

2015

# Economic Theory, Policy and Applications Abstracts

Tenth Annual International  
Symposium on Economic  
Theory, Policy and Applications  
20-23 July 2015, Athens, Greece

Edited by Gregory T. Papanikos

THE ATHENS INSTITUTE FOR EDUCATION AND RESEARCH





Economic Theory, Policy and  
Applications Abstracts  
10<sup>th</sup> Annual International  
Symposium on Economic  
Theory, Policy and  
Applications, 20-23 July 2015,  
Athens, Greece

Edited by Gregory T. Papanikos

First Published in Athens, Greece by the Athens Institute for Education and  
Research.

ISBN: 978-960-598-022-1

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8 Valaoritou Street  
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# Preface

This abstract book includes all the abstracts of the papers presented at the *10<sup>th</sup> Annual International Symposium on Economic Theory, Policy and Applications, 20-23 July 2015, Athens, Greece*, organized by the Athens Institute for Education and Research. In total there were 30 papers and presenters, coming from 18 different countries (Albania, Brazil, Canada, China, Colombia, Germany, Hong Kong, Italy, Malaysia, Mexico, Portugal, Romania, Russia, South Korea, Sweden, Turkey, UK and USA). The conference was organized into nine sessions that included areas such Fiscal, Monetary and Exchange Rate Policy, Microeconomic and Industry Studies, Finance and other related fields. As it is the publication policy of the Institute, the papers presented in this conference will be considered for publication in one of the books and/or journals of ATINER.

The Institute was established in 1995 as an independent academic organization with the mission to become a forum where academics and researchers from all over the world could meet in Athens and exchange ideas on their research and consider the future developments of their fields of study. Our mission is to make ATHENS a place where academics and researchers from all over the world meet to discuss the developments of their discipline and present their work. To serve this purpose, conferences are organized along the lines of well established and well defined scientific disciplines. In addition, interdisciplinary conferences are also organized because they serve the mission statement of the Institute. Since 1995, ATINER has organized more than 150 international conferences and has published over 100 books. Academically, the Institute is organized into four research divisions and nineteen research units. Each research unit organizes at least one annual conference and undertakes various small and large research projects.

I would like to thank all the participants, the members of the organizing and academic committee and most importantly the administration staff of ATINER for putting this conference together.

**Gregory T. Papanikos**  
**President**





**FINAL CONFERENCE PROGRAM**  
**10<sup>th</sup> Annual International Symposium on Economic Theory, Policy  
and Applications, 20-23 July 2015, Athens, Greece**

**Conference Venue: Titania Hotel, 52 Panepistimiou Avenue, Athens,  
Greece**

**Organization and Scientific Committee**

1. Dr. Gregory T. Papanikos, President, ATINER & Honorary Professor, University of Stirling, UK.
2. Dr. Chris Sakellariou, Vice President of Financial Affairs, ATINER, Greece & Associate Professor, Nanyang Technological University, Singapore.
3. Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
4. Dr. John Roufagalas, Head, Economics Research Unit, ATINER & Professor, Troy University, USA.
5. Ms. Olga Gkounta, Researcher, ATINER.

**Administration**

Stavroula Kyritsi, Konstantinos Manolidis, Katerina Maraki & Kostas Spiropoulos

**Monday 20 July 2015**

(all sessions include 10 minutes break)

**08:00-09:15 Registration and Refreshments**

**09:15-09:30 (ROOM A) Welcome & Opening Remarks**

- Dr. Gregory T. Papanikos, President, ATINER & Honorary Professor, University of Stirling, UK.
- Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.

**09:30-11:00 Session I (ROOM A): R&D - Development - Agriculture - Environment**

**Chair:** George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.

1. Norman Sedgley, Professor, Loyola University Maryland, USA, John Burger, Loyola University Maryland, USA & Kerry Tan, Loyola University Maryland, USA. Macroeconomic Shocks and Corporate R&D.
2. Jesper Stage, Professor, Lulea University of Technology, Sweden, James MacGregor & Dick Svedin, Lulea University of Technology, Sweden. Striking the Right Balance: Balancing Power and Environmental Improvements in Swedish Hydropower.
3. Supratim Das Gupta, Assistant Professor, Universidad de Guanajuato, Mexico. Polluting Resources to Green Technologies: An Optimum Switch.
4. Xiyi Yang, Ph.D. Candidate, The University of Hong Kong, Hong Kong, Di Guo, Assistant Professor, The University of Hong Kong, Hong Kong, Kun Jiang, Lecturer, Roehampton University Business School, U.K. & Chenggang Xu, Professor, The University of Hong Kong, Hong Kong. Industrial Clustering, Growth and Inequality in China.

**11:00-12:30 Session II (ROOM A): Finance & Other Studies**

**Chair:** \*Christian Dreger, Research Director, German Institute for Economic Research, Germany.

1. Konstantinos Baltas, Fellow, London School of Economics and Political Science, U.K. & Lecturer (Visitor), Queen Mary University of London, U.K. Assessing Bank Efficiency and Stability.
2. Isaiah Hull, Research Economist, Sveriges Riksbank, Sweden. The Macro-Financial Implications of House Price-Indexed Mortgage Contracts.
3. Siqi Liu, Lecturer, Military Economics Academy, China & Zhang Xueqing, Military Economics Academy, China. Construction of Multi-Level Capital Markets and Military Enterprise Technology Innovation.
4. Anastassios Gentzoglanis, Professor, University of Sherbrooke, Canada. Regulatory Arbitrage in the Financial Industry.

**12:30-13:30 Lunch**

**13:30-15:00 Session III (ROOM A): Studies on the Euro Area and the EU**

**Chair:** Ioannis Kallianiotis, Professor, University of Scranton, USA.

1. \*Christian Dreger, Research Director, German Institute for Economic Research, Germany & Hans-Eggert Reimers. On the Relationship between Public and Private Investment in the Euro Area.
2. \*Leonida Correia, Assistant Professor, University of Tras-os-Montes and Alto Douro, Portugal & Daniela Carvalho, MSc Student, University of Tras-os-Montes and Alto Douro, Portugal. Cyclical Dynamics of Unemployment: Portugal versus Euro Area.
3. \*Titos Ritsatos, Assistant Professor, The College of Mount Saint Vincent, USA. A Behavioural Explanation of Fiscal Trap, the Case of Greece.

**15:00-17:00 Session IV (ROOM A): Fiscal, Monetary and Exchange Rate Policy**

**Chair:** \*Titos Ritsatos, Assistant Professor, The College of Mount Saint Vincent, USA.

1. Ioannis Kallianiotis, Professor, University of Scranton, USA. Fed and Target Rates and its Efficiency.
2. Pak Hung Mo, Associate Professor, Hong Kong Baptist University, Hong Kong. Prosperity or Stagnation: the Role of Government Expenditures.
3. \*Beate Sauer, Postdoc and Lecturer, Bundeswehr University Munich, Germany. Central Bank Behavior Concerning the Level of Bitcoin Regulation as Policy Variable.
4. Luciane Cristina Carvalho, Postdoctoral Student, State University of Maringa, Brazil & Maria Helena Ambrosio Dias, State University of Maringa, Brazil. Coordination of Fiscal Policy and Monetary in Brazil: 2000-2012.
5. Nursilah Ahmad, Senior Lecturer, Universiti Sains Islam Malaysia (USIM), Malaysia. Conditional Volatility and Correlations of the Sukuk Issuing OIC Member Countries Exchange Rates Using GARCH-DCC.

