## SATURDAY, May 27, 14:00 - 15:30

## **DS E1. Macroeconomics 5.** Room: Pere i Joan Coromines (IEC)

# ECONOMIC AND STATISTICAL MEASUREMENT OF PHYSICAL CAPITAL WITH AN APPLICATION TO THE SPANISH ECONOMY

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#### **Abstract**

Most empirical studies in macroeconomics and the economic growth literature depend on the measure of capital stock. The variables that help to explain the main phenomena and issues in these areas of economics always appear to be related, whether directly or indirectly, to capital stock and depreciation. The standard measurements of capital and depreciation are statistical in nature and are based on assumptions about the average service life of equipment and accumulation as set out in the perpetual inventory method. In this paper, we present an alternative method based on the equations that solve the dynamic optimization problem of the neoclassical Firm. This method enables us to endogenously calculate the rate of depreciation and capital stock variables, yielding an economic estimate based on profitability indicators such as distributed profits and Tobin's q ratio.

This change of paradigm in measuring capital and depreciation is presented along with an application to the Spanish economy for the period 1964-2011. The new results indicate an economic depreciation rate (endogenous) that fluctuates around the statistical rate (exogenous), and two time profiles for the economic and statistical capital that are markedly different, as attested to by the disparity of their growth rates. The paper also undertakes a review of the main macroeconomic indicators that describe the growth of the Spanish economy over the past 50 years: capital intensity, capital productivity and total factor productivity. When studying the different phases of Spanish growth, we can identify a number of subperiods, the characterization of which with the new data we can only explain by providing a novel interpretation of the facts.

Keywords: Capital, Depreciation, Growth, Slowdown, TFP.

JEL Classification: C61, D92, E22, O47.

### SOVEREIGN DEBT AND STRUCTURAL REFORMS

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Kjetil Storesletten

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Department of Economics, University of Zurich

#### Abstract

We construct a dynamic theory of sovereign debt and structural reforms with three interacting frictions: limited enforcement, limited commitment, and incomplete markets. A sovereign country in recession issues debt to smooth consumption and makes reforms to speed up recovery. The sovereign can renege on debt by suffering a stochastic cost, in which case debt is renegotiated. The competitive Markov equilibrium features large fluctuations in consumption and reform effort. We contrast the equilibrium with an optimal contract with one-sided commitment. A calibrated model can match several salient facts about debt crises. We quantify the welfare effect of relaxing different frictions.

Keywords: Austerity, Commitment, Debt Overhang, Default, European Debt Crisis, Markov Equilibrium, Moral Hazard, Renegotiation, Risk Premia, Risk Sharing, Sovereign Debt, Structural Reforms.

JEL Classifications: E62, F33, F34, F53, H12, H63.

## SELF-FINANCING EDUCATION, BORROWING CONSTRAINTS, GOVERNMENT POLICIES, AND ECONOMIC GROWTH

Hoang D. Duong

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Fernando Sánchez-Losada

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#### Abstract

We analyze how public policies for self-financing education, public fund for loans and deferred deductibility of education expenses, affect growth in an overlapping generations economy where individuals can be borrowing-constrained on human capital investment. We show that public loans positively affect growth in the unconstrained economy, while how tax deductibility affects growth depends on the magnitude of both public loans and tax deductibility. In the borrowing constrained economy, public loans positively affect growth, while tax deductibility does not affect growth. Both government policies affect the borrowing-constraint tightness and, therefore, can shift the economy from being borrowing-constrained to unconstrained or vice versa.

Keywords: Self-Financing Education, Government Policies, Growth.

JEL Classification: O40, H20, I22.

