Análisis de los precios y rendimientos de Deuda del Estado, a medio y largo plazo, en la Unión Europea

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Abstract

This research is located in the area of Fixed Income, concretly there analyze the returns Government Bond, medium and long term, of ten European Union (EU) countries, seven of them members of the European Monetary Union (EMU), years 1998 even 2004, both included.
To conduct this research a set of outstanding issues was selected of wide spectrum, both in extending maturity term as the number of them for each country, which they have been removed in four groups, according to the issuing country and depending on the role they play in the market.
The Aims are: 1) To determine the characteristics of the prices time series; 2) To study the returns time series; 3) To analyze the existence of a structural change in the returns series as a result of the introduction of the single currency; 4) Modeling the volatility of returns; 5) To evaluate the similarities / differences between the return issues of the four groups.
Contributions
- Concerning the proposed methodology:
· Multivariate statistical method to reduce variables, PCA.
· Nonlinear model of volatility, GARCH (1,1).
· New multivariate model of volatility GARCH-PC.

- Regarding the results:
· Detailed analysis, descriptive and temporary, of prices and returns series.
· Proof of a structural change in markets that involves a modification in the behavior of the return series.
· Nonlinear modeling of the returns volatility.
· Multivariate modeling to determine the volatility of relations in the movement of different issues.
· Comparison of the conduct between the returns of the four groups of issues of Government Bond.
The findings can be summarized as follows:
- The residual term plays an important role in the Euro issues because it determines the evolution of their returns. You can not say the same of non-Euro issues
- The return series, both Euro and non-Euro issues, present the typical characteristics of the financial series: Leptocurtosis, variance of the residues not constant, clustering of observations, autocorrelation in his values.
- The behavior of the returns Euro issues and benchmarks suffer a change from the implantation of the single currency being determined by the remaining years until their amortization. Nevertheless, the conduct of the not Euro issues and benchmarks does not change in the years posterior to the EMU creation.

- The volatility of the returns Euro and not Euro issues is practically void when the maturity is minor that three years.
- The GARCH (1,1) model is not always adequate to explain the volatility of returns on the issues of the four groups.
- The behavior of the Euro and non-Euro benchmarks reflect the issues Euro and not Euro, respectively.