**17:00-18:30 Session V (ROOM A): Round Table Discussion on "*Country Experiences of the European Crisis*"**

**Chair:** Dr. Gregory T. Papanikos, President, Athens Institute for Education and Research (ATINER) & Honorary Professor of Economics, University of Stirling, U.K.

1. Dr. **Christian Dreger**, Research Director, DIW Berlin, Germany.
2. Dr. **Ioannis Kallianiotis**, Professor, University of Scranton, USA.
3. Dr. **Leonida Correia**, Assistant Professor, University of Tras-os-Montes and Alto Douro, Portugal
4. Dr. **Jesper Stage**, Professor of Economics, Luleå University of Technology, Sweden.
5. Dr. **George K. Zestos**, Jean Monnet Chair of European Integration & Professor of Economics, Christopher Newport University, USA.

**21:00-23:00 Greek Night and Dinner (Details during registration)**

## Tuesday 21 July 2015

(all sessions include 10 minutes break)

### 09:00-11:00 Session VI (ROOM A): Microeconomic and Industry Studies

**Chair:** Gabriel Bobeica, Senior Lecturer, Bucharest University of Economic Studies, Romania.

1. \*Jhon James Mora Rodriguez, Professor, Icesi Univeristy, Colombia, \*Carolina Caicedo Marulanda, Assistant Professor, Universidad Autonoma de Occidente, Colombia, Jose Pla Barber, Universidad de Valencia, Colombia & Fidel Leon Darder, Universidad de Valencia, Colombia. A Microeconometric Analysis of the Springboard Subsidiary: The Case of Spanish Firms.
2. Gulden Boluk, Lecturer, Assistant Professor, Akdeniz University, Turkey & Suleyman Karaman, Lecturer, Assistant Professor, Akdeniz University, Turkey. Market Power and Price Asymmetry in Farm-Retail Transmission in the Turkish Meat Market.
3. Suleyman Karaman, Lecturer, Assistant Professor, Akdeniz University, Turkey & Gulden Boluk, Lecturer, Assistant Professor, Akdeniz University, Turkey. Exploratory Spatial Data Analysis of Dairy Cattle Sector in Turkey.
4. Zhaklina Dhamo, Ph.D. Candidate, University of Tirana, Albania & Vasilika Kume, Professor, University of Tirana, Albania. Cost of Financial Distress: A Comparative Study among three industries in Albania.
5. \*Mario Alberto Garcia Meza, Ph.D. Student, Instituto Politecnico Nacional, Mexico, Ana Lilia Valderrama Santibanez, Instituto Politecnico Nacional, Mexico & Omar Neme Castillo, Instituto Politecnico Nacional, Mexico. Innovation in Micro and Small Enterprises: Skills and Knowledge in the Individual.

### 11:00-12:30 Session VII (ROOM A): Essays on Economic Theory

**Chair:** \*Jhon James Mora Rodriguez, Professor, Icesi Univeristy, Colombia.

1. Marc Henry, Professor, The Pennsylvania State University, USA. Single Market Nonparametric Identification of Multi-Attribute Hedonic Equilibrium Models.
2. Gabriel Bobeica, Senior Lecturer, Bucharest University of Economic Studies, Romania. Towards a Micro-Founded Model with Nonlinear Expectations.
3. Luigi Senatore, Lecturer, University of Salerno (DISES), Italy, Cristian Barra, University of Salerno (DISES), Italy & Giovanna Bimonte, University of Salerno (DISES), Italy. Environmental Agreement and Coalitional Games: Alternative Theoretical and Empirical Methods.
4. Yulia Sleptsova, Researcher, Central Economics and Mathematics Institute of Russian Academy of Sciences, Russia & Roman Kachalov, Head, Central Economics and Mathematics Institute of Russian Academy of Sciences, Russia. Structuring Economic System Resource as a Tool for Risk Management.

**12:30-13:30 Lunch**

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**13:30-15:00 Session VIII (ROOM A): Applied Studies**

**Chair:** \*Xue Mei Lan, Administrative Director, Chengdu Pride Industrial Group, China.

1. Seunghui Han, Ph.D. Candidate, Seoul National University, South Korea.  
The Effect of Weather on Voter Turnout: Evidence from Korean Elections.

**15:00-16:30 Session IX (ROOM A): Development - Agriculture - Environment**

**Chair:** Nursilah Ahmad, Senior Lecturer, Universiti Sains Islam Malaysia (USIM), Malaysia.

1. Gustavo Bittencourt Machado, Professor, Federal University of Bahia, Brazil. Familiar Farmer Multifunctionality and Policies to Overcome the Extreme Poverty in the Brazilian Semiarid.
2. \*Joan Miguel Tejedor Estupinan, Professor and Editor, Universidad Catolica de Colombia, Colombia. Political Economy, Development and Human Rights, in the Framework of the Free Trade Agreement between Colombia, Peru and European Union.
3. \*Xue Mei Lan, Administrative Director, Chengdu Pride Industrial Group, China & Kim Seng Lim, CEO, Banque de Developpement de Guinee SA, Guinea. The Infrastructure Development in the Republic of Guinea.
4. \*Felicitas Nowak-Lehmann D., Senior Researcher, University of Goettingen, Germany & Elena Gross, Post-doctor, University of Bayreuth, Germany. How does Development Aid Affect Productivity Growth in Recipient Countries?

**17:30-20:00 Urban Walk (Details during registration)**

**20:30- 22:00 Dinner (Details during registration)**

**Wednesday 22 July 2015**  
**Cruise: (Details during registration)**

**Thursday 23 July 2015**  
**Delphi Visit: (Details during registration)**

**Nursilah Ahmad**

Senior Lecturer, Universiti Sains Islam Malaysia (USIM), Malaysia

**Conditional Volatility and Correlations of the Sukuk  
Issuing OIC Member Countries Exchange Rates Using  
GARCH-DCC**

The study estimates the conditional volatility and correlations between exchange rates over time with respect to direction (positive or negative) and size (stronger or weaker) for 11 Sukuk issuing Organization of Islamic Cooperation (OIC) member countries. The conditional volatility and correlations are measured using univariate GARCH-DCC covering the period 1990:01-2013:12. Data are sourced from the World Economic Outlook and SESRIC database. The findings indicate that countries adopting Monetary Aggregate Target policy framework exhibit highly volatile exchange rates movement, with the estimate very close to unity implying a gradual volatility decay. The policy implications of this findings are that the policy makers and Shariah investors should monitor these correlations since it indicates the market's appetite for risk in the context of currency markets for Islamic assets. Currency consideration is also one of the important considerations for the ability to attract cross-border issuance.