## THE WELFARE COST OF BUSINESS CYCLES IN DEVELOPING COUNTRIES: DO CURRENCY UNIONS MATTER?

Ibrahima Sory Kaba UNU-MERIT

## Abstract

Adverse macroeconomic shocks have long been acknowledged to be larger and more costly in developing countries, compared to the rest of the world. Yet, while most of the literature continues to hold a mono- lithic approach to development macroeconomics, it still remains an open question how differently the fluctuations are absorbed by developing countries with different monetary institutional arrangements. Taking stock of the recent developments in the Optimum Currency Area debate and using several parametric and non-parametric models, I show that the welfare cost of business cycles is between 11 and 48 percent higher for the sub-Saharan African countries outside the CFA Franc Zone than for those inside the union. This is a particularly important finding, at a time when the political temptations for some member states to leave the union might trump its economic benefits.

Keywords: Business Cycles, Optimum Currency Area, Welfare, Growth.

JEL Classification: C14, C22, E32, E42.

## HIGHER PAY, WORSE OUTCOMES? THE IMPACT OF MAYORAL WAGES ON LOCAL GOVERNMENT QUALITY IN PERU

Ricardo Pique

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#### Abstract

In this paper, I study how wages earned by local politicians affect local government quality. I construct a novel data set on Peruvian municipalities which includes individual level data on the characteristics of local authorities, candidates and top bureaucrats, as well as detailed information on local government performance, bureaucratic structures and local politics. To identify the effects, I use caps imposed by the Peruvian central government on the wages earned by local mayors as an excluded instrument. The results indicate that mayoral wages do not improve local government quality. I find evidence of a robust, negative impact on public investment performance. Moreover, I find no evidence of a positive effect on politician and bureaucrat selection and on political effort. I consider multiple explanations for the performance result and conclude that this can be attributed, in part, to greater political opposition and fragmentation. Wages strongly affect the local political landscape, reducing the winner's vote share and increasing vote splitting. These latter factors are shown to be detrimental for local government performance.

JEL Classification: O12, D72, D78, H72.

## THE MACROECONOMIC CONSEQUENCES OF REMITTANCES

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Özyeğin University, Çekmeköy Campüs
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Department of Economics, University of Georgia
Thomas Lebesmuehlbacher
Department of Economics, University of Georgia

#### Abstract

This paper examines two important channels which influence the dynamic absorption of remittances at the macroeconomic level: (i) the presence of borrowing constraints, and (ii) the distribution of remittances across recipient households. Using an open economy DSGE model with heterogeneous households, we show that remittances accruing to hand-to-mouth households (with no capital ownership or access to credit markets) generate a dynamic response that is inherently contractionary for the recipient economy. On the other hand, credit-constrained households with ownership of capital respond in a way that is inherently expansionary, when they are the principal recipients. The ability of countercyclical remittances to smooth business cycle shocks also depends critically on their distribution across households. We use data for Philippines to calibrate the internal distribution of remittances, and show that this calibrated distribution and the presence of binding credit constraints play an important role in improving the model's fit to the data. The welfare consequences of the distribution of remittances are also analyzed.

Keywords: Remittances, Credit Constraints, Labor Supply, Output, Investment,

Consumption, Welfare.

JEL Classification: F24, F41, O11

# BOOM GOES THE PRICE: GIANT RESOURCE DISCOVERIES AND REAL EXCHANGE RATE APPRECIATION

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Radoslaw Stefanski

School of Economics and Finance, University of St Andrews

Gerhard Toews

Department of Economics, University of Oxford

#### Abstract

We estimate the effect of giant oil and gas discoveries on bilateral real exchange rates. The size and plausibly exogenous timing of such discoveries make them ideal for identifying the effects of an anticipated resource boom on prices. We find that a giant discovery with the value of a country's GDP appreciates the real exchange rate by 14% within 10 years following the discovery. The appreciation is driven by the prices of non-tradable goods. We demonstrate that these empirical results are qualitatively and quantitatively consistent with a calibrated model based on the "traditional" theory of exchange rates.

Keywords: Exchange rates, Natural resource discoveries, Dutch disease, Oil.

JEL Classification: F31, F41, Q33.

