BOOK OF ABSTRACTS

HELSINKI | 2017

ICNTEF CONFERENCE

3rd INTERNATIONAL CONFERENCE ON NEW TRENDS IN ECONOMETRICS & FINANCE

3rd International Conference on New Trends in Econometrics & Finance

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ICNTEF CONFERENCE

3rd INTERNATIONAL CONFERENCE ON NEW TRENDS IN ECONOMETRICS & FINANCE

28-29.04.2017
Original Sokos Hotel Presidentti, Helsinki/Finland
http://www.icntefconference.com/

ICNTEF'2017

3rd International Conference on New Trends in Econometrics &Finance
Helsinki/Finland

Published by the ICNTEF Secretariat

Editors:
Prof. Dr. Sevin Ugural

ICNTEF Secretariat
Büyükdere Cad. Ecza sok. Pol Center 4/1 Levent-İstanbul
E-mail: aioc.econometrics@gmail.com
http://www.icntefconference.com

Conference organised in collaboration with Monre Tourism and Organization

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Dear Colleagues,
Eastern Mediterranean University Economic Research Center announces the 3rd International Conference on New Trends in Econometrics and Finance (ICNTEF'17) which will be held at Helsinki between April 28-29, 2017.

Like the previous two conferences, this conference serves as a forum for academics, practitioners, and central bank and government officials in Europe and all over the world to present and discuss research results about the evolution of the international economics and of the global financial system.

In the conference emphasis will be placed on the developments in emerging market economies, on the fate of the recent trends and of the impact of these developments on international trade, finance and regulation as well as on national economies and financial systems. Theoretical, empirical and policy-oriented papers are all welcome.

The organizers encourage submissions of papers and posters on any topic within the overall theme of the conference and in the following areas in particular:

Econometrics
Economics
Economic Policies
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Macroeconomics
Microeconomics
Industrial economics and regional economic issues

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Risk Management
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Quantitative Finance

All papers will be published in Conference Proceedings Book

We kindly wait for your participation in our conference in Helsinki, to be held in April 28-29, 2017, with the expectations to realize a fruitful discussion ground together with enjoying its social activities and hoping to leaving a trace on your memories.

Hoping to seeing you all in Helsinki.

With my kindest regards

Prof. Dr. Sevin Ugural
Eastern Mediterranean University, North Cyprus
Conference Chair

SCIENTIFIC PROGRAM

27 APRIL 2017

15:00 – 18:00 : REGISTRATION

28 APRIL 2017

08:30-17:00 : REGISTRATION

MAIN HALL : GRAND OPENING CEREMONY

09:30 – 10:00 : CONCERT / Live Performance by Young Musicians

10:00 –10:20	**B R E A K**

HALL 1

10:20 – 11:20
Welcome Speech : Prof. Dr. Sevin UĞURAL / Eastern Mediterranean University
ICNTEF Conference Chair

KEYNOTE SPEAKER :Prof.Dr. NARAYANASWAMY BALAKRISHNAN
Title: Cure rate models and applications

11:20 –11:40	**B R E A K**

HALL 1 / SESSION A

SESSION CHAIR	Fernando LÓPEZ-BLÁZQUEZ	
TIME	**TITLE**	**PRESENTER**
11:40 – 12:00	ERGODIC THEOREM FOR CENTRAL AND INTERMEDIATE ORDER STATISTICS	**Anna DEMBINSKA**
12:00 – 12:20	MODEL-ASSISTED ESTIMATION OF SMALL AREA ADDITIVE PARAMETERS	**Domingo MORALES** María Dolores ESTEBAN María del Mar RUEDA
12:20 – 12:40	NON-HOMOGENEOUS POLYA-AEPPLI PROCESS	**Leda MINKOVA**
12:40 – 13:00	SOME MODELS IN RELIABILITY OF COMPLEX SYSTEMS	**Ismihan BAYRAMOGLU**

13:00 –14:00	**LUNCH**

HALL 1 / SESSION B

SESSION CHAIR	MAN HO LING	
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14:20 – 14:40	ANALYSIS OF SEMIPARAMETRIC MIXED HIDDEN MARKOV MODEL WITH LONGITUDINAL DATA	**Kai KANG** Jingheng CAI Xinyuan SONG
14:40 – 15:00	BAYESIAN REGULARIZED MULTIVARIATE GENERALIZED LATENT VARIABLE MODEL	Xiangnan FENG Haotian WU **Xinyuan SONG**
15:00 – 15:20	SAMPLE SIZE REQUIREMENTS UNDER DIFFERENT LEVELS OF RELIABILITY FOR LATENT VARIABLE STRUCTURAL EQUATION MODELING	**Gülhayat GÖLBAŞI ŞİMŞEK** Elif ÖCÜT

