DIMITRA KYRIAKOPOULOU, PH.D.

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EDUCATION

2007-2011 **Ph.D. in Econometrics (First-class Honours)**, University of Piraeus, Greece
Thesis title: "Asymptotic expansions of econometric estimators in time series models"

2002-2003 **M.Sc. in Econometrics and Economics (Merit)**, University of Essex, United Kingdom

1998-2002 **B.Sc. in Economics (Upper Second-class Honours)**, University of Patras, Greece

RESEARCH INTERESTS

Time Series Econometrics, Financial Econometrics, Risk Management, Asymptotic Theory in Time Series, Econometric Theory, Econometrics of Competition

PROFESSIONAL EXPERIENCE

2011- **Econometrician**, Hellenic Competition Commission, Greece
Prime analyst of economic sectors with Time Series Econometric techniques for the analysis and investigation of the competitive conditions prevailing in key sectors of the national economy

2004-2013 **Researcher & Teacher**, Athens University of Economics and Business (AUEB), Greece
Courses taught:
Quantitative Methods in Finance (BSc, 2004-2011): Teaching Assistant
Econometric Applications in Finance (MSc, 2004-2013): Module leader, teaching evaluations **9.11/10**

PUBLICATIONS

1. "Edgeworth and Moment Approximations: The Case of MM and QML Estimators for the MA(1) Models" (with A. Demos), ***Communications in Statistics: Theory and Methods***, 2013, 42 (10), 1713-1747.

WORKING PAPERS AND WORK IN PROGRESS

1. "Asymptotic Normality of the QML Estimator in the EGARCH(1,1) Model", ***submitted***. http://ssrn.com/abstract=2236055. ***Job-market paper***

2. "Bias Correction of ML and QML Estimators in the EGARCH(1,1) Model" (with A. Demos), ***to be submitted***. http://wpa.deos.aueb.gr/wpa_show_paper.php?handle=1108.

3. "Sector Inquiry into fresh fruits and vegetables: An econometric analysis of the price transmission mechanism", Working Paper, Hellenic Competition Commission.

4. "Edgeworth Expansion in Nonparametric Models", Work in progress.

5. "Robust Estimation of systemic risk in financial markets", Work in progress.

RESEARCH SUMMARY

1. ***Asymptotic Normality of the QMLEs in the EGARCH(1,1) Model, submitted.***
   Abstract: This paper investigates the asymptotic properties of the quasi-maximum likelihood estimator (QMLE) for the EGARCH model. Sufficient conditions under which the EGARCH(1,1) processes have stationary first and second order variance derivatives, and the expectation of the supremum norm of the second order log-likelihood derivative is finite are established. The existence of such moment bounds permits the establishment of the CLT of the score and the uniform SLLN of the hessian, so that the asymptotic normality of the QML estimators is proved.

2. ***Edgeworth and Moment Approximations: The Case of MM and QML Estimators for the MA(1) Models (with A. Demos), Communications in Statistics: Theory and Methods,* 2013, 42 (10), 1713-1747.**
   Abstract: Extending the results in Sargan (1976) and Tanaka (1984), we derive the asymptotic expansions of the distribution, the bias and the mean squared error of the MM and QML estimators of the first order autocorrelation and the MA parameter for the MA(1) model. It turns out that the asymptotic properties of the estimators depend on whether the mean of the process is known or estimated. A comparison of the moment expansions, either in terms of bias or MSE, reveals that there is not uniform superiority of neither of the estimators, when the mean of the process is estimated. This is also confirmed by simulations. In the zero-mean case, and on theoretical grounds, the QMLEs are superior to the MM ones in both bias and MSE terms. The results presented here are important for bias correction and increasing the efficiency of the estimators.

3. ***Bias Correction of ML and QML Estimators in the EGARCH(1,1) Model (with A. Demos), to be submitted.***
   Abstract: In this paper we derive the bias approximations of the Maximum Likelihood (ML) and Quasi-Maximum Likelihood (QML) Estimators of the EGARCH(1,1) parameters and we check our theoretical results through simulations. With the approximate bias expressions up to O((1/T)), we are then able to correct the bias of all estimators. To this end, a Monte Carlo exercise is conducted and the results are presented and discussed. We conclude that, for given sets of parameters values, the bias correction works satisfactory for all parameters. The results for the bias expressions can be used in order to formulate the approximate Edgeworth distribution of the estimators.

FUNDED RESEARCH PROJECTS

"Theory and Applications of Indirect Estimators Asymptotic Expansions", with A. Demos,
Sponsor: AUEB Basic Research Funding Program, PEVE II, 2009-2010.

INVITED SEMINAR PRESENTATIONS

2010	PhD Seminar Series, University of Piraeus, Department of Financial Management and Banking
2010	PhD Seminar Series, Athens University of Economics and Business
2009	Bank of Greece Workshop, Department of Economic Research, "Asymptotic Expansions of Econometric Estimators in Time Series Models: PhD Thesis Overview"
2009	PhD Seminar Series, University of Piraeus, Department of Financial Management and Banking
2007	PhD Seminar Series, University of Piraeus, Department of Financial Management and Banking

PRESENTATIONS IN CONFERENCES

2014	European Commission Meeting, DG Competition, Brussels
2013	3rd Humboldt-Copenhagen Conference on Financial Econometrics, Berlin
2012	11th Conference on Research on Economic Theory & Econometrics (CRETE), Milos, Greece
2010	4th International Conference on Computational and Financial Econometrics (CFE'10), London
2010	European Meeting of Statisticians (EMS), Piraeus, Greece
2010	Conference in Honour of Sir David F. Hendry, St. Andrews, Scotland
2010	9th Conference on Research on Economic Theory & Econometrics (CRETE), Tinos, Greece
2010	10th International Vilnius Conference on Probability Theory and Mathematical Statistics, Vilnius
2010	The Rimini Conference in Economics and Finance (RCEF), Rimini
2009	3rd International Conference on Computational and Financial Econometrics (CFE 09), Limassol
2009	8th Conference on Research on Economic Theory & Econometrics (CRETE), Tinos, Greece
2009	Spring Meeting of Young Economists (SMYE), Istanbul
2008	7th Conference on Research on Economic Theory & Econometrics (CRETE), Naxos, Greece
2008	1st PhD Conference in Economics 2008, in Memory of Vassilis Patsatzis, University of Athens
2007	EC^2 Conference, Advances in Time Series Analysis, Faro, Portugal

PROFESSIONAL ACTIVITIES

Journal Referee

Computational Statistics and Data Analysis, Communications in Statistics: Simulation and Computation

Discussant

2009 XIV Spring Meeting of Young Economists (SMYE), Istanbul

PROFESSIONAL SOCIETIES

Member: Econometric Society, Royal Economic Society

COMPUTER SKILLS

E-Views, Stata, SPSS, LaTeX, Fortran, Mathematica

LANGUAGES

English (fluent), Greek (native)