

## **Book Review: *Modelling the Riskiness in Country Risk Ratings***

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(Emerald Group Publishing Limited, 2005), 516 pages

Review by Tahir Suleman

This book presents an econometric analysis of riskiness in country risk ratings. Country risk and its associated risk ratings for 120 countries covering eight geographic regions is analysed by using the univariate and multivariate volatility models. The book consists of seven chapters. Chapter one introduces the topic and the key elements of country risk which are economic, financial and political risk. Country risk literature is presented in chapter two, as is the detailed analysis of the empirical foundations of the published contributions to the literature on country risk. Further, 50 empirical studies with reference to depiction of models, source of information and data, dependent and explanatory variables, model selection and method estimation, diagnostic test and the empirical finding from these studies are described in this chapter. All the studies in their literature based on pooled or cross-section type of data and two most commonly used dependent variables were the probability of debt rescheduling and country risk ratings. Economic, financial and political variables used as explanatory variables. For the country risk model the most popular model used in these papers were logit followed by probit and discriminant, whereas logit, probit and tobit model was used 40 times in total and ML estimation for 35 times. Similarly linear and log-linear models were used only seven times and OLS used for 16 times. However these studies ignore the diagnostic testing. A detail about the papers which consist of journal, data, variables and methodology also presented in Appendix of chapter two.

A qualitative comparison of risk rating system of ten leading agencies of country risk, Business Environment Risk Intelligence S.A., Economic

Intelligence Unit, Euromoney, Fitch IBCA, Institutional Investor, International Country Risk Guide, Moody's, Political Risk Services, S.J. Rundt and Associates, and Standard and Poor's is presented in chapter three. A detail about these country risks rating which consist of definition of country risk by each rating agency, number of countries provided by each rating agency, frequency of the data, number and type of ratings compiled, number and type of risk components used, weight assigned to each risk components. Furthermore a thorough exploration of the ratings of International Country Risk Guide (ICRG) as it provides consistent monthly risk ratings.

Chapter 4 evaluated monthly ICRG country risk ratings and risk returns for 120 countries by geographical region. Risk returns defined as the monthly percentage change in the respective risk rating and the volatility as the squared deviation of each observation from the respective sample mean risk rating or risk returns. Further it covers investigation of the associated risk return and volatility of the four country risk rating and risk returns analysed with respect to economic, financial and political risk for each country. There were considerable variations in the risk ratings as well as in their associated volatilities across the eight regions. This chapter also provide first time a relative assessment of the trends and volatility of country risk ratings for all countries for economic, financial, political and the composite risk ratings. Further graphical analysis of the risk return and related volatilities for each country is also reported in this section.

Up-to-date theoretical results on univariate Generalized Autoregressive Conditional Heteroscedasticity (GARCH) models of conditional volatility presented in the chapter five. They also discussed constant correlation asymmetric VARMA-GARCH model of Hoti, Chan and McAleer (2002). The underlying structure of the VARMA-AGARCH was examined including convenient sufficient conditions for the existence of moments for the empirical analysis. These conditions permit an empirical assessment of the models for investigating country risk ratings and risk returns and associated volatilities. Risk ratings can be treated as index in the same manners as the financial market returns and analysed in chapter six.

The empirical results provided a relative valuation of the conditional mean and volatilities of the country risk variables across the countries over time, emphasizing the significance of economic, financial and political risk rating as components of composite risk ratings. The univariate GARCH (1, 1) and GJR (1, 1) models were found statistically passable for risk returns of all the countries. In general, the rankings by range of variation of GARCH (1, 1) static conditional correlations through the eight regions are constantly greatest for financial, economic or composite risk returns. However it's lowermost for political, economic or composite risk returns. The deviation of the conditional correlations for financial risk returns were never low and for political risk returns were never the highest. Finally chapter seven concludes with a summary of all the six chapters and discussion for further research in the area of country risk rating analysis.

Overall, the book is carefully written is an important impact on country risk rating models. In particular, the thorough demonstration of the all four components of country risk ratings and the description of the risk rating by converting them in risk returns and corresponding volatilities provide a significant improvement of previous country risk rating models. Taken it as whole, the book makes a valuable contribution to the literature on country risk analysis.