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HALL 1 / SESSION C

SESSION CHAIR	SEVİN UĞURAL	
TIME	**TITLE**	**PRESENTER**
16:00 – 16:20	TWIN DEFICIT PROBLEM AND FELDSTEIN HORIOKA HYPOTHESIS: THE ANALYSIS OF PANEL COINTEGRATON ON G-7 COUNTRIES	**Füsun ÇELEBİ BOZ**
16:20 – 16:40	MARKET CRASHES AND INVESTORS' ANTICIPATIONS	**Patrick LEONI**
16:40 – 17:00	THE IMPACT OF TECHNOLOGY AND SCIENCE ON CO2 EMISSIONS: THE CASE OF OECD	**Erhan İŞCAN** Neşe ALGAN Duygu SERİN
17:00 – 17:20	Am I Using the Right Data?	**Sıdıka Başçı**

29 APRIL 2017

09:00 - 17:00 : REGISTRATION

09:10 – 09:50
KEYNOTE SPEAKER : Prof.Dr. NARAYANASWAMY BALAKRISHNAN
Title: Meta Analysis of Censored Data

09:50 –10:00	**B R E A K**

HALL 1 / SESSION D

SESSION CHAIR	SEVİN UĞURAL	
TIME	**TITLE**	**PRESENTER**
10:00 – 10:20	ASSESSMENT OF THE RELATIONSHIP BETWEEN THE PATENT APPLICATIONS BY RESEARCHERS, INSTITUTIONS AND INVESTMENT IN EDUCATION: CASE OF TURKEY	**Müjgan DENİZ**
10:20 – 10:40	MARKOV SWITCHING RISK AVERSION AND ASYMMETRIES AT THE ZERO LOWER BOUND	**Riyad ABUBAKER**
10:40 – 11:00	ENDOGENEITY AND NONLINEARITY IN THE ENVIRONMENTAL KUZNETS CURVE: ACONTROL FUNCTION APPROACH	**Sinem Güler Kangallı UYAR** Ebru CAGLAYAN AKAY

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11:40 – 12:00	EFFICIENT FRONTIER APPROACH TO DETERMINE PERFORMANCE OF INDIVIDUAL PENSION FUND COMPANIES: EVIDENCE FROM TURKEY	**Umut UYAR** Hakan AYGOREN Goksal Selahatdin KELTEN
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12:20 – 12:40	PASS-THROUGH FACTORS OF THE INFLATION RATE IN NORTH CYPRUS	**Kemal BAĞZIBAĞLI**

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15:00 – 15:20	DISTRIBUTION OF THE SECOND UPPER RECORD STATISTICS FROM BIVARIATE SAMPLE	**Gülder KEMALBAY**
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SESSION CHAIR	Eugenia STOIMENOVA	
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16:20 – 16:40	INTEGRATING INDEPENDENT COMPONENT ANALYSIS and ARTIFICIAL NEURAL NETWORKS in FINANCIAL TIME SERIES	**Nurbanu BURSA** Hüseyin TATLIDİL
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SESSION CHAIR	Eugenia STOIMENOVA	
TIME	**TITLE**	**PRESENTER**
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Contents

MARKOV SWITCHING RISK AVERSION AND ASYMMETRIES AT THE ZERO LOWER BOUND

Riyad ABUBAKER

Abstract

When the nominal interest rate hits the Zero Lower Bound, the coefficient of the risk aversion becomes the sole determinant of the relationship between output and inflation expectations. In this paper, I propose a Markov-switching risk aversion where the coefficient of the risk aversion switches between high and low risk regime. Then, I show that risk-aversion plays a crucial role in the impact of macroeconomic shocks -especially when the economy is constrained with the ZLB. I assume that the Fed cannot lower the interest rate below Zero as a response to the negative inflation and aggregate demand shocks. However, on the other hand, positive shocks grant the Fed more flexibility to respond to these shocks. For this reason, I demonstrate that the impact of macroeconomic shocks at the ZLB is asymmetric with respect to whether the shocks are positive or negative

