

# DEPARTMENT OF ECONOMICS

## ANNUAL RESEARCH NEWSLETTER 2021

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*Dear colleagues and friends, with a highlight of the continued improvement of our department reflected in acquiring several research projects, in high-quality publications, and in successful recruiting, I would like to present to you the fourth issue of our annual research newsletter on the department's scientific achievements and faculty recruitment during 2021.*



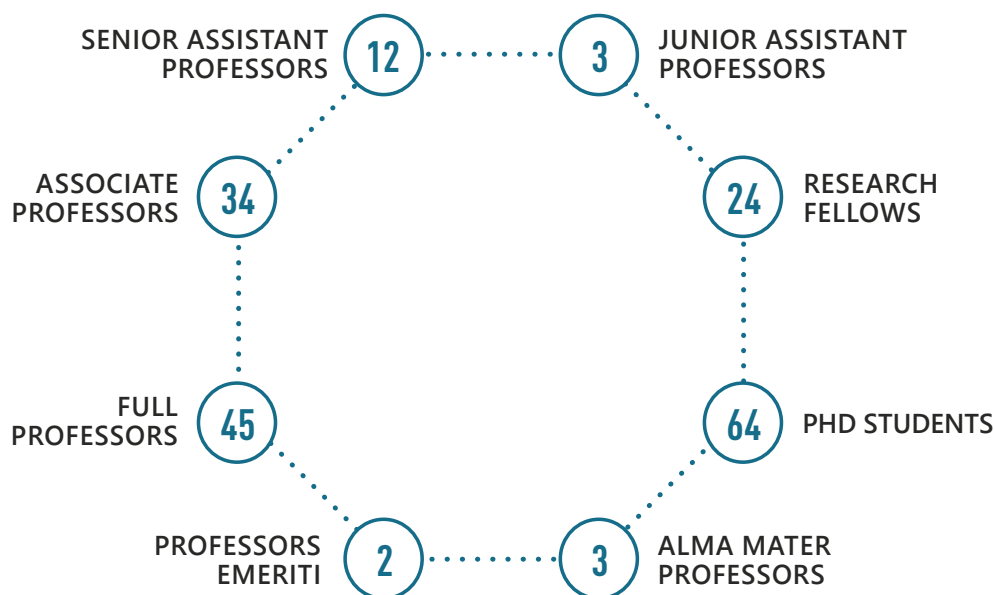
**MATTEO CERVELLATI**

Head of the Department of Economics  
Alma Mater Studiorum - Università di Bologna



# The Department in numbers

## Research staff



## In-and-out's

### New hires

- **Maria Arvaniti**, junior assistant professor  
PhD University of Warwick
- **Emanuele Bacchiocchi**, associate professor  
PhD Alma Mater Studiorum - Università di Bologna
- **Giulio Fella**, full professor  
PhD Università di Pavia - London School of Economics
- **Riccardo Ghidoni**, senior assistant professor  
PhD Alma Mater Studiorum - Università di Bologna
- **Martin Gonzalez-Eiras**, associate professor  
PhD Massachusetts Institute of Technology
- **Stephanie Heger**, senior assistant professor  
PhD Washington University in St. Louis
- **Lorenzo Masiero**, senior assistant professor  
PhD USI Università della Svizzera italiana
- **Filippo Massari**, senior assistant professor  
PhD Washington University in St. Louis
- **Jonathan Neil Chapman**, senior assistant professor  
PhD California Institute of Technology
- **Denni Tommasi**, senior assistant professor  
PhD ECARES, Université libre de Bruxelles

### Promotions

- **Elias Carroni**, associate professor  
PhD Université de Namur & UCLouvain
- **Carmine Guerriero**, associate professor  
PhD University of Cambridge
- **Massimiliano G. Onorato**, associate professor  
PhD Università Bocconi
- **Alessandro Tavoni**, associate professor  
PhD Università Ca' Foscari Venezia
- **Paolo Vanin**, full professor  
PhD Università di Pavia - Universitat Pompeu Fabra