**Konstantinos Baltas**

Lecturer, Queen Mary University of London, UK

## **Assessing Bank Efficiency and Stability**

In this paper we introduce a new banking efficiency indicator that includes efficiency and stability conditions. This indicator relies on the leverage as a proxy of a bank's risk and stability. Banks' leverage played an important role in the last financial crash as well as in the Basel III new regulatory rules. The results of the econometric investigation using a large sample of American commercial banks show that profit efficiency indicators including leverage are better predictors of future profits than current indicators including other measures of bank risk. This is particularly evident for the period during the 2007 -2009 financial crisis.

**Gustavo Bittencourt Machado**

Professor, Federal University of Bahia, Brazil

## **Familiar Farmer Multifunctionality and Policies to Overcome the Extreme Poverty in the Brazilian Semi-arid**

This paper aims to present the results of the research called *Familiar farmer multifunctionality and strategies to overcome the extreme poverty in the Chapada Diamantina Territory, semi-arid of Bahia, Brazil*, that proposes to comprehend the production and activity systems of rural and indigenous communities in the Chapada Diamantina country, a region with mountains of Bahia semi-arid, and its strategies for extreme poverty overcome through the recognize of public functions of the rural families in these communities, destined to the environmental preservation (environmental function), knowledge transfers between generations (education function). In Brazil, this discussion has the barriers about the sources to finance these functions. The Green Scholarship Program of Brazil Without Misery consists on the first national policy related to the strategies to overcome the extreme poverty, considering the environmental services and extreme poverty to overcome the extreme poverty. This paper tries to consider these public policies, using the analyses tools to understand the familiar small farmer diversity, including the Agrarian Systems Diagnostic-Analyses Method and the new intervention methods. The case study is the Chapada Diamantina Territory, specifically Itaetê municipality, in the agrarian reform settlements where there is a part of extreme poverty situations of this territory. It has the first experiences for the green scholarship program, family scholarship program complement, and 97 families were interviewed during the research. With two kinds of scholarship, some families overcame the extreme poverty and others not, considering the agricultural and not-agricultural incomes, that were calculated. It is necessary to know the extreme poverty overcome policies because, in many situations, the family scholarship and green scholarship combination does not overcome the extreme poverty situation and in others, this combination give positive results, when some families leave the extreme poverty, but they continue to be in poverty conditions yet.



**Gabriel Bobeica**

Senior Lecturer, Bucharest University of Economic Studies, Romania

## **Towards a Micro- Founded Model with Nonlinear Expectations**

The aim of this paper is to discuss the possibility to elaborate a macroeconomic model with micro-foundations, similar to a Dynamic Stochastic General Equilibrium (DSGE) type, but with nonlinear expectations.

Among the classes of nonlinear expectations several are noteworthy:

Choquet expectations, G-expectations, and distorted probabilities. From this list, the present study selects the notion of G-expectations, that was introduced by Peng (2006, 2007a) using a nonlinear heat type equation and that may be applied in the study of problems with uncertainty about volatility. In a series of papers Peng (2007b, 2008) and others (Guo et al., 2012; Hu et al., 2012) develop also the stochastic calculus based on the G-Brownian motion, the canonical process under G-expectation. The GBrownian motion drives the stochastic differential equation (SDE) that governs the dynamics of the state variables.

The main ingredients needed for the model are: (i) the economic actors, capturing essential features such as optimizing behaviour and infrequent Calvo pricing; (ii) a nonlinear specification of expectations; (iii) the stochastic framework defined by the way expectations are formed; (iv) a model for the performance (cost) function and (iv) the tools needed to solve optimal control problem obtained by the combination of (iii) with (iv).

Dynamic consistency requires recursive definition of the utility function, the objective functional being introduced for the class of G-expectations as the solution of a nonlinear backward SDE driven by G-Brownian motion.

Changing the very nature of the way expectations work would enrich micro- founded models with a structure able to represent: complex behavior of economic agents (capturing phenomena such as uncertainty, ambiguity, and the aggregation of heterogeneous individuals); frictions (e.g. the existence of bid-ask spreads) and incompleteness of financial markets; robust and prudent monetary policy making.

**Gulden Boluk**

Lecturer, Assistant Professor, Akdeniz University, Turkey  
&

**Suleyman Karaman**

Lecturer, Assistant Professor, Akdeniz University, Turkey

## **Market Power and Price Asymmetry in Farm-Retail Transmission in the Turkish Meat Market**

Increasing food prices and volatility for major agricultural products have recently raised concerns and posed risks for consumers and policy makers. However, as shown by many empirical studies, the transmission of these price changes are not being fully and immediately reflected along with the marketing chain. As underlined by von Cramon-Taubadel (1998), the general belief is that middlemen in the food marketing chain uses market power to pass on input price raises to consumers more rapidly and completely, than input price reductions. Price transmission in a supply chain can be described as "asymmetric" if the prices move in the different directions and the same direction but not at the same time (DairyCo, 2011). As stated by Meyer and von Cramon Taubadel (2002), since the flexible prices are required for efficient resource allocation in neo-classical economics, Asymmetric Price Transmission (APT) is of great importance.

The Turkish food industry as well as the livestock sector has experienced many structural changes in recent years. Increased consolidation together with the increase in food prices and volatility raised the common concern that wholesaler/retailers respond faster to increases in the producer prices of than to decreases in food sector. There were some complaints against the meat producers to Turkish Competition Authority (TCA) related to monopsony power abusing in 2010 (TCA, 2010).

The aim of this study is to investigate and compare the dynamics of price transmission and marketing margins on Turkish red meat markets. To our best knowledge, there has been no study examined the asymmetric price transmission for meat and meat products in Turkey. We apply the Gregory-Hansen (1996) cointegration technique, allowing for the presence of potential structural breaks in data, to empirically examine the long-run relationship as well as the short-run error correction mechanisms (ECM) between farm and retail prices of red meat.

**Luciane Cristina Carvalho**

Postdoctoral Student, State University of Maringa, Brazil

&

**Maria Helena Ambrosio Dias**

State University of Maringa, Brazil

## **Coordination of Fiscal Policy and Monetary in Brazil: 2000-2012**

This paper analyzes monetary and fiscal policies applied in Brazil from 2001 to 2012, by the theory of coordination of economic policies. The discussion within the literature about the necessity of policy coordination excels price stability and social well-being for the long run. Therefore, this study introduces the concepts of economic coordination, as well as the forms and structures that can be used as tools for the purpose of coordinating policies. Moreover, monetary coordination is addressed having as the primary instrument of transmission at interest rate, determined by the monetary policy committee - COPOM in Brazil, and fiscal policy having as main goal the primary surplus. It was considered that the coordination of macroeconomic policies on national markets is a necessary condition obtaining and maintaining common goals. However, the economic literature has not yet reached a consensus on this condition. During 2001 and 2012, the Brazilian economy registered relevant monetary, fiscal and exchange rate policy changes, going through phases of abrupt monetary and fiscal constraint, moderate, low and of seeking new restrictions via the management of the interest rate to achieve fiscal and monetary targets assumed with the domestic and foreign market. Verifying the interactions between fiscal and monetary policy, the structural vector autoregression model (SVAR) was applied to Brazil with the traditional monetary variables and fiscal ones over the determination of the interest rates. The government expenses and current revenues ratio and a new indicator of fiscal policy efficiency were used in the estimations. The results show there is policy coordination, but the welfare costs are high. Likewise, the results suggest that monetary policy is subordinated to fiscal policy. With the intention to verify the interaction between fiscal and monetary policy, we use the structural VAR model known SVAR with traditional monetary variables and fiscal variables that the relationship of expenditure with current revenue of the government. This work shows that the difficulty of achieving the objectives set by the central government, there were several manipulations of public accounts, indicating caution in the management of public debt. It was observed from the results that coordination, but the social costs are high.