BEYOND THE 2008 FINANCIAL CRISIS: THE NEW POLITICAL ECONOMY OF THE FOREIGN PAYMENT ISSUES IN TURKEY

A.Niyazi ÖZKER

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Abstract

In this study, we aim to put forth the new political foreign payments approaches matters in the scope of basic structural evaluations including financial politics alterations in Turkey as a developing country. Hence, the matter of foreign payments balances should be over taken as a the fairly important component and macro financial option in order to cope with the negative remnants of global financial crisis especially for developing countries, like Turkey, after 2008. Financial crisis management has been harmed by the political foreign economically approach especially due to the failed foreign exchange policies in Turkey for a long time. In addition, it appears that certain financial foreign exchange practices related to foreign payments balances have been meaningless to the financial policies to prevent the effects of 2008 in the deep financial distress. These related results of new today's reasons are required to express this current foreign payments issue among current account deficits in the conclusions of new financial analysis. Because, the current deficits fact that has been directly come into existence via foreign payments levels bring up the meaningful financial affect levels which could be cored with on the economic growth and that should be considered in the scope of new foreign payments politics in Turkey. In this context, it has been considered to put forth required observable indicators of the crisis, and structural severity of the crisis within striking variables that can be linked to these talked of variables.

Key Words: *Economic Development; Foreign Payments; Political Economy; Financial Crisis; Globalization Process; Foreign Exchanges* ;

JEL Codes: E62; F31; F38; F62; F65.

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AM I USİNG THE RİGHT DATA?

Assist. Prof. Sıdıka BAŞÇI[1] , Prof. Dr. Asad ZAMAN[2]

Abstract

"Rhetoric" is the art of persuading others. Since one of the aims of statistics is to persuade people, it can be considered as a branch of rhetoric. The special thing about statistics is that it uses numbers rather than words in this process. This study tries to summarize the problems that can be faced while starting to work with data and moreover it also focuses on the points necessary to overcome these problems. In fact, research requires as the first and maybe the most important step understanding the data perfectly. One has to ask questions like where these data are coming from, how trustable they are and what they do mean. In other words, one has to ask the question "Am I using the Right Data?" The answer to this question is very important because all of the emprical results that will be obtained later on and the arguments that will be produced after obtaining the results will entirely depend on the data that are used. If there is a problem with the data the results and arguments can lead to illusion. Unfortunately, in most of the applied statistical and econometric studies this first step is mostly ignored. No one should be blamed for this situation because importance of analysis of data is very recently realised. This study focuses on the example of measuring the wealth of nations in order to explain the mentioned problems.

Key Words: Data interpratation, Economics Teaching Methodology, Wealth of Nations

JEL Codes: C81, C82**,** A20, B23,

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MARKET CRASHES AND INVESTORS' ANTICIPATIONS

Patrick L. LEONI*

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Abstract
In a general Stochastic Dynamic General Equilibrium framework, We first explicit an equilibrium relationship between (possibly) subjective assessments of the likelihood of drop in aggregate endowments and next period equilibrium returns of financial assets. This relationship shows that the greater the anticipation of future drops in endowments, the greater the magnitude of the market crash. Using US market data for the 1961-2015 period, we first operationalize the definition of market crashes using an elasticity of variance definition. Using a Bayesian SVAR framework, we then highlight a positive im-pact of unexpected negative shocks of the yield curve on the likelihood of a stock market crash. These results are robust to different maturities of the yield curve and offer support to our theoretical insights.

JEL codes: G12, G14.
Keywords: *Market crashes, Investors' psychology, Market anticipation*.

EFFICIENT FRONTIER APPROACH TO DETERMINE PERFORMANCE OF INDIVIDUAL PENSION FUND COMPANIES: EVIDENCE FROM TURKEY

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Abstract

In Turkey, there are two types of pension fund systems. One of them is general social security system which the fund is managed by formal government institutions. The other one is individual pension fund system that the fund is managed by private insurance companies. Individual pension fund system in Turkey, not only serves to social security reform but also has an important role in the development of the financial system since October 27, 2003. Every private insurance company has their own pension fund types that investors may choose them and create their portfolios.