## NATURAL RESOURCES AND EXPORT CONCENTRATION: ON THE MOST LIKELY CASUALTIES OF DUTCH DISEASE

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#### Abstract

The literature on Dutch disease is extensive when it comes to documenting the negative impacts of natural resource exports on non-resource tradable goods as an aggregate. Little has been said on the impact of natural resources on non-resource export concentration, either from a broad perspective or at the product level. We explore this relationship using a variety of non-resource export concentration indexes for the period 1985-2010. We find significant evidence indicating that countries with high share of natural resources in exports tend to have less diversified non-resource export baskets. Furthermore, using highly disaggregated data at the product level we study what type of products are more likely to thrive or suffer in resource rich countries. We find that capital intensive goods tend to have larger shares on the non-resource export basket when natural resources are high. We also find that homogeneous goods make for a larger share of the non-resource export basket the lower their technological sophistication. For differentiated goods the pattern is reversed: they tend to make for a larger share of the non-resource export basket, the higher they are in the technology scale.

Keywords: Export Diversification, Dutch Disease, Homogeneous Products, Heterogeneous Products, Skill Intensity, Capital Intensity.

JEL Classification: F14, F43, O11, O13, Q33.

## GAINS FROM TRADE WITH HETEROGENEOUS INCOME AND PRICE ELASTICITIES

Danial Lashkari
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Martí Mestieri
Northwestern Univeristy.

### **Abstract**

Micro-level studies robustly document heterogeneity in price and in-come elasticity of goods produced by different industries or firms. However, this heterogeneity is absent from most theories of aggregate and macro-level phenomena. In this paper, we provide a flexible yet tractable general-equilibrium framework for the study of heterogeneity in price and income elasticity across goods. We first show that a broad class of demand systems that either focus on price or income elasticity heterogeneity implicitly impose strong restrictions on the correlation between income and price elasticities across goods. We show that data on trade flows does not support such correlations for import demand. We provide a generalization of the standard CES preferences that flexibly allows for general patterns of correlations between income and price elasticity. As an application of our demand system, we embed it in a Ricardian model of international trade and show it implies intuitive corrections to the standard results for the welfare gains from trade. These corrections stem from the fact that the gains from access to new varieties strongly hinge on the price and income elasticity composition of the traded goods. Empirically, we show that these compositional effects result in substantially higher welfare gains from trade in rich relative to poor countries.

# THE UNEQUAL OPPORTUNITY FOR SKILL ACQUISITION OVER THE GREAT RECESSION IN EUROPE

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Natalia Nollenberger

IE Business School - IE University

### **Abstract**

This paper is the first to investigate to what extent the high levels of joblessness brought about by the Great Recession across Europe have translated into higher school attendance among youth. Using cross-sectional and longitudinal data from the EU-SILC on 28 countries, we establish a robust counter-cyclical relationship between rising unemployment rates and school enrollment. The same is true for transitions back to education. However, our analysis by subgroups reveals a worrisome trend by which youths belonging to most disadvantaged backgrounds (measured by low household income) became less likely to enroll in University studies. Our findings suggest that austerity measures and educational cutbacks imposed during the economic downturn have made the opportunities for skill acquisition more unequal according to socioeconomic characteristics.

Keywords: Unemployment, School Enrollment, Return To Education, Youth, Great Recession, EU-SILC.

JEL Classification: I23, I24, J64, E32.

## BILINGUAL SCHOOLING AND EARNINGS: EVIDENCE FROM A LANGUAGE-IN-EDUCATION REFORM

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#### Abstract

We estimate the wage effects of bilingual education for the first time using a reform that introduced bilingualism in Catalan schools. Variation across years of schooling and birth cohorts provides identification. We find substantial returns to bilingual education. Effects worked through increased Catalan proficiency for Spanish speakers, but there were also positive impacts for Catalan speakers with less educated parents. The evidence suggests that findings are consistent with human capital effects rather than with increased search efficiency or reduced discrimination. Using the heterogeneous effect of the reform as instrument for language skills, we find sizeable returns to proficiency in Catalan.