Similarly, the results suggest that monetary policy is conditional on fiscal policy.

**Leonida Correia**

Assistant Professor, University of Tras-os-Montes and Alto Douro,  
Portugal

&

**Daniela Carvalho**

MSc Student, University of Tras-os-Montes and Alto Douro, Portugal

## **Cyclical Dynamics of Unemployment: Portugal versus Euro Area**

Since the adhesion to the European Monetary Union, the Portuguese unemployment rate has increased continuously, reaching historically high levels, especially during the more recent economic and sovereign debt crisis. In the euro area, some other countries has also been experiencing high levels of unemployment, which constitute cause of major concern and renewed the interest about the heterogeneity of unemployment in the euro area member States.

In this work we analyze and characterize the dynamics of the Portuguese unemployment in the recent past, trying to understand what groups have been most affected and how the austerity measures have influenced this problem.

Next we investigate the relationship between the cyclical behavior of the unemployment rate and business cycles since 1970's, emphasizing the comparison between Portugal and the first twelve countries that have adopted the euro. The results support a countercyclical behavior in most countries with great differences in the degree of association between the cycles of the two variables and also suggest that the introduction of the euro inducing more correlation for all the euro area countries.

Finally, we present some policy considerations drawn from our results.

**Supratim Das Gupta**

Assistant Professor, Universidad de Guanajuato, Mexico

## **Polluting Resources to Green Technologies: An Optimum Switch**

We have total energy produced by a representative firm using a non-renewable resource and a perfect substitute backstop. The backstop starts as significantly costlier relative to the non-renewable resource; however the average cost of the backstop is modeled to decrease with investments in knowledge. The knowledge stock represents the current operational techniques/technical know-how to use alternative energies and investments in knowledge can bring about better techniques reducing costs to use these energies. We model the knowledge stock as an impure public good such that an individual firm only partially benefits from its own knowledge accumulation. The result is that a firm in equilibrium invests less in the backstop relative to the social planner and the planner also exhausts the depletable resource sooner. Adding flow pollution to the model, the time of switch to the backstop in the planner solution depends on the relative magnitudes of the average pollution cost and the average cost of the backstop. Rise in the pollution cost implies slower extraction of the exhaustible resource and a later switch (compared to the case without pollution); however for a too high pollution cost, the extraction rate rises and switch to the backstop is made sooner leaving some of the non-renewable resource stock in the ground. We use sophisticated numerical methods in Mathematica to obtain explicit solutions for both the models.

**Zhaklina Dhamo**

Ph.D. Candidate, University of Tirana, Albania

&

**Vasilika Kume**

Professor, University of Tirana, Albania

### **Cost of Financial Distress: A Comparative Study among three industries in Albania**

In this paper are compared the “potentials” for financial distress of the energy, telecommunication, and construction sector in the Albanian economy. There is applied the methodology suggested by Altman (2000) for predicting financial distress. In line with Altman (2000), there are used the ratios that involve the working capital, retained earnings, EBIT, revenues and total assets. The market value of equity is substituted with the book value of equity, considering the fact that the stocks of no Albanian company, to the best of our knowledge, is publicly traded. The Z score, which is calculated using the five ratio factor model of Altman (2000), determines the probability of default of the Albanian companies considered in this research. There are compared and contrasted insolvency potentials of the three industry sectors considered in this research. The data are taken from the National Registration Center (NRC) of Albanian businesses. This research, due to lack of financial market classifications, takes into consideration privately held corporations classified as “VIP” from the Albanian Tax Authority. The cross sectional industry comparison of default characteristics may “bring light” to the internal problematic issues that may result in default. Thorough analysis of the results of this work may help other companies in Albania or the region, since exposed to similar internal/external corporate governance issues, to comprehend the sources and prevent bankruptcy, or improve company’s performance by revising management practices. This may be particularly valid for the three industries considered in this research.

**Christian Dreger**

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&

**Hans-Eggert Reimers**

## **On the Relationship between Public and Private Investment in the Euro Area**

This paper explores the long run relationship between public and private investment in the euro area. Panel econometric techniques allowing for international spillovers are employed. Private and public capital stocks are both  $I(2)$  and cointegrated. The deviations from the stock equilibrium are not (trend) stationary, but  $I(1)$ . Utilizing them in a model for investment flows improves the cointegration evidence between the  $I(1)$  variables. In fact, private investment flows, GDP and the real interest rate appear to be cointegrated when the deviations from the stock equilibrium are included. The corresponding error correction equation is well behaved if changes in private investment flows are explained. Therefore, the lack of public investment may have restricted private investment and GDP growth in the euro area. The results have strong implications for the future direction of fiscal austerity programs to combat the euro area debt crisis.



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&

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### **Innovation in Micro and Small Enterprises: Skills and Knowledge in the Individual**

One way to increase the value added of micro and small business (MSB) is innovation, which starts from intellectual capital, within skills, attitudes, motivations and knowledge are the key piece. Innovation is seen as a process resulting from the formation of skills of labor, and education or training and experience lead to individual innovation. Thus, externalities of such skills translate into successful innovation processes (generation, development or modification of products and processes). Also, in transit through the spiral of innovation, which involves one step of creativity and one of entrepreneurship, come into play three interrelated types of human skills: basic, secondary and innovation. Thus, the aim of the paper is to describe the importance of skills and knowledge on the individual to the innovation process in Mexican MSB.

**Anastassios Gentzoglanis**

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## **Regulatory Arbitrage in the Financial Industry**

This paper analyzes the problems of designing an optimal financial regulation that reduces regulatory arbitrage in the financial industry. It argues that the elimination of the regulatory arbitrage should not be the ultimate objective of current negotiations to the harmonization of extraterritorial financial regulation. Instead, politicians and international regulatory authorities should agree to the establishment of "*minimum standards of regulation*" and what constitutes an "*optimal regulation from an international perspective*" and leave national regulators to adopt, modify and replace old regulations with news respecting the set international minimum standards of regulation (benchmarking). This system would allow emulation among various and different international regulatory regimes and eliminate competition to the *race to the bottom*, a phenomenon observed during the deregulation era that contributed to the 2007-08 financial crises.