Although there are many studies to measure the performances of the pension funds in the literature, such as Sharpe Ratio, Treyner Ratio, etc. It is well known that those performance ratios focus on the risk-free rates and the market indexes as a benchmark to measure the performance of funds as well as pension fund companies. In this study, we propose a new approach to measure pension fund companies' performances by presenting a new benchmark namely the efficient frontier generated by all individual pension funds.

In this paper, to measure the performance of pension fund companies, all individual pension funds are grouped in terms of their own companies and created optimal portfolios for different levels of risks i.e. efficient frontiers. Then efficient frontier of each company is compared to the benchmark efficient frontier. According to the comparison of efficient frontiers, the companies' performances are discussed from the closest to the most distant.

Within the scope of this study, 176 individual pension funds from 16 pension fund companies were used and the pension funds daily return data gathered from The Capital Markets Board's database for the period of 2006 – 2016. The analyses based on seven research sample windows which contains different time periods for comparing the efficient frontiers (2006-2016; 2007-2016; 2008-2016; 2009-2016; 2011-2016; 2012-2016; 2013-2016).

It is concluded that according to the widest three sample windows, Anadolu Hayat Emeklilik portfolio has the closest efficient frontier to benchmark efficient frontier (2006-2016; 2007-2016; 2008-2016). On the other hand, while sample windows narrowed, Avivasa Emeklilik ve Hayat portfolio and Allianz Hayat ve Emeklilik portfolio have the closest to the benchmark efficient frontier (2009-2016; 2011-2016; 2012-2016; 2013-2016). As a result, considering the over eight years' performances, Anadolu Hayat Emeklilik portfolio has the highest returns. On the other hand, according to the less than eight years' performances, Avivasa Emeklilik ve Hayat and Allianz Hayat ve Emeklilik portfolios have the highest returns.

Key Words: *Individual Pension Funds, Efficient Frontier, Fund Performance*

ASSESSMENT OF THE RELATIONSHIP BETWEEN THE PATENT APPLICATIONS BY RESEARCHERS, INSTITUTIONS AND INVESTMENT IN EDUCATION: CASE OF TURKEY

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Abstract

This paper quantifies the patent applications regarding the effect of increasing academic investments and education expenditures in Turkey. For the last fifteen years, number of universities, research institutes (both state and private) and university graduates has increased sharply. It is important to look for the pecuniary and non-pecuniary returns of education to individuals and society. As a growing trend in the world, innovation-based growth has occupied the most efficient part of the whole economic growth. For this reason, innovation that depends on science and technology has become more studied subject in economic growth models and economics of education. As a result of rising investments and support for scientific research and educational facilities; many new bright ideas and patent applications by Turkish university students or researchers has appeared. To sum-up, this study has considered the applications for an invention and a new technology or a development in scientific products by university departments or a research institution.. etc. Finally, the relationship between investment in education as well as R&D and the number of patents applications throughout the last decade in Turkey has been further analysed.

Key Words: *Education; Research and Development; Innovation; Growth; Technology*

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THE IMPACT OF TECHNOLOGY AND SCIENCE ON CO2 EMISSIONS: THE CASE OF OECD

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Ph.D. Candidate Duygu SERİN[3]

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Abstract

Information and Communication Technologies refer to electronic equipment and related software to convert, store, and process, communicate and retrieve digitized information. This includes technology, equipment, software and service elements and both technology infrastructure and end-user devices. In other words, information and communication technology applications may cover both technology products, components and information and communication technology based services. In the literature many studies analysed the impacts of information and communication technology on economy but beside these impacts only few of the literature analysed the impact of information and communication technology usage to increase energy efficiency for eliminating the carbon emissions to mitigate the climate change. Increase in the usage of information and communication technology can effect on carbon emissions in three ways. First, direct emissions associated with information and communication technology production, use and disposal. Second, technologies facilitate emission reductions in other industries due to the use of specific factors. Third, technologies for monitoring and managing processes or for dematerializing products decrease the usage of energy by saving. Information and communication technology usage reduces transportation costs or process costs and increases productivity and energy efficiency, and thus this contributes to the reduction of carbon emissions while leading to economic growth [1]. On the other hand, in the literature some of the studies supported the technological progress-led policy framework to mitigate climate change. Research and development spending is the main promoter of the technological progress. Especially, increasing research and development spending promotes the progress of the low-carbon technologies [2]. Technological progress increases the efficiency and with these low-carbon technologies the carbon emissions will decrease. In short, improving technology by research and development spending will mitigate the climate change. Although the literature of the impact of technological progress and information and communication technology on economic growth has increased but the impact of them on carbon emissions reduction has not been examined in depth and its effect is broadly unknown. Therefore, the aim of this study is to analyze relationship between information and communication technology and carbon emissions, using dynamic panel method. It is different from most literature from a perspective of information and communication technology because a research and development spending variable is included in the model [3]. For that purpose, we used a data set of selected The Organization for Economic Co-operation and Development countries between the periods 2003-2014. The data for all countries obtained from the World Bank's Development Indicators. As a conclusion it is found that information and communication technology and research and development spending have positive and statistically significant effect on carbon emissions for selected countries. This empirical finding contributed to advancing the existing literature, and also draws special attention of policymakers [4]. Based on the findings, policy makers should change their policy for economic growth by using technology for reducing carbon emissions to mitigate climate change.