### Retired faculty

- **Aura Reggiani**, full professor  
PhD Vrije Universiteit Amsterdam

# Completed doctorates

LAST NAME	FIRST NAME	THESIS TITLE	SUPERVISOR
Ghibellini	Elena	<i>Bank Crisis Management and State Aid in the EU: A Comparative Law and Economics Analysis of Bank Resolution, Precautionary Recapitalisation and Bank Liquidation</i>	Marco Lamandini, Alessio Paces
Jiang	Jian	<i>Vulnerabilities, Cybersecurity, and the Role of Law and Regulation herein</i>	Eli Salzberger, Niels Philipsen
Li	Shu	<i>The Quest for Product Safety in the Context of 3D Printing: A Law and Economics Analysis</i>	Klaus Heine, Michael Faure
Pena Madeira Gouveia de Campos	Maria Carolina	<i>Maria Carolina At the Intersection of Behavioural Economics, Nudging and Regulation: Rethinking the Process of Nudge Design for Regulation</i>	Klaus Heine, Franziska Weber

## Research seminars and guests



# Selected publications by members of the department in 2021

## Econometrics

- **Barigozzi, M.**, Hallin, S. Soccorsi, R. von Sachs. [Time-Varying General Dynamic Factor Models and the Measurement of Financial Connectedness](#). *Journal of Econometrics* 222: 324–43.
- **Barigozzi, M.**, M. Lippi, M. Luciani. [Large-Dimensional Dynamic Factor Models: Estimation of Impulse-Response Functions with I\(1\) Cointegrated Factors](#). *Journal of Econometrics* 221: 455–82.
- Boswijk, H.P., **G. Cavaliere**, **I. Georgiev**, A. Rahbek. [Bootstrapping non-Stationary Stochastic Volatility](#). *Journal of Econometrics* 224: 161–80.
- **Cavaliere, G.**, A. Rahbek. [A Primer on Bootstrap Testing of Hypotheses in Time Series Models: With an Application to Double Autoregressive Models](#). *Econometric Theory* 37: 1–48.

## Environmental and Resource Economics

- **Arvaniti, M.**, W. Habla. [The Political Economy of Negotiating International Carbon Markets](#). *Journal of Environmental Economics and Management* 110: 102521.
- Baer, M., **E. Campiglio**, J. Deyris. [It Takes Two to Dance: Institutional Dynamics and Climate-Related Financial Policies](#). *Ecological Economics* 190: 107210.
- Bonardi, J.-P., Q. Gallea, D. Kalanoski, R. Lalive, R. Madhok, F. Noack, D. Rohner, **T. Sonno**. [Saving the World from Your Couch: The Heterogeneous Medium-Run Benefits of COVID-19 Lockdowns on Air Pollution](#). *Environmental Research Letters* 16: 074010.
- Cahen-Fourot, L., **E. Campiglio**, A. Godin, E. Kemp-Benedict, S. Trsek. [Capital Stranding Cascades: The Impact of Decarbonisation on Productive Asset Utilisation](#). *Energy Economics* 103: 105581.
- Carter, T.R., M. Benzie, **E. Campiglio**, H. Carlsen, S. Fronzek, M. Hildén, C.P.O. Reyser, C. West. [A Conceptual Framework for Cross-Border Impacts of Climate Change](#). *Global Environmental Change* 69: 102307.
- **Lambertini, L.** [Regulating the Tragedy of Commons: Nonlinear Feedback Solutions of a Differential Game with a Dual Interpretation](#). *Energy Economics* 100: 105363.
- Levin, S., **A. Xepapadeas**. [On the Coevolution of Economic and Ecological Systems](#). *Annual Review of Resource Economics* 13: 355–77.
- Semieniuk, G., **E. Campiglio**, J.-F. Mercure, U. Volz, N.R. Edwards. [Low-Carbon Transition Risks for Finance](#). *WIREs Climate Change* 12: e678.
- Sumaila, U.R., ..., **A. Tavoni**, ... [WTO Must Ban Harmful Fisheries Subsidies](#). *Science* 374: 544.
- **Tavoni, A.**, R. Winkler. [Domestic Pressure and International Climate Cooperation](#). *Annual Review of Resource Economics* 13: 225–43.