**Seunghui Han**

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**The Effect of Weather on Voter Turnout:  
Evidence from Korean Elections**

**Marc Henry**

Professor, The Pennsylvania State University, USA

## **Single Market Nonparametric Identification of Multi-Attribute Hedonic Equilibrium Models**

This paper derives conditions under which preferences and technology are nonparametrically identified in hedonic equilibrium models, where products are differentiated along more than one dimension and agents are characterized by several dimensions of unobserved heterogeneity. With products differentiated along a quality index and agents characterized by scalar unobserved heterogeneity, single crossing conditions on preferences and technology provide identifying restrictions. We develop similar shape restrictions in the multi-attribute case and we provide identification results from the observation of a single market. We thereby extend identification results in Matzkin (2003) and Heckman, Matzkin, and Nesheim (2010) to accommodate multiple dimensions of unobserved heterogeneity.

**Isaiah Hull**

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## **The Macro-Financial Implications of House Price-Indexed Mortgage Contracts**

A standard, no-recourse mortgage contract does not adjust when the value of the underlying collateral falls. Consequently, shocks that lower house prices may trigger one of the necessary conditions for default: negative equity. A common alternative contract attempts to prevent default by imposing full-recourse. This may cause individuals who believe they are likely to default to rent; however, it does not prevent those who buy from experiencing negative equity. I consider a contract that instead precludes negative equity by tying outstanding debt to an index of house prices. This is done in an incomplete markets model that is calibrated to match U.S. micro and macro data. I find that switching to the house-price indexed contract reduces the default rate from .72% to .11% and expands homeownership rates among the young and the poor, but pushes up the equilibrium minimum mortgage rate by 90 basis points. The volatility of net cashflows to financial intermediaries also increases slightly under the new contract.

**Ioannis Kallianiotis**

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## **Fed and Target Rates and its Efficiency**

The paper discusses the latest economic crisis and the Fed's monetary policy used to mitigate the recession and improve the economic growth. The current target rate (monetary policy) is closed to zero since December 2008 with a new experimental policy ("quantitative easing") to stimulate investment, growth, and employment. This zero interest rate policy has reduced the deposit rate to zero and has affected negatively savings. It has eliminated the incentive to save and has made savings almost negative (dissaving or borrowing) and has contributed to this slow growth of output and persistent unemployment. This policy has increased the debt of individuals and the low taxes on businesses have magnified the budget deficits and the national debt. Thus, this target rate proved that it was inefficient. The deposits rate has to cover at least the official inflation rate and an interest rate ceiling on loans must protect the borrowers from the high loans rates, especially the credit cards outrageous rates. Government has to increase corporate taxes and reduce the national debt by lowering government expenditures (military expenditures and national defense), by curbing inefficiencies, and corruption; but increasing public investment (infrastructures). The public policies must be mixed policies (fiscal and monetary) to improve growth and employment first and then to reduce inflation and interest rates. The current one-sided monetary policy and the tax system need to be changed and become optimal, which are necessary to improve social welfare, fairness, equity, justice, and to benefit the neglected middle class (the 90% of the population) in our society. The middle class cannot work only to pay taxes and interest on its debt (redistribution of its wealth to government and banks), due to low disposable income, high unemployment, and unfavorable monetary policy. The disappearing of the middle class will affect negatively the entire socio-economic structure of the nation and will threaten its existence.

**Suleyman Karaman**

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&

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## **Exploratory Spatial Data Analysis of Dairy Cattle Sector in Turkey**

Increasing food prices and volatility for major agricultural products have recently raised concerns and posed risks for consumers and policy makers. However, as shown by many empirical studies, the transmission of these price changes are not being fully and immediately reflected along with the marketing chain. As underlined by von Cramon-Taubadel (1998), the general belief is that middlemen in the food marketing chain uses market power to pass on input price raises to consumers more rapidly and completely, than input price reductions. Price transmission in a supply chain can be described as "asymmetric" if the prices move in the different directions and the same direction but not at the same time (DairyCo, 2011). As stated by Meyer and von Cramon Taubadel (2002), since the flexible prices are required for efficient resource allocation in neo-classical economics, Asymmetric Price Transmission (APT) is of great importance.

The Turkish food industry as well as the livestock sector has experienced many structural changes in recent years. Increased consolidation together with the increase in food prices and volatility raised the common concern that wholesaler/retailers respond faster to increases in the producer prices of than to decreases in food sector. There were some complaints against the meat producers to Turkish Competition Authority (TCA) related to monopsony power abusing in 2010 (TCA, 2010).

The aim of this study is to investigate and compare the dynamics of price transmission and marketing margins on Turkish red meat markets. To our best knowledge, there has been no study examined the asymmetric price transmission for meat and meat products in Turkey. We apply the Gregory-Hansen (1996) cointegration technique, allowing for the presence of potential structural breaks in data, to empirically examine the long-run relationship as well as the short-run error correction mechanisms (ECM) between farm and retail prices of red meat.

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&

**Kim Seng Lim**

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## **The Infrastructure Development in the Republic of Guinea**

Empirical researchers indicate that the contribution of infrastructure to economic development is significant, especially in the area of long-run economic growth. Seeing the important of infrastructure to the strength of economic, infrastructure related topics have become topics of interest for both academicians and policy makers. Nevertheless, documented research on the infrastructure development and the spillover externalities of infrastructure development in West Africa, particularly in the Republic of Guinea, is rare. The objectives of this paper are two folds: 1) to explore the current infrastructure development in the Republic of Guinea; and, 2) to examine the spillover externalities of the infrastructure development. The statistical data of the infrastructure development in the Republic of Guinea is obtained based on the present situation according to the various official reports. The Cobb-Douglas production function is used to analyze the elasticity of the infrastructure capital stock output, infrastructure externality and the contributions of the infrastructure in long-run economic growth. The statistical results show that Guinea has underdeveloped inland transportation, particularly road transportation which is the country main transportation system. Additionally, fixed-line telecommunications and hydroelectricity infrastructure is seriously underdeveloped. Analysis of the Cobb-Douglas production function revealed that infrastructure has a positive spillover externality to both the standard of living and economic long-run growth in the Republic of Guinea. Specifically, transportation and urban infrastructure have significant effects in improving standard of living; and, the telecommunications has significant impact on the economic growth. In response to the lag of infrastructure construction, author suggests that the Republic of Guinea have to increase public capital investment. Furthermore, the Republic of Guinea has to invest wisely in infrastructure which is critically important as over investment can lead to project that are inefficiently large with low marginal return.



**Siqi Liu**

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&

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## **Construction of Multi-Level Capital Markets and Military Enterprise Technology Innovation**

The eighteenth congress of the Communist Party puts forward the goal of improving the independent innovation ability of military enterprise and upgrading military industrial structure. Currently there exist the problems of single investment and financing mode of military innovative enterprises and low using efficiency of national defense R&D funds, which severely restrict innovation ability of defense industry in China. The core functions of capital market are financing, and multi-level capital markets can meet the demand for money of innovation enterprises in their different stages of development. Obviously capital market and technology innovation have an inner natural link. This paper first carries on the literature review around the relationship between technological innovation of military industrial enterprises and the multi-level capital markets, then makes a mathematical analysis of the dynamic relationship between the capital growth rate and technology growth rate in the defense industry, using the new growth theoretical model. On the basis of conclusion of theoretical analysis, this paper puts emphasis on the analysis of impact path and mechanism of the multi-level capital markets on military enterprise technology innovation, and derives several policy implications about how the military innovation enterprises merge effectively with multi-level capital markets under the current situations in China.