Keywords: Bilingual Education, Returns to Schooling, Language-In-Education Reform, Catalonia.

JEL classification: J24, J31, I28.

## YOUR LANGUAGE OR MINE?

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#### **Abstract**

Do languages matter beyond their communicative benefits? We explore the potential role of preferences over the language of use, theoretically and empirically. We focus on Catalonia, a bilingual society where everyone is fully proficient in Spanish, to isolate linguistic preferences from communicative benefits. Moreover, we exploit the language-in-education reform of 1983 to identify the causal effects of language skills. Results indicate that the policy change has improved the Catalan proficiency of native Spanish speakers, which in turn increased their propensity to find Catalan-speaking partners. Hence, the acquisition of apparently redundant language skills has expanded cooperation across speech communities.

Keywords: Partnership Formation, Preferences, Segregation, Language Skills, Language Use, Language Policy.

JEL Classifications: C26, C78, I28, J12, J15.

## THE SOCIAL COST PROBLEM, RIGHTS AND THE (NON) EMPTY CORE

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#### Abstract

The "Coase theorem" is made of the efficiency and the neutrality theses. Using cooperative game theory, we show that these two theses are not compatible: there exist only two types of rights assignments that guarantee a nonempty core. Thus, the efficiency thesis holds: there exist (two types of) rights assignments under which the core of the game is nonempty - but the *neutrality* thesis does not hold - for all other rights assignments the core is empty. This complements the results found in the literature on Coase and the core. Our paper also adds two more results. Indeed, we add two principles that are not discussed in the literature about the Coase theorem: a democratic principle for rights assignments and a fairness principle for the monetary payoffs distributed to the agents, that we translate into two natural properties for a solution. We show, and this is our second main result, that the nonempty core requirement is not compatible with our democratic and fairness properties. Thus, under democratic and fairness criteria, the efficiency thesis does not hold.

Keywords: Coase Theorem, Core, Neutrality And Efficiency Theses, Rights, (Im)Possibility Results.

JEL Classification: C7, D2, K1.

## RECURSIVE METHODS FOR DISCRETE CLAIMS PROBLEMS WITH SOCIAL CONSTRAINTS

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#### Abstract

In the current approach we consider claims problems with indivisible goods. Specifically, by applying the recursive procedures proposed by Giménez-Gómez and Marco-Gil (2014) and Giménez-Gómez and Peris (2014), we ensure the fulfillment of order preservation and balancedness, considered by many authors as minimal requirements of fairness. Moreover, we retrieve the discrete constrained equal losses and the discrete constrained equal awards rules (Herrero and Martínez, 2008). Finally, by the recursive imposition of a lower bound and an upper bound, we obtain the average between them.

Keywords: Claims Problems, Indivisibility, Order Preservation, Recursive Methods, Midpoint.

JEL Classification: C71, D63, D71.

### TARGETED SOCIALIZATION AND PRODUCTION

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University of Nottingham and CONICET

Antonio Cabrales

University College London

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#### Abstract

We study a model that integrates productive and socialization efforts with network choice and parental investments. We characterize the unique symmetric equilibrium of this game. Individuals underinvest in productive and social effort. However, solving only the investment problem can exacerbate the misallocations due to network choice, to the point that in the presence of congestion effects the intervention may generate an even lower social welfare than no intervention at all. We also study the interaction of parental investment with network choice. In many scenarios, intergenerational transmission of abilities leads to a tendency towards to conformism, which aggravates potential problems of network overpopulation. We relate our equilibrium results with the existing evidence on parental occupational transmission.

Keywords: Peer Effects, Network Formation, Parental Involvement, Inter-Generational Mobility, Cultural Identity, Immigrant Sorting.

JEL Classification: D85, I20, I28, J15, J24. J61, J62.