## Health

- Alessandrini, R., F.J. He, Y. Ma, **V. Scrutinio**, D.S. Wald, G.A. MacGregor. [Potential Impact of Gradual Reduction of Fat Content in Manufactured and out-of-Home Food on Obesity in the United Kingdom: A Modeling Study](#). *The American Journal of Clinical Nutrition* 113: 1312–21.
- Arni, P., **D. Dragone**, L. Goette, N.R. Ziebarth. [Biased Health Perceptions and Risky Health Behaviors - Theory and Evidence](#). *Journal of Health Economics* 76: 102425.
- **Burani, N.** [No Mission? No Motivation. On Hospitals' Organizational Form and Charity Care Provision](#). *Health Economics* 30: 3203–19.
- Connelly, L.B., **G. Fiorentini**. [Structural Factors and Integrated Care Interventions: Is There a Role for Economists in the Policy Debate?](#) *The European Journal of Health Economics* 22: 1141–50.
- **Dragone, D.**, D. Raggi. [Resolving the Milk Addiction Paradox](#). *Journal of Health Economics* 77: 102452.
- Ham, J.C., **D. Iorio**, M. Sovinsky. [Health Outcomes, Personality Traits and Eating Disorders](#). *Economic Policy* 36: 51–76.
- Salvarani, C., G. Dolci, M. Massari, D.F. Merlo, **S. Cavuto**, L. Savoldi, P. Bruzzi, F. Boni, L. Braglia, C. Turra, P.F. Ballerini, R. Sciascia, L. Zammarchi, O. Para, P.G. Scotton, W.O. Inojosa, V. Ravagnani, N.D. Salerno, P.P. Sainaghi, A. Brignone, M. Codeluppi, E. Teopompi, M. Milesi, P. Bertomoro, N. Claudio, M. Salio, M. Falcone, G. Cenderello, L. Donghi, V. Del Bono, P.L. Colombelli, A. Angheben, A. Passaro, G. Secondo, R. Pascale, I. Piazza, N. Facciolongo, M. Costantini. [Effect of Tocilizumab vs Standard Care on Clinical Worsening in Patients Hospitalized with COVID-19 Pneumonia: A Randomized Clinical Trial](#). *JAMA Internal Medicine* 181: 24–31.

## Household, Public and Labor Economics

- Arenas, A., C. Calsamiglia, **A. Loviglio**. [What Is at Stake without High-Stakes Exams? Students' Evaluation and Admission to College at the Time of COVID-19](#). *Economics of Education Review* 83: 102143.
- **Bonacini, L.**, G. Gallo, S. Scicchitano. [Working from Home and Income Inequality: Risks of a 'New Normal' With COVID-19](#). *Journal of Population Economics* 34: 303–60.
- **Bonacini, L.**, G. Gallo, F. Patriarca. [Identifying Policy Challenges of COVID-19 in Hardly Reliable Data and Judging the Success of Lockdown Measures](#). *Journal of Population Economics* 34: 275–301.
- **Bortolotti, S.**, T. Dohmen, **H. Lehmann**, F. Meyer, N. Pignatti, K. Torosyan. [Patience, Cognitive Abilities, and Cognitive Effort: Survey and Experimental Evidence from a Developing Country](#). *American Behavioral Scientist* 65: 1512–30.
- De Nardi, M., **G. Fella**, M. Knoef, G. Paz-Pardo, R. Van Ooijen. [Family and Government Insurance: Wage, Earnings, and Income Risks in the Netherlands and the U.S.](#) *Journal of Public Economics* 44: 104327.

# Selected publications by members of the department in 2021

- Demange, P.A., M. Malanchini, T.T. Mallard, **P. Biroli**, S.R. Cox, A.D. Grotzinger, E.M. Tucker-Drob, A. Abdellaoui, L. Arseneault, E. van Bergen, D.I. Boomsma, A. Caspi, D.L. Corcoran, B.W. Domingue, K.M. Harris, H.F. Ip, C. Mitchell, T.E. Moffitt, R. Poulton, J.A. Prinz, K. Sugden, J. Wertz, B.S. Williams, E.L. de Zeeuw, D.W. Belsky, K.P. Harden, M.G. Nivard. [Investigating the Genetic Architecture of Noncognitive Skills Using GWAS-by-Subtraction](#). *Nature Genetics* 7: 775–87.
- Huei-Jong Graf, G., **P. Biroli**, D.W. Belsky. [Critical Periods in Child Development and the Transition to Adulthood](#). *JAMA Network Open* 7: e2033359.

