



**Effect of acarbose intake on postprandial glycemia in a single rat
- a nonlinear mixed effects model**

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Abstract

Nowadays, large financial institutes have been worried in investing more and more in default rate modeling. Predicting precisely the default rate can result in huge benefits for an institute. The comprehension of how and where explanatory time series influence the default rate, allow a more profitable and better control and management of the client base. In this research, the default rate (90-plus days) that represents the seriously delinquent category was investigated in the period from 2003 to 2014, two terms of the Lula government and the first term of Dilma Rousseff. SARIMA and SARIMAX methodologies were taken into account to built forecasting models, evaluating the improvement of including explanatory variables. The benefit and concerns about the model building in the presence of explanatory variables are discussed. From the analysis, SARIMAX model showed better forecasting results regarding to SARIMA model.

Keywords: SARIMAX; SARIMA; Default rate.