

Robust Standard Industry Norm and Supervision of Solvency

Georgios Pitselis
Department of Statistics & Insurance Science
University of Piraeus
pitselis@unipi.gr

In the present paper we focus on the estimation of the capital and other financial components an insurance company should hold in order to manage losses and avoid insolvencies. A brief description of the main risk based capital (RBC) characteristics is also presented. In addition to the effort of the European Union (EU) to reform its current regulatory system (Solvency I) and create a new prudential supervisory system, the Solvency II, reforms that were realized by some western countries are also presented. Cross section regression model for the supervision of solvency and prediction of insurer insolvency is applied. This cross section regression model can be considered as the industry norm (line) for healthy companies and may be used to identify insurance companies that deviate substantially from this estimated relationship norm. Robust regression techniques also applied to remedy the effect of outliers and produce more reliable parameter estimation. The techniques are implemented with data provided by private insurance companies.