## Industrial Organization, Economic Theory

- Assad, S., E. Calvano, G. Calzolari, R. Clark, **V. Denicolò**, D. Ershov, J. Johnson, **S. Pastorello**, A. Rhodes, L. Xu, M. Wildenbeest. [Autonomous Algorithmic Collusion: Economic Research and Policy Implications](#). *Oxford Review of Economic Policy* 37: 459–78.
- **Cherubini, U.** [Estimating Redenomination Risk under Gumbel–Hougaard Survival Copulas](#). *Journal of Economic Dynamics and Control* 133: 104268.
- **Cherubini, U.**, S. Mulinacci. [Extensions and Distortions of  \$\lambda\$ -Fuzzy Measures](#). *Fuzzy Sets and Systems* 412: 27–40.
- Levine, D.K., **A. Mattozzi**, S. Modica. [Trade Associations: Why not Cartels?](#). *International Economic Review* 62: 47–64.
- **Mantovani, A.**, C.A. Piga, C. Reggiani. [Online Platform Price Parity Clauses: Evidence from the EU Booking.com Case](#). *European Economic Review* 131: 103625.
- Petracou, E.V., **A. Xepapadeas**, A.N. Yannacopoulos. [Decision Making under Model Uncertainty: Fréchet–Wasserstein Mean Preferences](#). *Management Science* 68: 1195–211.

## Monetary Economics, Finance, Growth

- **Agliardi, E.**, R. Agliardi. [Pricing Climate-Related Risks in the Bond Market](#). *Journal of Financial Stability* 54: 100868.
- **Angelini, G.**, M.M. Sorge. [Under the Same \(Chole\)Sky: DNK Models, Timing Restrictions and Recursive Identification of Monetary Policy Shocks](#). *Journal of Economic Dynamics and Control* 133: 104265.
- **Barone, G.**, L. Mirenda, S. Mocetti. [Losing My Connection: The Dark Side of Bank–Firm Interlocking Directorates](#). *Economica* 88: 474–98.
- **Bontempi, M.E.**, M. Frigeri, **R. Golinelli**, M. Squadra. [EURQ: A New Web Search-Based Uncertainty Index](#). *Economica* 88: 969–1015.
- Fanelli, S., **M. Gonzalez-Eiras**. [Resolution of Financial Crises](#). *Journal of Economic Dynamics and Control* 133: 104252.
- Gokmen, G., T. Nannicini, **M.G. Onorato**, C. Papageorgiou. [Policies in Hard Times: Assessing the Impact of Financial Crises on Structural Reforms](#). *The Economic Journal* 131: 2529–52.

- Madsen, J.B., **A. Minniti**, F. Venturini. [Wealth Inequality in the Long Run: A Schumpeterian Growth Perspective](#). *The Economic Journal* 131: 476–97.

## Political Economy, Development, Growth

- **Barone, G.**, H. Kreuter. [Low-Wage Import Competition and Populist Backlash: The Case of Italy](#). *European Journal of Political Economy* 67: 101970.
- **Cantoni, E.**, V. Pons. [Strict Id Laws Don't Stop Voters: Evidence from a U.S. Nationwide Panel, 2008–2018](#). *Quarterly Journal of Economics* 136: 2615–60.
- **Cantoni, E.**, L. Gazzè, J. Schafer. [Turnout in Concurrent Elections: Evidence from Two Quasi-Experiments in Italy](#). *European Journal of Political Economy* 70: 102035.
- Daniele, G., S. Mookerjee, **D. Tommasi**. [Informational Shocks and Street-Food Safety: A Field Study in Urban India](#). *The Review of Economics and Statistics* 103: 563–79.
- **Gonzalez-Eiras, M.**, C. Sanz. [Women's Representation in Politics: The Effect of Electoral Systems](#). *Journal of Public Economics* 198: 104399.

## Spatial Economics and Trade

- **Barone, G.**, F. David, F. De Blasio, S. Mocetti. [How Do House Prices Respond to Mortgage Supply?](#) *Journal of Economic Geography* 21: 127–40.
- Bürker, M., I. Mammi, **G.A. Minerva**. [Civic Capital and Service Outsourcing: Evidence from Italy](#). *European Economic Review* 138: 103855.
- **Conte, B.**, K. Desmet, D.K. Nagy, E. Rossi-Hansberg. [Local Sectoral Specialization in a Warming World](#). *Journal of Economic Geography* 21: 493–530.
- **Lippi Bruni, M.**, **C. Ugolini**, **R. Verzulli**. [Should I Wait or Should I Go? Travelling versus Waiting for Better Healthcare](#). *Regional Science and Urban Economics* 89: 103697.

