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Book of abstracts

Keynote session

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Income inequality, growth and space: some empirical evidence

The relationship between income inequality and economic growth has received growing attention over the past decades. Empirical studies have been focused on the effects of growth on income distribution as well as on the impact of income inequality on growth processes. In both these cases, the empirical evidence gave rise to conflicting results, making the relationship between growth and inequality far to being well understood.

Additional issues concern the spatial dimensions of growth and inequality, which only recently begun to attract attention in the literature. Different spatial econometric specifications have been proposed for the analysis of regional growth processes (Rey and Montouri 1999, LeSage and Fischer 2008, Fischer, 2011), while the spatial dimension of income inequality has been the subject of a separate literature, mainly focused on the geographical decomposition of some inequality measures (Fan and Casetti 1994, Azzoni 2001). Calls for integration come from few recent contributions (Rey and Janikas 2005, Janikas and Rey 2008), while the relationship between growth and income inequality at the sub-national level still remains largely unexplored.

This paper investigates the impact of income inequality on economic growth at local level, taking into account the spatial dependence effect. We consider a conditional β -convergence model, in which income inequality is included in the set of conditioning variables. The spatial dependence effect is incorporated in the model by assuming a simultaneous autoregressive specification, and an empirical analysis focused on Italian provinces is presented and discussed.

Regional development and public infrastructures

The role of infrastructures as a driver for regional growth has been analyzed in the literature with mixed results. As omitted variables are a source of distorted results, the analysis must be based on an augmented Solow model including human capital and R&D expenditures. In the line of the study conducted for the Italian regions by Bronzini and Piselli (Regional Science and Urban Economics, 39, 2009), this paper estimates the long-run relationship between productivity, human capital, R&D and public infrastructures in Spain.

Drawing on a longitudinal database for Spanish Nuts 2 regions (1990-2008), this paper estimates (with a fixed-effects model of panel data) a production function with human capital, public infrastructure and R&D expenditures. The moderating effect of the relative endowments of regional capital stocks in transport infrastructures is estimated by means of a saturation index capturing regional infrastructural gaps.

Development and structural change for the Spanish regions

The evolution of the Spanish regions' GDP in 2012 was characterised by a widespread recession. The regional distribution of the real growth rate of the Spanish economy was estimated at -1.4% for 2012. In line with the deep and widespread recession of 2012, employment problems were exacerbated all across Spanish regions and the unemployment rate rose to 26.02% in the whole country. The most significant feature of the economic development in the Spanish regions in 2012 is the deep and widespread recession of GDP and the rise in unemployment rates.

The evidence of the impact of the crisis on regional differences is unclear. On the one hand, the coefficient of variation in the GDP per capita of the Spanish regions has shown a certain upward trend, from 18.6% in 2008 to 19.8% in 2012 (with the estimated data from the National Statistics Institute). However, the most outstanding feature is the general downturn in all of the regions and in the average from the country (from 23.8 thousand euros to 22.7 between both dates, minus 4.6%). This said, the worst effect of the crisis has been the increase in job losses, with the unemployment rate soaring from 8.6% in 2007 to 26% in 2012 (in the last quarter), rising to more than 30% in Andalusia, the Canary Islands and Extremadura. However, the overall increase in all of the regions meant that the coefficient of variation in the unemployment rates fell from 34.6% to 31.3% during this period.

The recession had a profound impact on the Spanish labour market (an average unemployment rate of 21.7%). The more technologically advanced regions (Competitiveness regions, such as the Basque Country, Navarra, Madrid and Catalonia) found it easier to deal with the crisis, while some of the convergence, Phasing-out and Phasing-in regions were facing serious problems with unemployment and economic stagnation. Therefore, this analysis concludes that, beyond these broad features, it is hard to find a general and systematic pattern for the development of the Spanish regions.

Fiscal regimes in Spain: a Markov-Switching approach

The financial and economic crisis has brought back the spotlight to the PIIGS nations. Although Spain belongs to this group, its impressive fiscal efforts made so far have been recognized by investors and economists alike and have begun to bear fruit. In this context, it would be interesting to characterize the behavior of Spanish fiscal policymakers. For this purpose, we estimate fiscal policy rules within a Markov-Switching framework and compare the results obtained for Spain with those computed for the Euro area as an aggregate, using two new quarterly datasets of public finance variables of Spain (De Castro et al., 2014) and the Euro area (Paredes et al., 2014) for the period 1986-2012. Our results distinguish between two different regimes in terms of their relationship to the cycle: in regime 1 fiscal policy would be acyclical, whereas in regime 2 would be countercyclical. Both regimes would be passive (debt-stabilizing), although more intensely in the first regime.