# FATHER QUOTAS AND THE LABOR MARKET AND FERTILITY DECISIONS OF HOUSEHOLDS

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Libertad González
Universitat Pompeu Fabra and Barcelona GSE

### **Abstract**

This paper studies the effects of the introduction of a parental leave quota for fathers on households' labor market and fertility decisions. Identification is based on the 2007 reform of the Spanish family benefit system, which extended the sixteen weeks of paid parental leave by two additional weeks, exclusively reserved for fathers and nontransferable to mothers. Using a regression discontinuity design, we show that the reform substantially increased the take-up rate of fathers (by 400%), as well as the reemployment probability of mothers shortly after childbirth (by 11%). We also estimate a negative short-term effect on subsequent fertility of around 6%. However, these effects do not persist over time, suggesting a limited scope for the two additional weeks of the fathers' quota to alter household behaviors beyond the parental leave period.

Keywords: Natural Experiment, Daddy Quota, Paternity Leave, Gender And Labor Market.

JEL Classification: J48, J13, J16.

## PERFORMANCE PAY AND JUDICIAL PRODUCTION: EVIDENCE FROM SPAIN

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Berta Esteve-Volart

York University

## **Abstract**

This paper analyzes the effects of the introduction of a performance pay scheme rewarding Spanish judges. The Spanish top judicial authority established modules of production for every task judges undertake and then calculated production benchmarks. Since 2004, judges were awarded a 5% bonus if production exceeded the benchmark by 20%. We find that the introduction of this scheme increased the number of judges exceeding this threshold, and also increased average production. Nevertheless, we also observe that, consistent with a potential deterioration of intrinsic motivation, top performing judges significantly reduced their production.

Keywords: Judiciary, Pay-Per-Performance, Intrinsic Motivation.

JEL Classification: J33.

## ON THE EFFECT OF PARENTAL LEAVE DURATION ON UNEMPLOYMENT AND WAGES

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Maria Racionero
Australian National University
Jose I. Silva
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#### Abstract

We introduce parental leave policies in a labour search and matching model and study the effect of leave duration on unemployment and wages. We show that the effects are ambiguous and depend on whether the ratio of wage bargaining power of employer relative to worker is higher or lower than the ratio of the net value of the leave for employer relative to worker. Our results suggest that simulated labour market outcomes in search and matching models may be sensitive to the calibration of these key parameters of the model.

Keywords: Parental Leave, Search and Matching.

JEL Classification: E24, J38.

## INFORMATION ACQUISITION, AGENCY COSTS, AND RISK-TAKING BEHAVIOR

### David Rivero Leiva

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### Abstract

This paper develops a model of financial intermediation to evaluate the impact of the monetary policy stance in the credit quality of loans extended in a bank-dependent economy. Based on the costly state verification paradigm, I explore the trade-off for bank decision making between acquiring information prior or after loan origination. Through changes in the diligence to determinate the credit standards, information processors shift the probability of the bankruptcy state and the riskiness in the composition of the pool of borrowers. A drop in interest rates spurs the risk-taking behavior at bank-firm level via endogeneous variations in their balance sheet strength.

Keywords: Agency Problem; Imperfect Information; Lending Standards; Information Technology.

## GOVERNMENT SUPPORT, BANK PORTFOLIO CHOICES, AND THE SOVEREIGN DEBT CRISIS

Marco Casiraghi

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#### Abstract

I study theoretically and empirically how the probability of bailout affects banks' portfolio decisions depending on sovereign risk and the government's borrowing costs. The model introduces a novel channel in which an increase in the probability of bailout implies a change in the expected "bailout rents" delivered to bank owners, where the sign of the change varies according to fiscal conditions. The model predicts that an increase in the probability of bailout induces banks to decrease lending to firms and increase purchases of sovereign bonds when the government's borrowing costs are sufficiently low, while the effect reverses when these costs become high enough. Data on Italian banks between 2007 and 2015 provides evidence consistent with these predictions. The results suggest that changes in the probability of bailout are associated with a large recomposition of banks' portfolios.