## Tourism Economics

- Arabadzhyan, A., **P. Figini**, C. Garcia, M.M. Gonzalez, Y.E. Lam-Gonzalez, C.J. Leon. [Climate Change, Coastal Tourism, and Impact Chains – A Literature Review](#). *Current Issues in Tourism* 24: 2233–68.
- **Figini, P.**, **R. Patuelli**. [Estimating the Economic Impact of Tourism in the European Union: Review and Computation](#). *Journal of Travel Research* 61: 1409–23.
- Guizzardi, A., F.M.E. Pons, **G. Angelini**, E. Ranieri. [Big Data from Dynamic Pricing: A Smart Approach to Tourism Demand Forecasting](#). *International Journal of Forecasting* 37: 445–56.
- Guizzardi, A., A. Stacchini, **M. Costa**. [Can Sustainability Drive Tourism Development in Small Rural Areas? Evidence from the Adriatic](#). *Journal of Sustainable Tourism* 30: 1280–1300.

# Research in brief

Demange, P.A., M. Malanchini, T.T. Mallard, **P. Biroli**, S.R. Cox, A.D. Grotzinger, E.M. Tucker-Drob, A. Abdellaoui, L. Arsenault, E. van Bergen, D.I. Boomsma, A. Caspi, D.L. Corcoran, B.W. Domingue, K.M. Harris, H.F. Ip, C. Mitchell, T.E. Moffitt, R. Poulton, J.A. Prinz, K. Sugden, J. Wertz, B.S. Williams, E.L. de Zeeuw, D.W. Belsky, K.P. Harden, M.G. Nivard. Investigating the Genetic Architecture of Noncognitive Skills Using GWAS-by-Subtraction. *Nature Genetics* 7: 775–87.

This study uses genetic data to study what economists have called “non-cognitive skills.” Non-cognitive skills are defined by what they aren’t – they are behaviors and abilities that are not measured by traditional IQ tests but are thought to help people be more successful in school, in their jobs, and in life generally. Previous studies tell us that non-cognitive skills are heritable. Using a novel methodology that combines information from several genome-wide association studies (GWAS), we go a step further and try to identify which genetic variants are systematically related to non-cognitive skills. We found five important results: (i) The genetics of non-cognitive skills are correlated with important life outcomes. (ii) The genetics of non-cognitive skills are correlated with personality traits that have been described by psychologists as part of their “Big Five” theory of personality. (iii) The genetics of non-cognitive skills are correlated with the ability to defer gratification (iv) The genetic variants correlated with non-cognitive skills are also correlated with higher risk for several mental disorders, including schizophrenia, bipolar disorder, anorexia nervosa, and obsessive-compulsive disorder. (v) The genes associated with non-cognitive skills are primarily active in the brain, rather than in other parts of the body. For more information on what our study means, and what it does NOT mean, please read this lay [summary](#).

**Conte, B.**, K. Desmet, D.K. Nagy, E. Rossi-Hansberg. Local Sectoral Specialization in a Warming World. *Journal of Economic Geography* 21: 493–530.

In discussing trade policy in the context of climate change, some people are quick to argue that trade might have to be restricted. After all, trade involves transportation, and unfortunately, transportation is an important source of carbon emissions. In addition, there is growing support for carbon border adjustments, a tariff on carbon-intensive imports. Yet, by facilitating locations to switch specialisation, trade may also be a powerful way to mitigate the negative economic effects of global warming. The underlying logic of this claim is straightforward. The impact of rising temperatures depends both on location (e.g. southern Canada or equatorial Africa) and occupation (e.g. farmer or service worker). As such, climate change can be thought of as a shock to comparative advantage. Faced with such a shock, locations are bound to respond by changing their specialisation patterns. This paper investigates this issue by quantitatively assessing the world’s changing economic geography and sectoral specialization due to global warming. It proposes a two-sector dynamic spatial growth model that incorporates the relationship between economic activity, carbon emissions and temperature. Over a 200-year horizon, rising temperatures consistent with emissions under RCP 8.5 push people and economic activity northwards to Siberia, Canada and Scandinavia. Compared with a world without climate change, clusters of agricultural specialization shift from Central Africa, Brazil and India’s Ganges Valley to Central Asia, parts of China and northern Canada. Equatorial latitudes that lose agriculture specialize more in non-agriculture but, due to their persistently low productivity, lose population. By the year 2200, predicted losses in real GDP and utility are 6% and 15%, respectively. Higher trade costs make adaptation through changes in sectoral specialization more costly, leading to less geographic concentration in agriculture and larger climate-induced migration.

