Do product market reforms raise innovation? Evidence from Micro-data across 12 countries (with Anastasia Litina and Christos Makridis), Technological Forecasting and Social Change, Volume 169, August 2021, 120841

Abstract: How does policy affect innovation and the digital economy? We revisit how product market regulation affects innovation and develop a novel framework for thinking about digital regulation. Using new company-level micro-data across 12 countries between 1998 and 2012, this paper first estimates the effect of competition policy on innovation. We find that a standard deviation rise in standardized index of product market regulation is associated with a 1.03% decline in innovation activities. These declines are a result of product market regulation on the incentives to invest in in-house R&D and make the appropriate capital acquisitions, as well as of the effects of regulation on the cost of innovation activities. We then theorize on the effect of digital regulation on innovation and we empirically explore it on a sub-sample of the years in our analysis. We find that “protective regulation”, i.e., regulation that creates predictability and scope for markets to work, confers a positive effect on innovation, while “restrictive regulation”, i.e., regulation that endeavors to spell out negative behaviors, confers a negative effect on innovation. We also find that the digital regulation results are more sensitive to the content of regulation. We attribute this ambiguity to the fact that markers require an enhanced level of trust to be operative.

Transportation Networks and the Rise of the Knowledge Economy in 19th Century France (JMP)

Abstract: This paper exploits an episode of French history to study the relationship between the roll-out of railroads and the rise of the knowledge economy. Two substantial changes occurred during the second half of 19th century in France: the development of an extended rail network and the establishment of a new patent legislation. I take advantage of the exogenous variation in railway access arising from a time variant instrument, to document that access to rail network increases the innovation activity at the canton level. I explore two underlying mechanisms behind the main results. First, I introduce a market access framework based on inventor markers to study how the reduction in transportation costs, due to the expansion of rail and canal network, affects the patent activity of a global city of Paris is associated with the diffusion of novel technologies. Finally, I introduce a counterfactual scenario based on canals showing that in the absence of railroads French cantons would experience on average a 21.13% decline in the innovation rate.
• Rails and innovation: Evidence from China (with Deyun Yin, Ernest Miguelez and Rosina Moreno)

Abstract: In this paper, we explore the effect of the High-Speed Rail (HSR) network expansion in China on patent activity of cities, for the period 2008-2016. Using exogenous variation arising from a novel instrument, based on courier’s stations during Ming dynasty, we find solid evidence that the opening of a HSR station is associated with an increase in innovation activity of a city. We report evidence that this relationship exists not only in the large urban centers but also among third tier cities, more peripheral in the urban system of Chinese cities. Among the several reasons why HSR inter-city connectivity increases city innovation, we explore the role of inter-city technology diffusion. In particular, we compute least cost paths based on the speed of each HSR line and we document that an increase in a city’s connectivity to other cities that are specialized in a specific technology increases the probability of the city to specialize in the same technology, which we interpret as evidence of knowledge diffusion. This is also confirmed from gravity regressions: we find that the expansion of HSR network enhances cross-city co-patents and the geographical mobility of inventors.

• Railways (and Roadways) to Trust (with, Anastasia Litina)

Abstract: Our research empirically explores the interplay between the level of infrastructure and inter-personal and political trust. We exploit cross regional variation during the period 1990-2016 in four main types of infrastructure, i.e., railways, electrified railways, motorways and other roads. Our results suggest that the extend of each network has a positive and statistically significant effect on interpersonal and political trust. Relying on an expanding literature we hypothesize that this effect operates directly via the degree of exposure to new people and ideas, as well as indirectly, via the effect of infrastructure on the structure of the economy.

• Innovation and Income Inequality: World Evidence (with, Nikos Benos), MPRA Paper No. 92050

Abstract: In this paper we explore the effect of innovation on income inequality using annual country panel data for 29 countries. We demonstrate that innovation activities reduce personal income inequality by matching patents from the European Patent Office with their inventors. Our findings are supported by instrumental variable estimations to tackle endogeneity. The results are also robust with respect to various inequality measures, alternative quality indexes of innovation, truncation bias, the use of patent applications together with granted patents and different ways to split or allocate patents.

Media coverage: ITIF (information technology & innovation foundation), link

SEMINARS AND CONFERENCES:

upcoming
6th Summer School on Data & Algorithms for ST&I studies (organized by Aristotle University and KU Leuven), F4T Seminar Series (organized by Bocconi University), PhD-EVS, 15th North American Meeting of the Urban Economics Association (organized by University of Arizona), DRUID21 (organized by Copenhagen Business School), IP and Innovation Virtual Seminar and Applied Young Economist Webinar (organized by Monash Business School and Warwick University)
2021
11th ifo Dresden Workshop on Regional Economics, EPIIP Conference, Young Economist Symposium, (sponsored by Columbia, NYU, UPenn, Princeton and Yale), 9th summer school on “Knowledge Dynamics, Industrial Evolution, Economic Development” (KID2021) (University of Cote d’Azur), 34th ERSA Summer School (University of Groningen, Online), XXIII Applied Economics Meeting (University of Valencia, Online), Economic Geography Seminar (University of Utrecht, Online), 10th European Meeting of the Urban Economics Association (Copenhagen Business School, Online), Economic History Seminars (Paris School of Economics, Online)
2020
8th International PhD Workshop in Economics of Innovation, Complexity and Knowledge (University of Turin, Online), 5th Summer school on Data and Algorithms for ST&I studies (KU Leuven, Online), Virtual Meeting of the Urban Economics Association (Online), 13th RGS Doctoral Conference in Economics on "Regional Disparities and Economic Policy in Europe" (Technische Universitat Dortmund), 5th Geography of Innovation Conference (University of Stavanger), 7th Workshop in Economics of Innovation, Complexity and Knowledge (University of Turin)
2019
18th Conference on Research on "Economic Theory and Econometrics" (University of Athens), 4th Summer School in Advanced Economics on "Econometric Methods to Estimate Causal Effects", provided by Sascha O. Becker (University of Ioannina)
2018
4th International Conference on Applied Theory, Macro and Empirical Finance (University of Macedonia)

PROFESSIONAL EXPERIENCE:

TEACHING:
Teaching Assistant, Department of Econometrics, University of Barcelona:
• Econometrics for International Business, Spring 2020
• Teaching Assistant (University of Ioannina), Fall 2017

REFEREETING:
Research Policy

OTHER:
Coordinator of the AQR-IREA Ph.D. student seminar series for the academic year 2020-2021. Selected presentations: Link1, link2, link3.

FELLOWSHIPS AND AWARDS:
2019 -
FII: Catalan Government (Generalitat de Catalunya)
Present
Catalan Government and co-Financed with the European Social Fund. Link
2021
SEBAP mobility grant to visit Utrecht University (Amics del Pais), Prize: 4,200€ link
Media coverage: link
2021
Accesit Young Researcher ALdE Award 2021 for the paper entitled “Transportation Networks and the Rise of the Knowledge Economy in 19th Century France” presented at the XXIII Applied Economics Meeting, prize 500€ link
Media coverage: link

OTHER INFORMATION:
Programming: Stata, GGIS, R (EconGeo package, simple web scraping and text mining.), LATEX, LyX
Languages: English (fluent), Greek (Native)
Other interests: Chess. link. tied in the 6th place at the National Greek School Championship, 2007 link