Keywords: Bailout, Government Bonds, Lending, Sovereign Crisis, Credit Rating.

JEL Classification: E44, G21, G24, G28, H12, H63.

## POLITICAL CONNECTIONS: EVIDENCE FROM INSIDER TRADING AROUND TARP

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### Abstract

We exploit the 2008-2010 TARP bank bailouts after Lehman's failure to test for private information leakages from banking regulators to top corporate bank executives using insider trading data and information on political connections. In politically-connected banks, buying during the pre-TARP period is associated with increases in abnormal returns around TARP. For unconnected banks, insider trading and returns are uncorrelated. Results hold when comparing connected to unconnected executives within the same bank

and are driven by political connections to financial branches of government.

Through a FOIA request we obtained the previously unknown TARP funds requested by each bank. The ratio of requested to received funds strongly correlates with abnormal returns and is also a predictor of buying behavior by connected banks.

JEL Classification: D72, G01, G21, G28

Keywords: Political connections, Political economy in banking, Insider trading,

**TARP** 

## **DS E8. Industrial Organization 3.** Room: Aula 0 (MACBA)

## R&D CYCLICALITY AND COMPOSITION EFFECTS: A UNIFYING APPROACH

Nikolay Chernyshev University of St Andrews

## Abstract

Existing empirical studies do not concur on whether R&D spending is pro-cyclical or countercyclical: the former hypothesis is supported by studies of aggregate R&D spending, whereas the latter is vindicated by firm-level evidence. In this paper, we reconcile the two facts by advancing a general equilibrium framework, in which, while a single firm's R&D spending profile is countercyclical, aggregate R&D spending is procyclical owing to procyclical fluctuations in the number of R&D performers.

An advantage of our framework is that it brings together conflicting pieces of empirical evidence, while incorporating and building upon Schumpeter's hypothesis of countercyclical innovation.

Key words: Economic Cycles, Opportunity Cost Hypothesis, Procyclicality of R&D, Countercyclicality of R&D.

JEL Classification: E21, E23, E32, L13.

## STRATEGIC INVENTORIES UNDER LIMITED COMMITMENT

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Raffaele Fiocco
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## **Abstract**

In a storable good monopoly where demand changes over time, we investigate the firm's strategic incentives to hold inventories in response to the possibility of consumer stockpiling. The literature on storable goods has demonstrated that consumer stockpiling in anticipation of higher future prices harms the firm's profitability, particularly when the firm cannot commit to future prices. We show that, in this environment, the firm holds inventories as a strategic device to mitigate the loss from the lack of commitment. Higher production costs improve the strategic value of inventories. The impact of inventories on equilibrium prices depends on the demand curvature in a non-trivial manner.

Keywords: Commitment, Consumer Stockpiling, Monopoly, Strategic Inventories.

JEL Classification: D21, D42, L12.

# PRODUCT BUNDLING IN COMPETITIVE MARKETS: AN ANALYSIS OF ALL-INCLUSIVE IN THE BALEARIC ISLANDS, 2001 -2010

### Aleix Calveras

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### Abstract

We study all-inclusive (AI) in hospitality in a mature tourism destination as a case of product bundling in competitive markets. We show that both supply and demand factors play a role for all-inclusive board to be a sustainable market outcome: all-inclusive will arise when it increases value creation. That is, when there are cost efficiencies from such product bundling (scale and scope economies), and when there is a convenience value for consumers from acquiring the bundle, the all-inclusive board. In other words, absent value creation from bundling both products, all-inclusive board would not appear as a market outcome. Our empirical analysis with data from the lodging industry in the Balearic Islands, years 2001 - 2010, does support our theoretical insights. On the one hand, with regards to the supply factors, an all-inclusive offer is more likely for large establishments and establishments belonging to a hotel chain (indicative of AI being linked to cost efficiencies). On the other hand, all-inclusive offering appears to be related to a demand convenience from buying the bundle: while for families and sun-and-sea tourism it is more likely to acquire all-inclusive, it is less likely for cultural, biking, cultural and city tourism.