**Angelini, G.**, M.M. Sorge. Under the Same (Chole)Sky: DNK Models, Timing Restrictions and Recursive Identification of Monetary Policy Shocks. *Journal of Economic Dynamics and Control* 133: 104265.

Understanding how changes in the monetary policy instruments (e.g. the monetary base and/or the short-term nominal interest rate) affect real variables such as aggregate output and employment, is key to evaluating the effectiveness of monetary policy against its stabilization goals. In standard New Keynesian models of the monetary transmission mechanism, a monetary tightening, in the form of an unexpected shock to the interest rate, produces real effects in the presence of staggered price setting, for it depresses aggregate output, which in turn puts downward pressure on inflation.

It is often argued that such monetary policy shocks affect real variables only with a delay. This view has informed a large number of econometric explorations of the transmission mechanism that rely on reduced form autoregressive models. It is nonetheless less clear what this view would bring about in theory-based representations of the dynamic interactions between private agents and the monetary authority. The present paper interrogates theoretical New Keynesian models in order to trace out the effects of transmission delays that originate from the lack of up-to-date information on the part of private agents about the occurrence of unforeseen monetary tightenings. Our main results are as follows: (i) information-based transmission delays can be a serious threat to the proper estimation of the true monetary transmission mechanism, for it is likely to require sample (time series) data of length that are unavailable in practice; these delays can even prevent identification of monetary shocks, for they are not retrievable from observed data; (ii) information-constrained New Keynesian models do not suffer from these issues: standard reduced form autoregressive systems that comply with the “delayed effects” view of policy shocks perform well in detecting the true monetary transmission mechanism.

**Cantoni, E., V. Pons.** Strict ID Laws Don't Stop Voters: Evidence from a U.S. Nationwide Panel, 2008–2018. *Quarterly Journal of Economics* 136: 2615–60

U.S. states increasingly require identification to vote. Proponents of identification requirements maintain that, similarly to what happens amid little public resistance in many democracies, strict ID laws are a commonsense measure to preserve the transparency and integrity of the voting process. In contrast, their detractors affirm that voter impersonation is a pretext used by Republican policy-makers to justify laws that restrict the franchise of Democratic-leaning voters, who are less likely to possess identification. Cantoni and Pons (2021) study the effects of strict voter ID laws on voter turnout and voter fraud. Their paper reaches a surprising conclusion: These rules don't impact voter fraud or public confidence, nor do they dampen registration or turnout. In essence, voter ID laws don't influence elections at all. To estimate the laws' effects on turnout, the authors use a novel voter-level panel dataset that covers virtually the universe of the U.S. voting-eligible population, 2008-2018, and an empirical strategy based on comparing the turnout trajectories of voters in states that implemented strict ID laws to those of voters in states that never implemented voter ID laws. They find that the laws have no negative effect on registration or turnout, overall or for any group defined by race, gender, age, or party affiliation. These results hold through a large number of specifications and cannot be attributed to voters' reaction against the laws or measured by campaign contributions and self-reported political engagement. However, the likelihood that non-white voters were contacted by a campaign increases by 5.4 percentage points, suggesting that parties' mobilization might have offset modest effects of the laws on the participation of ethnic minorities. Finally, strict ID requirements have no effect on fraud - actual or perceived. Overall, the paper's findings suggest that efforts to improve elections may be better directed at other reforms.

**Madsen, J.B., A. Minniti, F. Venturini.** Wealth Inequality in the Long Run: A Schumpeterian Growth Perspective. *The Economic Journal* 131: 476–97.