Unveiling the observational equivalence of the NEG

In spite of the apparent empirical success of the New Economic Geography (NEG) wage equation, some authors have asserted its observational equivalence, i.e., the consistency of those results with alternative frameworks, such as Urban Economics theories. However, few efforts have been made to empirically test this equivalence. One reason could stem from the lack of commonly accepted approach for that. This paper proposes a procedure to show that many empirical wage equations are actually proxying an underlying production function augmented with locational information about the economic scale of the nearest neighbor(-s). Cross-sectional European regional data and a Harris's measure of Market Potential are used to analyze the robustness of the estimation of a wage-type equation when the key variables of the model are defined in ways different from those commonly considered in the NEG empirical literature. Among these tests, it is shown that the results of a wage-type equation are similar in spite of using one or a few neighbors to create the "Market Potential" variable. The empirical findings of the modified wage equations are similar to those of a standard NEG equation, which is the essence of the observational equivalence of NEG theory.

**Where are the elders going?
Analysis of the location decisions of older population at a local level in Spain**

People's location and migration decisions are usually studied from a labour market perspective, focusing on the movements of the active labour force. Recently, the focus is shifting towards the older and retired part of the population. Aging and retiring from labour certainly has an impact in people's lives and in the regions and countries' economies. All countries in Europe are aging, but they do at different rhythms and intensities. Spain is a prominent case within Europe. However, within Spain we can observe a strong geographical heterogeneity; certain regions are aging more than others, and even more, within those regions some areas (municipalities) are aging while others are losing aged population. The aim of this paper is to identify what makes an area attractive or repulsive for the aged population. Working at local level we intend to understand why some people decide to stay or move from the place they lived until retiring or move out. Beside the rural-urban nature of an area or its economic dynamism, other factors have to be considered, such as natural and social amenities, which might have a major influence on the location choice. Spain poses an appealing case for the matter if we take into consideration the confluence of two circumstances: the well-known appeal of the country for retirees from northern European countries, and the internal aging growth of a cohort that lived first-hand the Spanish rural exodus. In order to capture the spatial heterogeneity, we use a Geographical Weighted Regression approach to identify those municipal characteristics affecting the location scheme of our retirees, both national and foreign population.

Sovereign Wealth Funds in the global market

The general purposes of the work are: (1) to define the sovereign wealth fund as a state investment fund, which is formed by the above plan of budget revenues from the export of non-renewable natural resources, non-primary budget surplus of the foreign exchange reserves and/or other revenues, managed and used in order to ensure the stability of the national economy at a certain time horizon; (2) to clarify the essence of the concept, management structure and characteristic of SWFs for determining exactly the specifics of a sovereign wealth fund and generate its investment strategy; (3) to determine the general procedure for the formation of the investment strategy SWFs and approaches to its implementation. The presentation involves a brief discussion of the relation between the most essential governance requirements, the impact of SWFs on economic development and to analyze the governance arrangements of the SWFs and to compare with the best practices in management of natural resource funds.

Fátima Fernández Fernández

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The effects of ENP on Maghreb sub-regional integration

Welfare effects of economic integration have been widely discussed from an inward perspective, while less attention is paid to its consequences for neighbouring countries remaining outside. This research, which assesses the influence of European integration on the Mediterranean regional structure, shows that European Neighbourhood Policy has failed to fulfill its aim to promote sub-regional integration among Maghreb countries. In order to check whether the ENP (2004) has been relevant for this objective, four indicators proposed by the EU for measuring its success are tested, as well as the evolution of Maghreb economic relationship with its main European partners (France, Germany, Italy and Spain) since the Barcelona Process (1995). Following a hybrid approach that combines descriptive institutional analysis and statistical work (with data from UNCTAD and IMF databases), this research reveals that none of the objectives —performing FTAs involving Southern Mediterranean countries, wider intraregional integration and strengthened inward FDI flows— has been reached and that Maghreb trade path obeys to international trends rather than to the entry into force of the ENP framework. Indeed, instead of boosting welfare through South-South integration, the ENP fosters a *hub&spokes* structure that widens horizontal and vertical asymmetries. The divergence between declared objectives and achieved results calls for a revision of the European strategy concerning external relations.

