Editorial

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Biographical notes: Costas Siriopoulos received a BSc in Econ., an MSc in Econometrics and a PhD in Econometrics and is a Professor of Financial Econometrics at the University of Patras, Greece. His research interests include financial markets, time-series analysis and econometrics. He has published several papers in such journals as *International Journal of Finance and Economics*, *Multinational Finance Journal*, *Applied Financial Economics*, *Managerial and Decision Economics*, and *Economic Notes*, and his research has been presented in many international conferences.

Increased capital flows, rapid dissemination of information and faster transfer of funds have all served to increase market risks. Recent failures in financial and non-financial firms, as well as in governmental agencies, point to the need for various forms of risk management. Financial misadventures are hardly a new phenomenon, but the rapidity with which economic entities can get into trouble is really one. Not surprisingly, current trends in financial markets move our research interests, beyond market and credit risk, to other types of risk, such as operational, business and systemic risks.

Managers need reliable risk measures to direct capital to activities with the best risk-reward ratios. They need estimates of the size of potential losses to stay within limits imposed by readily available liquidity, by creditors, customers and regulators. They need mechanisms to monitor positions and create incentives for prudent-risk taking by divisions and individuals.

Risk management is the process by which managers satisfy these needs by identifying key risks, obtaining consistent, understandable risk measures, selecting which risks to reduce or increase and by what means, and establishing procedures to monitor the resulting risk position. According to the Basel Committee, financial risk management could be viewed as a four-process sequence: *identification* of risk categories, *assessment* of risk using data, *monitoring and reporting*, periodically, of the risk assessments and *control* of risk by senior management.

Modern risk management practices and the development of state-of-the-art technologies have important implications for the supervision and operations of the financial sector. The recently (June 2004) approved International Convergence of Capital Management and Capital Standards, more commonly known as Basel II, adopted by all G10 – and many other – countries in 2007, encourages regulators to shift their attention from compliance-oriented supervisory methodology to risk-based supervision and for commercial banks to adopt more vigorous and robust risk management practices. In that sense, when a bank assesses the risk of its investment portfolio, it should not only look at

the risk of individual exposures but also account for correlations of the exposures. Banks are also forced to be adequately capitalised to survive a major economic shock, but it is a serious error to think that meeting regulatory requirements is the sole or even the most important reason for establishing a sound, scientific risk management system. Accurate risk assessment and the corresponding linkage to capital is a very important tool for increasing shareholder value. Given its importance, a strand of studies has been devoted to developing powerful models for addressing the different kinds of risk, such as Value-at-Risk (VaR) models for market risk assessment, the structural firm value, rating-based models for credit risk assessment and the actuarial loss model approach for operational risk assessment, just to mention a few. However, extended evidence reveals certain deficiencies of these models, such as subjectivity or incompleteness of data, and therefore indicates the need for further research into reduced-form VaR models. These models are set within a common framework, admit the proper aggregation of risk, are capable of incorporating prior beliefs about the future and provide an explicit link from risk control to risk capital assessment and to the optimal allocation of resources. Besides, financial econometric research could also broaden its scope to encompass some of the wider issues facing smaller entities where the strong 'enterprise culture' militates against managing risks in a professional structured way.

In an attempt to address some of these issues, the present Special Edition on *Financial Risk Management* of *IJRAM* publishes 10 papers covering a wide range of risk aspects.

Corporate failure risk assessment of Greek companies

This paper deals with the application of the Panel Data Logit Model (PDLM) and the Cross-Sectional Logit Model (CSLM) in the bankruptcy prediction framework. In contrast to related prior empirical evidence (Shumway, 2001), the results show an outperformance of CSLM over PDLM.

Demonstration of data mining approaches in credit risk evaluation

This paper deals with the development of two neural networks (BPNN and PNN) in order to predict bankrupted and non-bankrupted firms from manufacturing sector. The findings show that neural networks must be used as a supplementary method of DEA.

Predicting US commercial bank failures via a multicriteria approach

This paper develops a set of competitive bank failure prediction models. Interestingly, it is suggested that the UTADIS method outperforms discriminant analysis.

VaR: is lacking in subadditivity just an annoying technicality?

The purpose of this study is to identify potential properties of the VaR method as a proper measure for risk diversification. Overall, the findings advocate that VaR outperforms the standard deviation method but is outperformed by the expected shortfall method owing to lack of subadditivity. All results are supported from concrete examples, therefore, constituting an interesting setting.

Study of banking sector design from risk perspective to minimise
social costs

This paper proposes a new design for the banking sector according to which each bank self-monitors its own risk level, and controlled by the market forces. Inferences drawn from the analysis indicate that the application of this design will enhance the solvency of banks in US, the confidence of investors and the safety of depositors.

The impact of risk factors on stock returns: the case of the
National Bank of Greece

This paper examines the potential association between the realised rates of return and both the beta coefficients and the anticipated dividend yields. By reproducing some monthly output data and running a few extensions of factor models focusing on a single company (NBG), the authors document that rates of return on NBG's stockholders are influenced by the anticipated earnings and security of the dividend as well as by the capital gains rather than the dividend income.

A practical approach to market risk analysis and control: empirical test of
the Mexican foreign exchange and stock markets

In this research paper, the parameters of a practical framework for managing portfolios' market risks are considered by means of a case study approach. The author successfully performs simulations to several cases of different asset allocations in attempting to set an optimum limit's structure for an equity/foreign exchange market risk management unit.

Loose risk management mechanisms of corporate governance of
Greek firms; rewards to board from earnings that are not based
on performance incentive plans

This paper is a purely empirical approach to the analysis of remuneration from distributed earnings schemes as a motivation mechanism to the board of directors of Greek quoted firms. The academic merit of this paper is inherent in the interpretation of the results, and the conclusions reveal new insights on the interrelationship of shareholders with the board of directors in the context of compensation plans.

Hedge ratio estimation and hedging effectiveness: the case of the
S&P 500 stock index futures contract

This paper investigates the hedging effectiveness of the S&P 500 stock index futures contract using a variety of competitive models for computing hedging ratios. The results show that the error correction model is more appropriate, both in terms of estimation of optimal hedge ratios and of forecasting, even when compared with the new application of EGARCH model.

An integrated taxonomy of consumers of financial services: the role
of perceived risk, effort and involvement

The main part of this paper combines classification of financial products with a taxonomy of consumers of financial services. It emphasises the need for a more complete understanding of the ever-changing (real as well as symbolic) environment of financial services.