The increasing income and wealth inequality over the last decades in the OECD countries has been attributed to various factors, including a decline in relative prices of investment goods, a deceleration in human capital accumulation, an increase in the wealth-income (W-Y) ratio induced by reduced productivity growth, and an automation of tasks previously performed by labor. Our paper contributes to this literature by showing that intangibles have been a contributing factor in wealth inequality since 1860 and that the marked increase in investment in intangible assets has been a significant driver of the increasing inequality since the 1970s. In order to drive our empirical analysis, we develop a Schumpeterian growth model where the W-Y ratio is shown to be governed by both the tangible and intangible investment ratios and income growth. An implication of this set-up is that intangibles increase the W-Y ratio by raising the capitalized value of the firms and, at the same time, they reduce this ratio through innovation-driven growth. We test the empirical implications of the model and, more importantly, assess the contribution of intangible and tangible investment ratios for the evolution of the W-Y ratio using newly constructed data for 21 OECD countries over the period 1860-2015. As predicted by the theoretical model, we find that the W-Y ratio is positively affected by both tangible and intangible investment ratios and negatively affected by income growth. Quantifying the contributions of investment ratios to the increasing wealth inequality in the post-WWII period, we find that the surge in investment in intangibles has contributed to a 53% increase in the W-Y ratio, while the decline in the tangible investment ratio since 1964 has resulted in a 26% decline in the W-Y ratio. Thus, our evidence suggests that the marked expansion of the knowledge economy has overtaken tangibles as a key driver of the W-Y ratio.

**Gonzalez-Eiras, M., C. Sanz.** Women's Representation in Politics: The Effect of Electoral Systems. *Journal of Public Economics* 198: 104399.

Based on Spanish municipal elections, this study shows that electoral systems may have a sizable impact on women's representation. It exploits the fact that, depending on their population, municipalities follow one of two different electoral systems. Municipalities with more than 250 inhabitants must use a closed list (CL), proportional representation system to elect a city council. Municipalities with 250 or fewer inhabitants must use an open list (OL) system, in which voters can vote for individual candidates from the same or different parties. This context is well suited to obtain credible estimates of causal effects implementing a regression discontinuity (RD) design. The results show that, relative to the OL system, the CL system increases the share of female candidates by 4.1 percentage points (p.p.), a relative increase of 15.7%. Similarly, the CL system increases the share of female councilors by 4.8 p.p. (22.5%) and the share of female mayors by 7.1 p.p. (45.1%). A theoretical model is developed to show the implications of three possible mechanisms - supply differences, voter bias, and party bias - have on female participation across the two electoral systems. A simulated method of moments approach is adopted to target the observed differences in the share of female candidates, councilors, and mayors across electoral systems. The empirical results are best explained by sizable supply effects and party bias. The model captures the common argument that, in the presence of party bias and a weaker voter bias, OL systems are better for women. But the model also brings nuance to this prediction. First, if there are supply differences, with women being less likely to run in OL systems, then women's representation may end up being lower in OL than in CL systems even in the presence of party bias. Second, an OL system that gives (biased) parties the ability to select the executive after the election, allows parties not to appoint female mayors, and thus the share of female mayors may end up being lower in OL than in CL systems.

# Funded projects

## New projects

- **Aura Reggiani** (Alma Mater Professor) and **Roberto Patuelli**'s project "**Smart Mobility Hubs as Game Changers in Transport (SmartHubs)**" (2021-24; various funding agencies; € 2,142,632), obtained through the ERA-NET Urban Accessibility and Connectivity call of JPI-Urban Europe, started operations. The project examines mobility hubs, dedicated on-street locations where citizens can choose from different shared and sustainable mobility options. The main objective is to assess if a co-designed, user-centric development can enable mobility hubs to act as a game changer towards inclusive sustainable urban mobility and accessibility. This is done also through several SmartHubs Living Labs, in Brussels, the Rotterdam-the Hague metropolitan region, Munich, Austria and Istanbul. The project's PI is Karst Geurs (University of Twente), while the Unibo budget, provided by the Italian Ministry of University and Research, is € 142,430.
- **Luca Lambertini** started work on the Horizon 2020 project "**I-CHANGE**" (Individual Change of HABits Needed for Green European transition) (2021-25; European Commission; € 4,949,998). The project faces the challenge of engaging and promoting the active participation of citizens to address climate change, sustainable development and environmental protection in the framework of the European Green Deal, the European Climate Pact and the European Biodiversity Strategy for 2030. The driving concept is that citizens and civil society have a central role in the definition of environmental protection and climate action and their direct involvement is essential to drive a true shift towards more sustainable patterns. The Unibo team is led by Silvana Di Sabatino (Department of Physics and Astronomy), with a budget of € 478,983, while the project leader is the CIMA Research Foundation.