Keywords: Product Bundling, Competitive Markets, Hotel Industry, Quality, Value Creation.

## PERSISTENT AND TRANSIENT EFFICIENY ON THE STOCHASTIC PRODUCTION AND COST FRONTIERS – AN APPLICATION TO THE MOTORWAY SECTOR

Daniel Albalate *GiM-IREA, Universitat de Barcelona* Jordi Rosell *GiM-IREA, Universitat de Barcelona* 

### Abstract

This paper implements both stochastic production and cost frontier analyses to estimate the efficiency of toll motorway companies in Spain, the country with the largest number of private concessionaires in this economic sector. Our dataset includes 32 concessionaires with different features for a time span of 28 years (1988-2015). The results support the existence of scale and density economies, showing that an increase in vehicle-kilometers is more important for cost efficiency than extending the motorway. The differences between transient and persistent efficiency are significant, so that we can test for regulatory and ownership differences. The price cap regulation seems to increase management technical efficiency. Regional governments grant better projects than central governments. However, public and private concessionaire performance is not significantly different, although we find limited evidence of efficiency gains from privatization in the short run. These results help us provide new insights to evaluate policy and regulatory reforms aimed at enhancing technical efficiency in the sector.

Keywords: Motorways, Efficiency, Stochastic Frontier, Concessions, Infrastructure.

JEL Classification: D22, D24, D78, H4, H54, L25, L32, L33, L5, L9.

## ALL ROADS LEAD TO ROME ... AND TO SPRAWL? EVIDENCE FROM EUROPEAN CITIES

## Miquel-Àngel Garcia-López

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### **Abstract**

I investigate the effect of highways on residential sprawl in European cities between 1990 and 2012. I find that a 10% increase in the stock of highways (km) causes a 0.4% growth in the residential land area, a 1.7% growth in the number of residential lots, and a 0.7% growth in the percentage of undeveloped land surrounding residential land over 20 years. At the regional level, only the effect on residential area is smaller in Northwestern cities than in Mediterranean and Eastern LUZs. I also explore the impact on population growth a la Duranton and Turner (2012) and find significant positive effects. Jointly, land and population results show a negative effect of highways on the intensity of use of land. As a whole, these results confirm that highways expand cities with more fragmented residential developments surrounded by undeveloped land and reducing the overall city density.

## DO PUBLIC-PRIVATE PARTNERSHIP ENABLING LAWS INCREASE PRIVATE INVESTMENT IN INFRASTRUCTURE?

Daniel Albalate

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#### **Abstract**

Rising use of public-private partnerships, or PPPs, is an important development in U.S. infrastructure delivery. PPPs are detailed contracts between a public-sector infrastructure project sponsor and a private-sector provider that bundle together delivery aspects. PPPs are of interest because they represent a middle ground between pure public delivery of projects and complete privatization. As of late 2012, thirty-four U.S. states had enacted PPP enabling laws. Such legislation defines the broad institutional framework surrounding a PPP agreement. It typically addresses such questions as the mixing of public-and private-sector funds, the treatment of unsolicited PPP proposals, and need for prior legislative approval of PPP contracts, among other key issues. We provide the first thorough empirical assessment of the Impact of PPP enabling laws on a state's utilization of private investment. We first analyze the overall effect of having a PPP enabling law while controlling for a variety of factors, including the state's level of indebtedness, its broad political disposition, union membership, per-capita income, and other variables. We then assess the impact of thirteen individual PPP enabling law provisions. We develop an expert-informed weighted index reflecting the degree to which a state's law is encouraging or discouraging of private investment. We find that more favorable PPP enabling laws increase private investment: when our favorability index increases by one-tenth, the proportion of infrastructure investment delivered via PPP in a state increases by 0.5. We find that PPP enabling law provisions allowing unsolicited proposals and the comingling of public and private funds are particularly important in attracting private investment.