**Pak Hung Mo**

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## **Prosperity or Stagnation: The Role of Government Expenditures**

We explain and quantify the effects of government expenditures on the changes in long-run price, capital and GDP levels across countries in a unified theoretical and empirical framework. The dependent variables are determined by the supply-side (SS) and demand-side (DS) fundamentals of the countries such as government expenditure structure and socio-political stability. The types of government expenditures include government size, government investment, transfers, education and national defense. The conclusions are supported by remarkable consistencies among empirical estimations and theoretical framework. We contribute to establish a unified system that allows us to inspect the effects of a variable on inflation, GDP growth and expansion of production capacity at the same time.

Our results suggest that SS variables have DS effects and vice-versa. SS factor is accompanied with immediate effects on GDP growth through their DS effect on private investment. Moreover, a DS variable can potentially generate long-term SS effect when it changes the related SS fundamental structure of an economy over time. In addition, the total effects of government expenditures are not homogenous in affecting inflation, investment and economic growth. These possible interactions between the SS and DS factors suggest that the AS-AD diagrams in economic textbooks require modifications in order to accommodate these new possibilities.

This research contributes to various literatures on related issues. Long-run inflation is commonly considered to be a pure monetary phenomenon. Our empirical findings suggest that the difference in long-run inflation rate across countries can be explained by the real factors like government expenditure structure and socio-political instability. Also, in the literatures related to determinants of inflation, investment and economic growth, they are normally investigated independently. To the best of our knowledge, this is the first unified theoretical and empirical model that can investigate and interpret the co-movements of the variables simultaneously. The cross verifications among the associated estimations provide a holistic understanding on the effects of the related variables to these major macro-economic variables. They enhance the usefulness of the empirical findings in directing government policies and raise the credibility of the findings and conclusions. Currently, the complicated interactions among the determinants of inflation have made persuasive conclusions hardly to be established by independent and piecemeal estimations. The

consistencies among the theoretical reasoning and empirical estimations in this unified framework suggest that the framework is useful to investigate other variables which have pervasive and sometimes conflicting effects on the macro-variables.

Lastly, relating to the literature on SS economics that largely concentrated on the DS and SS effects of tax rate reforms during the Great Inflation Period, our findings provide additional 'old SS' choices that have no potential negative effects on budget deficits and income inequality. For instance, the reallocation of government expenditures from government consumption to public investments can facilitate long-term growth by promoting price stability, stimulating investment and equalizing the distribution of wellbeing among income groups. Recently, ample suggestions on the SS policies are proposed to rectify the dilemmas associated with the monetary policies treating the financial tsunami. The suggestions, though normally sensible in theory but at the same time suffer from absence of empirical supports. Our unified framework may provide a persuasive analytical system to investigate empirically whether some suggestions can generate prosperity in the long-run, that is, promote investment, economic growth and price stability. The holistic investigations are impossible in the current state of art.

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## **A Microeconomic Analysis of the Springboard Subsidiary: The Case of Spanish Firms**

This article provides a microeconomic analysis of the distinctive characteristics of springboard subsidiaries that have a positive impact on the subsidiaries' performance. Based on panel data estimations for subsidiaries of European multinational companies with a presence in Spain, we found that if the subsidiary located in the springboard country is a springboard subsidiary, its performance increases by 3.6%. When the subsidiary has a technological relationship with another subsidiary, its performance increases by 1.9%. If the subsidiary that has the technological relationship is a springboard subsidiary located in a springboard country, this increases performance by 1.8%. Growth of 1% in absorption capacity increases a subsidiary's performance by 1.2%. Finally, low autonomy reduces the performance of a subsidiary by 34.4% compared to independent subsidiaries or those with a high degree of autonomy.

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&

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## **How does Development Aid Affect Productivity Growth in Recipient Countries?**

This study takes a closer look at the channels through which development aid impacts on the economy of recipient countries. It has been acknowledged that development aid does not always impact on macroeconomic key variables, such as private investment, domestic savings and the real exchange rate, in a positive or the hoped for way. Rather, development aid has started to raise fears that it might even lower recipient countries' efforts to give their best. As developing countries spend very little on research and development (R&D) and thus technological change contributes very little to total factor productivity (TFP), TFP in developing economies reflects mainly their level of efficiency. By using panel data of 27 recipient countries over a period of 25 years (1985-2009) this study aims at analyzing the impact of development aid on total factor productivity, controlling for institutional factors and factors that are related to the mix and the quality of labor and capital. As to the impact of aid on TFP, quantile regressions are run to check whether TFP in the lowest quantile is differently affected by aid than in the highest quantile. In addition, threshold regressions are performed to see whether aid is effective after a certain threshold (e.g. institutional quality, investment-to-GDP ratio, domestic savings-to-GDP ratio) has been reached.

**Titos Ritsatos**

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## **A Behavioural Explanation of Fiscal Trap, the Case of Greece**

Greece has been in the middle of an unprecedented economic crisis, due to the accumulation of non-serviceable public debt. The present paper, while building on the behavioral paradigm of the "*Slippery Slope Framework*" of Kirchler, Hoelzl and Wahl (2008), contributes to the sovereign debt crisis literature with a dynamic explanation of the recent economic phenomena, introducing a behavioral definition of the "*Fiscal Trap*". Fiscal Trap is the situation in which increase in taxation via introduction of new taxes and/or concurrent increase in existing tax rates fail to produce increased tax revenues. Greece's positioning within the "*Slippery Slope Framework*" was characterized by steady sliding towards the Fiscal Trap during the years following the restoration of Democracy in 1974. When the country entered the sovereign debt crisis in 2010, eroded public trust in authorities was based on decades of behavior based on corruption and favoritism toward specific private interests, resulting in inexistence of bureaucratic autonomy and lack of institutional depth pursuing the general public interest. Austerity measures taken aiming to curtail fiscal imbalances, failed for the first two years (2010-2012) to increase tax revenues and attain fiscal targets, primarily due to public's unwillingness to cooperate with authorities, verifying the country's positioning within the Fiscal Trap. As the "*Slippery Slope Framework*" states, persistent deviations from the "*optimum*" compliance levels of trust and power are dangerous enough to break the "*Psychological Contract*" of Feld and Frey (2006), forcing compliance to slide down the slippery slope towards minimum levels. In the case of a "*broken*" contract, compliance can be forced only by a powerful enforcement mechanism. It seems that building-up the enforcement mechanism was the winning strategy of authorities between 2012 and 2014, attaining fiscal targets and exiting the Fiscal Trap. Whether forced compliance will develop to become voluntary, depends on the long-term behavioral dynamics between authorities and citizens, building-up mutual trust, bureaucratic autonomy and appropriate institutional depth. Extensions of the model may well apply to any economy facing fiscal dilemmas.