## Recently completed projects

- **Paolo Figini**'s Horizon 2020 project "**SOCLIMPACT**" (DownScaling CLimate impACTs and decarbonisation pathways in EU islands and enhancing socioeconomic and non-market evaluation of Climate Change for Europe, for 2050 and beyond) (2017-21; European Commission; € 4,481,340) was completed in 2021. The project, led by the University of Gran Canaria in Las Palmas", involved 24 European partners. The Unibo unit involved Roberto Patuelli and other researchers from CAST (Centre for Advanced Studies in Tourism), with a budget of €155,056. The team mainly worked on WP5 and WP6, assessing the impact of climate change on the tourism sector of several European islands through the use of Big Data analytics, while more in general, the project studied the warming of the climate system on islands, which are particularly vulnerable to Climate Change (CC) consequences. SOCLIMPACT aimed at modelling downscaled CC effects and their socioeconomic impacts in European islands for 2030-2100, in the context of the EU Blue Economy sectors, and assessed corresponding decarbonisation and adaptation pathways, complementing current available projections for Europe, and nourishing actual economic models with non-market assessment.
- **Luca De Angelis** concluded the project "**Scaling-up Green Finance to Achieve the Climate and Energy Targets: An Assessment of Macro-Financial Opportunities and Challenges for Austria – GreenFin**" (2020-21; Klima+Energie Fonds; about € 250,000), funded through the Austrian Climate Research Programme (ACRP11) and coordinated by Irene Monasterolo (Vienna University of Economics and Business). GreenFin contributed to analyse what role finance (markets, green policies and governance structures) could play to scale-up green investments in Austria. GreenFin developed fit-for-purpose macrofinancial models to analyse under which conditions green policies, such as carbon pricing and green macroprudential regulations, and green bonds, can support the low-carbon transition in Austria while avoiding unintended effects on financial stability and inequality. Since GreenFin was implemented during the COVID-19 crisis, the scope of the project has been extended to consider the compounding of the impact of the pandemic with climate physical risks in the economy and finance. GreenFin's models have been applied in collaboration with international financial actors, such as the World Bank and the European Central Bank, to inform finance policy debate, and GreenFin's results have been published on top journals. Luca De Angelis was responsible for analysing and measuring the impact of climate-related policies on Austrian financial markets. The funding share at Unibo was around € 30,000.





WTO Must Ban Harmful Fisheries Subsidies. *Science* 374: 544

Alessandro Tavoni

Scientific developments in the last decades have led to a much-improved understanding of the functioning of aquatic ecosystems, and to global awareness of the need to manage them sustainably. The importance of utilizing fisheries and aquaculture resources responsibly is now widely recognized and prioritized, in line with the aims of Sustainable Development Goal 14: "Conserve and sustainably use the oceans, seas and marine resources for sustainable development". There are good reasons that warrant a focus on achieving sustainability in the management of wild fisheries: they support food and nutritional security, livelihoods, and cultures. Yet, harmful fisheries subsidies - government payments that incentivize overcapacity and lead to overfishing - are on the rise, undermining said benefits. The World Trade Organization (WTO) is instrumental to reach an agreement that eliminates harmful subsidies.

To curb overfishing, biodiversity degradation and loss, and CO<sub>2</sub> emissions, and to safeguard food and livelihoods, WTO members must prohibit fisheries subsidies that cause harm, such as those that lower the cost of fuel and vessel construction and those that provide price support to keep market prices artificially high. Subsidies to distant-water fishing fleets must be eliminated to prevent overfishing on the high seas and in waters under national jurisdiction. Such subsidies threaten low-income countries that rely on fish for food sovereignty. Exceptions to the rules - known as special and differential treatment - should be considered for small-scale fishers that use low-impact gears or that fish for subsistence, but only if decoupled from incentivizing overfishing.

An effective agreement must eliminate subsidies for fuel, distant-water and destructive fishing fleets, and illegal and unregulated vessels in line with the aims of Sustainable Development Goal 14.6. To ensure accountability, it should also support low-income countries' efforts to meet their commitments and transition to sustainable management. Finally, the agreement should require transparent data documentation and enforcement measures.

To this end, key players are the heads of state of the High-Level Panel for a Sustainable Ocean Economy, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, and the United States-Mexico-Canada Agreement - who have already committed to eliminating harmful subsidies. Together with further pivotal actors such as other trade blocs and individual countries, they should promptly declare their support for an agreement that enshrines these recommendations. WTO members must harness their political mandate to protect the health of the ocean and the well-being of society.

