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A selection of papers presented at the second International Workshop on Financial Markets and Nonlinear Dynamics (FMND) which was organized in Paris on June 4–5, 2015 is published in this special issue of *Studies in Nonlinear Dynamics and Econometrics*. This international workshop organized every 2 years in Paris is designed to enable academics and professional economists and econometricians to discuss their latest research findings and the recent developments in financial econometrics, with a focus on nonlinear econometrics and high frequency data modeling. Accordingly, the selected papers of this issue discuss some challenging new topics of research using nonlinear and switching models.

The first paper, entitled, "*On the Estimation of Regime-Switching Lévy Models*," by Julien Chevallier and Stéphane Goutte (University of Paris 8, France), proposes a new two-step procedure to model the regime-switching levy model. Using different simulations, the authors show the superiority of their model with regard to non-regime switching models and a class of continuous regime switching processes. Ming Meng, Junsoo Lee (University of Alabama, USA) and James Payne (Georgia and State University, USA) coauthor a paper entitled "*RALS-LM Unito Root Test with Trend Breaks and Non-Normal Errors: Application to the Prebish-Singer Hypothesis*." In this paper, the authors propose a new unit root test that allows for structural breaks in both the intercept and the slope, while adopting the Residual Augmented Least Squares (RALS) procedure to improve the power of their test for a non-normal distribution. Interestingly, they show that their test supplant the usual LM test through an application to large sample of commodities.

The third paper, entitled "Modeling Threshold Effects in Stock Price Comovements: A Vector Nonlinear Cointegration Approach" by Souhir Chlibi, Fredj Jawadi (University of Evry, France) and Mohamed Sellami (EDC Paris Business School, France) propose a new investigation of stock market comovement using a recent class of vector threshold cointegration models. The author develop an empirical nonlinear multivariate specification based on Hansen and Seo (2002) to model further heterogeneity in stock price comovements across a large sample of stock markets (G7, BRICS and the Middle East North Africa). Their results point to the presence of a significant threshold cointegration relationships that are activated per regime, which might be helpful for investors to help them to better rebalance their portfolios.

"*Specification Analysis in Regime-Switching Continuous-Time Diffusion for Market Volatility*" is the title of the fourth paper by Ruijun Bu (University of Liverpool, UK), Jie Cheng (Xi'an Jiaotong-Liverpool University, China & UK) and Kaddour hadri (Queen's University Belfast, UK). On the basis of a model specification in regime-switching continuous time diffusions using different specifications, the authors show further evidence of regime-switching effects in the S&P500 volatility index (VIX) dynamics. Further, they point to the presence of nonlinear endogeneity in regime changes and a significant nonlinearity in the regime-dependent diffusion specification confirming the usefulness of their model.

Krenar Advulaj (Charles University, Czech Republic) and Jozef Barunik (The Czech Academy of Sciences, Czech Republic) coauthor the fifth paper, entitled "*Semiparametric Nonlinear Quantile Regression Model for Financial Returns*." Their study investigate the nonlinearity in financial data and propose to use realized measures in the nonlinear quantile regression to explain and forecast conditional quantiles of financial returns. Accordingly, the application of this nonlinear specification implied by copula to a large sample of US assets across different industries enables them to capture nonlinearity and asymmetry in the data.

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Finally, Jean-Paul Renne (Bank of France, France) proposes a paper entitled "*A Model of the Euro-Area Yield Curve with Discrete Policy Rates*," in which he presents a no-arbitrage yield-curve model that incorporates the central bank policy rates and is also suitable with the current context of lower bond interest rate. The author points to significant changes in the policy rates and monetary policy-phase. In particular, using daily euro-area yield data, his model enables to identify different monetary-policy regimes, and to compute different term preimums.

Reference

Hansen, B. and B. Seo. 2002. "Testing for Two-Regime Threshold Cointegration in Vector Error-Correction Models." *Journal of Econometrics* 110: 293–318.