**Beate Sauer**

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## **Central Bank Behavior Concerning the Level of Bitcoin Regulation as Policy Variable**

The Bitcoin gains more and more attention in the general public and already became the most popular crypto-currency with a market capitalization of 4.4 billion USD in October 2014. At the same time, the acceptance of Bitcoin as a currency and simultaneously as a payment vehicle increases, especially as more and more major companies decide to accept Bitcoin payments. This means, we may now be on the way to a parallel currency system. Therefore, one could state that the Bitcoin network and the central banking system are two systems that are or will become rivals with respect to issuing a payment vehicle and with respect to providing a cross-border payment system. This would imply that central banks are not interested in a further development of the Bitcoin network and similar systems of other crypto-currencies.

Our aim is to show this central bank incentive in a network model that includes hacking. The case of hacking is a very important topic in the context of Bitcoin. Not only private Bitcoin wallets are at risk of being hacked and, partially, were already hacked, various Bitcoin exchanges were already hacked, too. With our model we are able to explain central bank behavior concerning the level of Bitcoin regulation as policy variable: The central banks have no incentive to advance Bitcoin regulation because this would reduce the critical mass of users for the Bitcoin network. In combination with a central bank loss function we are even able to calculate an optimal level of regulation for the central banks.

As the European Central Banks is newly involved in banking supervision and other central banks are as well, thus it seems appropriate to treat this variable as central banks' policy instrument.

**Norman Sedgley**  
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## **Microeconomic Shocks and Corporate R&D**

This paper investigates the impact of output and credit market shocks on R&D spending in advanced economies and builds on the commonly accepted view that credit constraints lead to procyclical R&D spending. A theoretical model is developed where output and credit shocks are treated separately, though these shocks may be highly correlated. The estimation procedure utilizes a panel vector autoregression (VAR) in order to empirically identify the role of credit market shocks separately from the output shocks more commonly studied in the existing literature. The primary empirical findings can be summarized as follows: (1) R&D responds pro-cyclically to output shocks at the macroeconomic level, and (2) R&D co-moves positively with credit. More concretely, the results indicate that negative output shocks induce a simultaneous and subsequent contraction in credit and R&D consistent with a model where credit constraints drive cyclical adjustments to R&D. The impact of output and credit shocks on R&D are economically significant and a simulation exercise suggests the shocks associated with the global financial crisis have permanently reduced US R&D by 12% relative to the pre-crisis path. (JEL classification codes: C32, E32, E44)



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## **Environmental Agreement and Coalitional Games: An Optimal Mechanism of a Public Good Provision**

### Introduction

In a differential information economy the free coalition formation may imply some theoretical difficulties. It does not suffice to say that a coalition can be formed by several agents. The restriction of coalition formation is inflated by incomplete information. In a finite economy with  $N$  as the set of agents, it may happen that an agent will only know the preferences and endowments of a subset  $K \subseteq N$  of people and can decide to form coalitions joint with agents from this group. Consequently, there is an upper maximum to the size of possible coalitions in the economy. Moreover, the formation of coalition may imply some theoretical difficulties, such as costs arising from forming a coalition or sharing information among agents. Indeed, incompatibilities among different agents may arise and a big amount of information and communication might be needed to form a coalition.

There are some consequences of placing an upper limit on the set of possible coalitions. Intuitively the core will be larger. We call a core with an upper maximum a restricted core. The first study on this direction were made by Schmeidler, Vind and Grodal 1972.

We must take into account all limits imposed by the society to the aggregation in coalition. It is very simple to thing that agents are not free to form any coalition, especially in our framework. Indeed, it is usually argued that the costs, which arise from forming a coalition, are not all negligible. Moreover, traders will form a coalition only if they know one to each other. Incompatibilities among different agents may arise and a big amount of information and communication might be needed to form a coalition. Thus, it will be not enough to say merely that several agents form a coalition.

Considering a public goods economy with differential information, coalitions can produce public goods allocations if they are physically feasible and informationally feasible. The former is the standard requirement that the coalition, in each state of the world, does not use resources in excess to what it is owned by its members. The latter constraints the allocation to be consistent with the amount of information present in each coalition, possibly taking into account

communication among its members. The recent literature on differential information economies with many agents has extended the traditional notion of the core to embody constraints on information. As a result, concepts like private, weak and fine core have been introduced and successfully applied to extend classical results, such as non emptiness and core equivalence, to the differential information environment. Actually the Kyoto Protocol represents a legal agreement with the aim to reduce the greenhouses gases emissions. The agreement is founded on the principle of common but differentiated responsibilities. Essentially it establishes that the developed countries have the obligation to reduce current emissions on the basis that they are the main responsible for the current levels of greenhouse gases in the atmosphere. The agreement is founded on three fundamental mechanism. One is the Clean Development Mechanism, following this mechanism the developed countries can invest in emission reducing projects in developing countries as an alternative to what is generally considered more costly emission reductions in their own countries. Another mechanism is the Joint Implementation allows countries to claim credit for emission reductions that arise from investment in other industrialized countries, which result in a transfer of equivalent? emission reduction units? between the countries. The third mechanism is the Emission Trading allows the trading of emission quotas among industrialized countries. Unfortunately all these mechanisms are not perfect and actually 190 countries representing over 61.6% of the 1990 emissions have ratified the Kyoto agreement. Thus it can be useful to think about some others mechanisms able to enforce the behaviors of the countries related to reduce the greenhouses gases emissions.

#### The Model

We are considering the coalition formation process in an N-country world, the possibility that sub-groups of players may form strategic alliances has been neglected. On theoretical grounds, one would like to explain an entire coalition formation process endogenously. For instance, there may be not only a group of signatories and non-signatories, but several coalitions may coexist. On the one hand, signatories may split up into sub-groups with homogeneous interests since within the group of environmentally conscious countries no agreement on abatement obligations may be possible. On the other hand, there is a possibility that less environmentally concerned countries could form a coalition to defend their interests.

Starting form Aumann and al [1] model, we consider a public goods economy, defined by a set of agent N-country world, a collection of environmental public goods, a collection of non-consumable resources, and a technology for producing public goods and an initial endowment of resources. Private consumption goods are totally absent from this model. We introduce a coalition mechanism for wich agent can

aggregate into coalitions and reach core allocations. We introduce asymmetric informations between agents as a partition of all possible states of the world.