Ana Martínez Pardo

University of A Coruña

GOAPORT. Discrete choice models applied to port choice

The more intensive use of containers for channeling the flows of international trade has led to the ports become nodes of the main supply chains. As a result, there is a strong competition among port alternatives to attract routes to their facilities in order to gain the greater share of maritime traffic. The need to identify the variables responsible for the success of a port over its competitors has led to the birth of a line of research to develop a tool for port planning. This tool, called GOAPORT, is being developed in the framework of discrete choices models, which allows us to identify these variables and forecasting market shares in different situations from current one. The study area encompasses Spanish exports in container through the 4 main container ports of Spain. Our model can explain and predict the port choice by knowing characteristics of each individual trade and the port alternatives.

Facundo Quiroga Martínez

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Returns to education in Argentina: a regional analysis

In this paper we use micro-level data to estimate the returns to education by region in Argentina and analyse the regional differences on wages to identify which part is being explained by the endowment of human capital and which part is being explained by differences in returns to this human capital. More specifically, we quantify regional differentials in the returns to education by estimating Mincerian equations with 2SLS regression, and decompose the wage gaps by applying an Oaxaca-Blinder decomposition. The results show an important heterogeneity both in endowments of human capital and in the returns to education across regions in Argentina.

**The economic impact of the artisanal fishing industry:
an application of input-output analysis for the case of Asturias (Spain)**

Artisanal fisheries are defined as small scale fishing companies, normally owned by fishermen, developing their activity in the coastal area within a few hours from the ports where the fishers are based. At a European level it is widely accepted that artisanal vessels represent around 75–80% of the boats making up the European fishing fleet, and they are generally thought to constitute an important source of employment and income for many South European coastal communities as Asturias (northern Spain). However, there is little empirical quantification of the economic impact of this activity, due to the lack of detailed information on its output, intermediate consumptions or the primary inputs it uses. This paper aims at quantifying the impact of artisanal fisheries in the region of Asturias by means of standard IO analysis. Taking as point of departure the symmetric IO table compiled by the regional statistical agency (SADEI) for 2010, and combining it with a recent survey conducted among the artisanal fisheries in the region, we disaggregate the IO information regarding the fishing industry distinguishing between artisanal and industrial fisheries. The new IO table that differentiates the artisanal fishing industry from other types of fishing allows for estimating the impact of these fisheries in terms of output, income and employment in the region.

Senior presentations

Esteban Fernández Vázquez

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Estimating multiplier matrices by entropy econometrics

As Miller and Blair pointed out in the second edition of the handbook *Input-output Analysis* (2009, p. 243): “one of the major uses of the information in an input-output model is to assess the effect on an economy of changes in elements that are exogenous to the model of that economy”, i.e., some type of multiplier. Input-output modelling requires up-to-date tables in order to obtain accurate multipliers estimates, but constructing input-output tables based on surveys is expensive and time consuming. Several non-survey techniques have been developed in order to estimate input-output tables, both in a national or a regional context. The traditional strategy is to depart from an initial table of transactions (or coefficients) that is adjusted until it is consistent with known row and column sums of the target matrix. Once the target matrix is estimated, it is conveniently transformed in order to obtain the matrix with the multipliers. In this paper a different approach is proposed. In line with a previous proposal by Toh (1998), we suggest departing from an initial matrix of multipliers, which will be directly adjusted to be consistent with the observed information on the actual period. Instead of row or column sums, the data required are the vectors with the final demands and the total uses (or total outputs, depending on the case). The estimation technique proposed is based on Entropy Econometrics and its performance is tested by means of numerical simulations.

Roberto Bande Ramudo

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**Cohesion and monetary policies in the EU: two counteracting forces?
Evidence from the Spanish Experience**

The paper aims to shed light on the reasons explaining that in spite of huge efforts by European cohesion policies (mainly through structural funds), the gap between rich and poor regions has not been bridged. The impact of structural funds on regional economies is largely reflected in an increased capital stock (mainly public capital stock). But not every region within a country is equally affected by an increase in the capital stock. For the Spanish case, previous works of the authors show that low unemployment regions (which correspond to the more developed areas of the Spanish economy, the non-objective 1 regions) have been benefited to a greater extent than high unemployment regions (objective 1) from capital accumulation (Bande and Karanassou, 2014). Therefore it is reasonable to argue that some counteracting forces may be in place to structural funding, such that they preclude full income or employment convergence. This paper argues that a common monetary policy may be that counteracting force. In this paper we have estimated a dynamic multiequation model, comprising a production function, a labour demand function and an investment function. After estimating the model for groups of Spanish regions (high and low unemployment regions), we simulated the effect of different scenarios on both cohesion and monetary policies and assess their effect on regional economic performance. Our preliminary results suggest that these policies need to be coordinated in order to achieve full income or employment convergence.



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