摘要

本文擴展 Meneguzzo & Vecchiato (2002) 模型，應用縮減式信用風險模型，首次提出與物價指數連動的擔保債權憑證(Collateralized Debt Obligations, CDO)模型。該模型，除了具備傳統 CDO 的特色之外，在物價不斷攀升之際，亦能保障分券投資人的實質收益。此外，當模型分券之通膨效果爲零時，則本模型隨即變成傳統的 CDO 模型，所以本模型可視爲傳統 CDO 的一般化(general form)模型。在蒙地卡羅法和機率水桶法之應用下，實證發現，與物價指數連動的 CDO 模型，其分券的信用價差皆高於無通膨效果之傳統 CDO 評價模型；物價指數波動度與各分券之信用價差呈同向變動。

關鍵詞：物價指數連動的 CDO、縮減式模型、一般化 CDO 模型、機率水桶法、蒙地卡羅法

Abstract

This article extends the work by Meneguzzo & Vecchiato (2002) under a reduced form to first present an inflation-indexed CDO model. Besides the properties of traditional CDOs, the model can preserve investors' real profits in an inflation period. Also, the model can reduce to a traditional CDO model when the proportion of the inflation effects of the tranches in the model equals to zero. Thus our model can be regarded as a general one of the traditional CDO models. In empirical studies, using Monte Carlo simulation and Probability Bucketing method, it is found that the fair spread of the inflation-indexed model is higher than that of the traditional CDO model with no inflation effect. Also, the relationship between the fair spread and inflation volatility is positive.

Keywords: Inflation-indexed CDO, Reduced form model, General CDO model, Probability Bucketing method, Monte Carlo simulation