In particular, we consider a public goods economy under asymmetric information, which consists of:

- i) A measure space  $(N;S;m)$ , where  $N$  is the set of all traders,  $S$  is a  $\sigma$ -field of all coalitions, and  $m$  is the Lebesgue measure;
- ii) The exogenous uncertainty is modelled by a measurable space  $(W;F)$ , where  $W$  denotes a finite set of states of nature and the field  $F$  represents the set of all events.
- iii) There is a finite number of different kind of resources,  $l$ , in each state and  $m$  number of different kinds of public goods (environmental goods);
- iv) The information of traders  $t \in N$  is described by a measurable partition  $P_t$  of  $W$ . We denote by  $F_t$  the field generated by  $P_t$ . If  $w_0$  is the true state of nature, trader  $t$  observes the member of  $P_t$  which contains  $w_0$ . Every trader  $t \in N$  has a probability measure  $q_t$  on  $F$  which represents his prior beliefs: i.e. probability conditioned by their information set;
- v) The production correspondence  $G$  is defined from  $\mathbb{R}^l_+$  to  $\mathbb{R}^m_+$
- v) The preferences of a trader  $t \in N$  are represented by a state dependent utility function,  $u_t : \mathbb{R}^m_+ \rightarrow \mathbb{R}$  such that  $u_t(\cdot;w)$  is continuous, concave and strictly monotone a.e. in  $N$ . Moreover, each trader  $t \in N$  has a fixed initial endowment  $e : T \rightarrow \mathbb{R}^l_+$ , such that,  $e(\cdot;w)$  is assumed to be  $m$ -integrable in each state  $w \in W$  while  $e(t; \cdot)$  is  $F_t$ -measurable, i.e. constant on each element of  $P_t$ . The interpretation of this condition is that traders do not acquire any new information from their initial endowment.

Throughout the paper, we shall assume that  $e(t;w) \geq 0$ , and, for any function  $x_t : \mathbb{R}^m_+ \rightarrow \mathbb{R}$ , we will denote by  $h_t(x) = \int_{w \in W} q_t(w) u_t(w; x(w))$  the ex-ante expected utility from  $x$  of trader  $t$ . Moreover,  $G$  has compact and nonempty values and a public goods bundle is called jointly producible if it is in  $G(e(N))$ , i.e. can be produced by all the society.

We consider a general solution concept: the stable sets. In this paper we do not refer directly to the von Neumann and Morgenstern (1944), but to a generalized solution concept, the standard of behavior, which arises in social situations [9]. In particular, we show that the core of a public goods economy  $E$  with both asymmetric information and uncertainty, where we define a general coalition structure, is stable internally and externally. We use a property of the NTU induced by that economy  $E$ : the notion of extendability. This notion is tied with the equilibrium concept (core) in sub-game: a game is extendable if every core allocation of each sub-game can be extended to a core allocation of the game. Our main result starting from extendability of the games,

shows that the core allocations in a general coalition structure is stable in the sense of [9].

However, because information is incomplete and asymmetric for any coalition structure there is a mechanism that simultaneously allow to extract information and to allocate resources. In such way, the information that is available to coalitions reflect different conjectures of outsiders to the coalition.

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## **Structuring Economic System Resource as a Tool for Risk Management**

Article is devoted to the concept of structuring space economic risk factors based on view of economic processes as the transformation processes of economic systems. To improve the quality of managing a socioeconomic system one must react efficiently to external and internal impacts and detect changes within relevant economic risk factors in due time. The G. Kleiner's theory of economic systems provides adequate tools for that. The approach to the economic systems interaction modeling is based on the system paradigm, proposed by J. Kornai specifically for economic system, and further generalized and developed by academician G. Kleiner from Central Economics and Mathematics Institute of Russian Academy of Science. According to G. Kleiner's concept, the set of economic systems includes 4 types of systems: objective, environmental, project and process systems. Let's consider the object one.

Taking into account the time-space index, one can single out subsystems of the same four types within the economic system concerned. The subsystem of the object type shall be a business or a group of businesses comprising the socioeconomic system concerned. Project type subsystems realized at this particular period of time by the subsystems of object type and their structural elements shall also be part of the system. Both subsystems realize certain internal value transfer processes within the initial system and in interaction with external economic systems, which results in various and evolutionary changes in their condition. Finally, environmental subsystem type can be mentioned. It deals with active legislation at working places or places where end products are sold, service is provided and other economic activity is implemented.

The process of identification and classification of risk factors and selection anti-risk controlling action is considered to each subsystems. Three directions of system economics application for fulfillment of the strategic tasks have been defined.

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## **Striking the Right Balance: Balancing Power and Environmental Improvements in Swedish Hydropower**

Electricity production from wind power and other intermittent renewable energy sources is expanding, increasing the need for balancing electricity sources that can change production at short notice to balance the variation in intermittent electricity production. At the same time, the main sources of balancing power such as hydropower and nuclear power are also becoming increasingly heavily regulated, reducing their capacity to provide balancing power. This study examines how the value of hydropower as a source of balancing electricity in the Nordic electricity system can be expected to change with the increased share of intermittent electricity in the system (especially wind power) and with the envisaged changes in hydropower proposed by the recent water use commission and national water priority plan in Sweden.

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## **Political Economy, Development and Human Rights, in the Framework of the Free Trade Agreement between Colombia, Peru and European Union**

The Trade Agreement between the European Union and its Members States, on the one hand, and Colombia and Peru, on the other hand, is part of a long lasting relationship between the EU and the Andean Community (European Comision, 2010). In terms of scope and ambition the Agreement is in line with the European Union's FTA policy as articulated in the "Global Europe" trade policy strategy of 2006 and affirmed in the "Trade, Growth and World Affairs" statement of 2010. It is also in line with the Colombian trade policy of opening markets and further internationalization of its economy. Mutually beneficial for many reasons, the agreement aims to formalize the existing commercial relationship between the three parties (Council of Hemispheric Affairs, 2013), generate new job opportunities, encourage investment in the markets concerned and uphold international standards on environmental protection and human and workers' rights (Proexport, 2012). This research is based on Methodology for Impact Assessment of Free Trade Agreements, of Plummer, Cheong, & Hamanaka, (2010), initially introduces the theoretical framework for the economic analysis of an FTA, providing a concise guide for policy makers on the economic theory underlying FTAs as a basis for understanding the methods for ex-ante and ex-post assessment of FTAs. The research is supported in partial equilibrium models, especially the Viner model, and general equilibrium models. The Project also provides a modeling framework, the GTAP model ((Hertel, 1997) and (Schuschny, A; Durán, J; De Miguel, 2007)), to conduct CGE static analysis of multi-region and economy-wide scenarios.

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## **Industrial Clustering, Growth and Inequality in China**

Three decades of reforms have transformed China from one of the poorest countries into a major world power. One of the most striking developments during the reforms is the emergence of industrial clusters that hundreds of specialized small towns become “world factories” with each contributing a substantial share of the product that they produce to the world (or national) market. Nevertheless, although well reported in the media and well known in the business world, careful research on the impacts of this striking development to growth is yet to be done. On the other hand, since the reforms, income inequality in China has increased so rapidly that China has become one of the most unequal economies in the world and it threatens China’s stability and sustainability. However, the impacts of industrial clusters to inequality are unknown in the literature.

This paper addresses the aforementioned questions simultaneously. Based on a combination of firm-level and county-level panel datasets from 1998 to 2007, we find that clustering increases regional disparity in terms of economic and employment growth in China, even after we control the initial economic development level in general. In particular, counties, which have stronger clusters and clusters consisting of more private businesses, experience higher economic growth and more job creation than the others. More importantly, the higher growth of the counties with clusters does not lead to enlarged income inequality. In particular, counties with clusters consisting of a more developed private sector have significantly lower urban-rural inequality. We further find the reduction of the urban-rural income inequality is mainly driven by the increased income of rural residents. Identification concerns are addressed by two-stage estimations and the propensity score matching approach.