

# Oriol Vallès Codina

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## Education

- 2020      **New School for Social Research**, New York, NY  
Ph.D. Candidate, Economics (MPhil, 2018)  
Dissertation: “Economic Production as Life: A Classical Approach to Computational Social Science”  
Dissertation Committee: Anwar Shaikh, Duncan Foley, Willi Semmler
- 2014      **Columbia University**, New York, NY  
MA, Anthropology
- 2011      **Universitat Pompeu Fabra**, Barcelona, Spain  
MSc, Bioinformatics
- 2009      **Universitat Autònoma**, Barcelona, Spain  
BSc, Physics

## Dissertation Abstract

My research explores the complex and dynamic evolution of the social division of labor from a spatial and temporal perspective, employing computational methods to cover topics in economic dynamics and multi-sectorial growth, technological change and innovation, ecological economics, and the political economy of austerity, crisis, regional inequality, and populism. The first theoretical chapter provides an original approach to the classic problem of the dynamic convergence of a competitive economy to equilibrium in the form of a multi-sectorial growth model that is disaggregated by firms under alternative micro-foundations along classical and evolutionary lines. The model does not presume equilibrium in prices and quantities as an achieved end result, but rather shows how firms equalize supply and demand over time through the systematic operation of economic competition. The model produces a variety of familiar economic patterns: price dispersion around the competitive value, tent-shaped distributions of profit and growth rates consistent with the empirical evidence, cost-plus markup pricing, downward-sloping demand curves, and industry-level business cycles in prices and inventories. The second policy-oriented chapter studies how much time national economies have to implement the structural transition from carbon to renewable energy. It evaluates the constraints their production structures impose on the speed of de-carbonization. Using empirical data, I simulate an extension of the Flaschel-Semmler model of multi-sectorial growth under technical change. I find that empirically driven, revenue-neutral, targeted fiscal policy can greatly accelerate the Green Transition up to a threshold where any increase in the tax rate has no effect. My third chapter empirically addresses persistent regional inequality, core-periphery polarization, and the rise of populism under austerity within the Eurozone, drawing on Kalecki, Polanyi, and the classical theory of international trade. There I contribute an econometric model based on machine-learning techniques to detect macro-regional clusters in Eurostat data as spatial patterns of the European division of labor.

## Research Interests

Multi-Sectorial Growth and Economic Dynamics	Computational Methods
Technical Change and Innovation	Neoclassical and Classical Microeconomics
Complexity Economics	Political Economy of Crisis, Austerity, and Populism

## Teaching Interests

Microeconomics	Computational Methods
History of Economic Thought	Crisis in the Eurozone
Mathematics for Economics	Econometrics

## Awards and Scholarships

New School for Social Research Dean's Merit Scholarship, 2014-2016  
La Caixa Foundation Fellowship for Graduate Study (New York), 2011 – 2013  
FARO Global Fellowship (Berlin), March – October 2009  
Erasmus Fellowship (Heidelberg), October 2007 – July 2008

## Publications

### Peer-Reviewed Articles

- 2020 Vallès Codina, O. "Classical-Evolutionary Dynamics of Price Formation". *Oeconomia*. Special Issue: "From thought experiments to Agent Based Models and calibration. Reflecting (on) the many facets of simulations in economics" (forthcoming)
- 2015 Hartasánchez, D. A., Brasó-Vives, M., Fuentes-Díaz, J., Vallès Codina, O., & Navarro, A.). "SeDuS: segmental duplication simulator". *Bioinformatics*, 32(1), 148-150.
- 2014 Hartasánchez, D. A., Vallès Codina, O., Brasó-Vives, M., & Navarro, A. "Interplay of Interlocus Gene Conversion and Crossover in the Molecular Evolution of Segmentally Duplicated Sequences: the Neutral Scenario". *PLoS ONE*
- 2009 Vallès Codina, O., Möbius, R., Rüdiger, S., & Schimansky-Geier, L. (2011). "Traveling echo waves in an array of excitable elements with time-delayed coupling". *Physical Review E*, 83(3), 036209

### Working Papers

- 2020 Vallès Codina, O. "Classical-Evolutionary Dynamics of Price Formation". Working Paper. New School for Social Research, Department of Economics (forthcoming)

## Conferences/Workshop Presentations

- 2019 "Classical-Evolutionary Dynamics of Price Formation" *Oeconomia*, Paris, France
- 2019 "Classical-Evolutionary Dynamics of Price Formation" Eastern Economic Association Conference, New York, US
- 2018 "The Perils Anew of Peripheralization for Italy and Its Regions", Italian Studies Seminar, Columbia University, NY, US
- 2018 "Real Competition under Technical Change" History of Economics Society Annual Conference, Chicago, US
- 2017 "Economic Production as Life" Festival for New Economic Thinking, INET YSI, Edinburgh, UK
- 2017 "The Perils Anew of Peripheralization for Italy and Its Regions" Capitalist Development in Hostile Environments Conference, Calabria, Italy

## Teaching Experience

- 2019, 2018, 2016    **Graduate Teaching Fellow (Instructor of Note)**  
Lang College, The New School, New York, NY  
Course: Origins of the Crisis in the Eurozone  
Complete responsibility for the course, syllabus design, learning goals, assessments, and managed online platform for group discussion
- 2018, 2017, 2016    **Teaching Assistant**  
Lang College, The New School, New York, NY  
Course: Introduction to Political Economy
- 2016    **Graduate Teaching Assistant**  
New School for Social Research, New York, NY  
Course: Historical Foundations of Political Economy

## Research Experience

- 2018    **Research Assistant**  
City University of New York, New York, NY  
Professor Michael Blim  
• Applied Bayesian econometric analysis to identify data clusters in Eurostat data
- 2017-2018    **Research Assistant**  
New School for Social Research, New York, NY  
Professor Paulo dos Santos  
• Produced computer simulations of competitive price-setting firms in a classical circuit-of-capital framework
- 2017    **Research Assistant**
- 2015-2016    New School for Social Research, New York, NY  
Dean William Milberg  
• Parsed data from OECD, WIOD and Compustat databases; performed data analysis.  
• Performed data analysis and data visualization on R software for presentations and conferences
- 2014    **Research Assistant**  
Institute for the Study of the Ancient World, New York University, NY  
Professor Roderick B. Campbell  
• Managed databases; performed data analysis on R software.
- 2010-2011    **Research Assistant**  
Barcelona Biomedical Research Park, Barcelona, Spain  
Principal Investigator Arcadi Navarro  
• Programmed computer simulations of genetic populations; analyzed data.
- 2009    **Research Assistant**  
Department of Physics, Humboldt University, Berlin, Germany  
Professor Lutz Schimansky-Geier  
• Programmed computer simulations of neural networks; analyzed data.

## **Additional Training**

2019            Oxford Summer School in Economic Networks, Oxford, UK  
2018            School of Advanced Studies in the Reappraisal of the Surplus Approach, Roma  
                    Tre University, Rome, Italy

## **Skills**

*Languages* Spanish (native), Catalan (native), English (fluent), Italian (fluent), German (intermediate)

*Computer Languages* R, Stan C, C++, knitr, PERL, LATEX, HTML, PHP

*Technical Proficiencies* R, MS Office, Linux, Matlab, Octave, Origin, Adobe Photoshop

## **References**

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