line and therefore shouldn't be considered normally distributed. Moreover, a statistical contradiction of fractional outcomes is that the observed is not independent of the mean. For instance, the leverage ratios on the same geographical territory points of [0, 1], which is implying that a form of heteroscedasticity.

Modeling Fractional Outcomes With Sas

Jianjun Gao



Modeling Fractional Outcomes With Sas:

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Dissertation Abstracts International, 2008

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Journal of the American Medical Association, 2002

The American Naturalist, 2006

The Relationship of Socioeconomic Status to the Prevalence of Dental Caries and Fluorosis in the Elementary Schoolchildren of Genesee County, Michigan Mark D. Macek, 1998

Journal of the American Statistical Association, 2005 A scientific and educational journal not only for professional statisticians but also for economists business executives research directors government officials university professors and others who are seriously interested in the application of statistical methods to practical problems in the development of more useful methods and in the improvement of basic statistical data

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