Keywords: Transportation Infrastructure; Public-Private Partnerships; Private Investment; State Public-Private Partnership Enabling Laws; Fiscal Constraints.

JEL Classification: L14; L33; L51; L92, L98.

## INDUSTRY AND SERVICES IN BALEARES, 1950-2015: REGIONAL DEINDUSTRIALIZATION IN A TOURISM ECONOMY

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Elisabeth Valle
Facultat d'Economia, Universitat de les Illes Balears

### **Abstract**

The research focuses on analyzing economic developments in the Balearic Islands between 1950 and 2015, with an emphasis on the process of loss of industrial assets and decisive advance in the service sector, particularly tourism. Theoretical arguments emerging from the economic literature are to specify whether this industrial decline, which involves the outsourcing of the economy, is the absolute disappearance of any initiative outside of the services's economy. The authors use macroeconomic variables of Baleares to set the general context and analysis of the Input-Output tables for, key tool in the national accounts, make a study of this hypothesis: services in mature economies can stimulate transformation's activities, if a more comprehensive and current view of the manufacturing concept is adopted.

Keywords: Deindustrialization, Balearic Islands, Service Economy, Industrialization.

JEL Classification: N14, N94, L52, L80.

## LATIN AMERICAN TRADE DURING THE FIRST GLOBALIZATION: A NEW MEASURE OF PRODUCT DIFFERENTIATION COMPARABLE IN TIME AND ACROSS COUNTRIES

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Anna Carreras-Marín
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## **Abstract**

The Latin American integration to the international markets during the First Globalization (1870-1913) has been a topic widely discussed by historians. A big part of the discussion has been around trade concentration (or lack of diversification) based on the high share of few main products or main destinations in each country's exportation. This approach has prevented detailed knowledge of the pattern of the exported goods, i.e. the relative share of each of the partners by item. Additionally, it has hampered the analysis of potential trade in its extensive terms. In this article we present new empirical evidence from the official foreign trade statistics of a sample of Latin American countries around 1912in order to analyse the degree of diversification both by product and by destination. Through standardizing the records of each country with the Standard International Trade Classification (SITC), we offer a new measure of product diversification that allows for comparison across countries as well as in time. Additionally, we complement that measure with the number of destinations, including differentiation by markets. These new measures arise some new questions on the Latin American trade performance of the period before the First World War. On the one hand, the traditional hegemony of Argentina, as a unique and exceptional case of diversification in the region, diminishes with the higher diversification of Uruguay, Mexico and Chile. On the other hand, in relative terms, no country in Latin America was so much diversified as the exporters of manufactures in Europe, but they were quite close to those countries in the periphery also specialized in commodities. It seems as if the nature of the goods exported mattered a lot in the potential diversification of trade, possibly mediating into the link between exports and economic growth.

Keywords: Export-Led-Growth Model, Latin American Trade, Diversification, Extensive Margin of Trade, Standardization.

## TRACING THE EVOLUTION OF AGGLOMERATION ECONOMIES: SPAIN, 1860-1991

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### Abstract

This article attempts to quantify how the effect of agglomeration economies on population growth has evolved over time. Using district population in Spain between 1860 and 1991, recorded approximately every decade, this article examines whether initial population affects subsequent population growth. Our results show that, while the relationship between these two variables hardly existed during the second half of the 19<sup>th</sup> century, this link increased significantly between 1910 and 1970, although this trend was abruptly interrupted by the Civil War and the autarkic period that followed. The intensity of this relationship debilitated in the 1970s, a process that continued during the 1980s as rural out-migration diminished and de-industrialisation hit traditional manufacturing sectors. Our findings also stress that agglomeration economies were stronger in medium-size districts, especially from 1960 onwards, thus suggesting that congestion costs began to mitigate the benefits arising from agglomeration economies in the largest locations.

Keywords: Agglomeration Economies, Regional Growth, Spain.

JEL Classification: N93, N94, O18, R11, R12.