Key Words: *Information and Communications Technology; Research and Development; Carbon Emissions; Dynamic Panel Data Analysis; OECD Countries*

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Acknowledgements

This study was supported by Research Fund of the Cukurova University.

ENDOGENEITY AND NONLINEARITY IN THE ENVIRONMENTAL KUZNETS CURVE: A CONTROL FUNCTION APPROACH

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Abstract

This paper examines the existence of an Environmental Kuznets Curve (EKC) across countries in 3 different groups during the period 1995–2013. These country groups classified by the Annex of the Framework Convention on Climate Change are Annex II (16 countries), Transition (8 countries) and Non-Annex I (58 countries). The basic model of the EKC is a polynomial equation of real GDP per capita. In this study, the EKC model estimated for CO_2 emission per capita is augmented by adding some variables such as trade, urban population, fossil-fuel consumption and service sector as control variables. In order to model the nonlinear relationships between variables, nonparametric approaches allowing to functional form flexibility are used. Although nonparametric models have been used by a wealth of studies investigating the existence of the EKC, the endogeneity issue is almost never addressed for this kind of models. Trade and real GDP per capita variables are possible endogenous variables because of the reverse causality with CO_2 emission per capita. For this reason, the endogeneity issue is considered for EKC models in the nonparametric form using control functions approach. The findings of the study show that real GDP per capita variables are statistically insignificant in the nonparametric EKC models constructed for Annex II and Transition groups. After controlling the endogeneity problem using control functions both for trade and real GDP per capita, these variables are found statistically significant. However, the estimated EKC models for each country group do not support the existence of the Environmental Kuznets Curve following an inverted-U shaped pattern. Furthermore, the estimated EKC models suggest that the relationship between CO_2 emission per capita and real GDP per capita is, in fact, linear for Transition and Annex II groups. The study also points out the existence of nonlinearity in the relationship between CO_2 emission per capita and the other variables for each country group. Finally, model specification tests reject parametric EKC models in linear form in favor of nonparametric models allowing nonlinear relationships.

Key Words: *Environmental Kuznets Curve; CO_2 emissions; Nonparametric models; Endogeneity; Control Functions Approach*

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TWIN DEFICIT PROBLEM AND FELDSTEIN HORIOKA HYPOTHESIS: THE ANALYSIS OF PANEL COINTEGRATON ON G-7 COUNTRIES

Füsun ÇELEBİ BOZ[1]

Abstract

In this study, the validity of the Feldstein Horioka hypothesis and twin deficit are investigated using current account deficits, budget deficits and investment variables of 6 countries which is considered as seven developed countries for 1994-2015, except for the United States, as a result of the empirical analysis, it is decided that the cointegration relation exists and the series are cointegrated with each other since they are stationary in series I (1). According to the results obtained from the study, while the budget deficit and the current deficit move together and the twin deficit hypothesis appears to be valid The effect of the current deficit in the positive direction of the increase in investments indicates the validity of the Feldstein-Horıoka hypothesis. The fact that the investment coefficient is equal to 1 indicates that it is fully integrated with the world economy. In this study coefficient of investment is less than 1, this indicates that about 65% of the domestic investments are financed by foreign sources in terms of the countries studied. Therefore, in order to increase the domestic investments, the economics directors should pay attention to the domestic savings and apply reducing budget-deficit policies.

Key Words: Twin Deficit, Feldstein-Horioka Hypothesis, G-7, Panel Cointegration

Jel Codes: F32, E22, C23