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Decreto Rettore Università di Roma “La Sapienza” n. 3227/2021 del 02.12.2021

## MARCO LETTA Curriculum Vitae

Place: Rome

Date: 26/01/2022

### Part I – Education

Type	Year	Institution	Notes (Degree, Experience,...)
B.Sc. graduation	2012	Sapienza University of Rome	B.Sc. in Political Science and International Relations. Final mark: 110/110 cum laude.
M.Sc. graduation	2014	Sapienza University of Rome	M.Sc. in International Relations. Final mark: 110/110 cum laude.
Erasmus Visiting PhD Candidate	2015- 2016	University of Sussex	Department of Economics
PhD	2018	Sapienza University of Rome	PhD in Economics and Finance, PhD School of Economics. Thesis: “Essays on weather, climate and development”.

### Part II – Appointments

IIA – Academic Appointments

Start	End	Institution	Position
07/2019	ongoing	Sapienza University of Rome	Assistant Professor of Economics (RTD-A, SECS-P/01), Department of Social Sciences and Economics
12/2017	12/2018	Sapienza University of Rome	Research fellow, Department of Social Sciences and Economics

### Part III – Teaching experience

Year	Institution	Lecture/Course
Fall 2021	Sapienza University of Rome	Introduction to economics and economic policy (jointly with Luca Zamparelli) – undergraduate level
Summer 2021	University of Rome Tor Vergata	Lecturer in the Summer School “Impact Evaluation of Development Policies: Concepts, Methods, Applications”
Spring 2021	Sapienza University of Rome	PhD Course in Quantitative Methods for Development Policies

Spring 2021	Sapienza University of Rome	Introduction to economics and economic policy (jointly with Joanna Kopinska) – undergraduate level
Spring 2021	Sapienza University of Rome	Lecturer, Master in “Migration and Development”
Spring 2021	Sapienza University of Rome	Machine learning methods for economists – master level
Fall 2020	Sapienza University of Rome	Introduction to economics and economic policy (jointly with Luca Zamparelli) - – undergraduate level
Fall 2020	Sapienza University of Rome	PhD Course in Quantitative Methods for Development Policies
Summer 2020	University of Rome Tor Vergata	Lecturer in the Summer School “Impact Evaluation of Development Policies: Concepts, Methods, Applications”
Spring 2020	Sapienza University of Rome	Lecturer, Master in “Migration and Development”

#### Part IV - Society memberships, Awards and Honors

Year	Title
From 11/2020	Global Labor Organization (GLO) Fellow
2014-2017	Winner of PhD Scholarship, Sapienza University of Rome
2014	“ <i>Laureato d’Eccellenza</i> ” (Best Graduate Award), Sapienza University of Rome

#### Part V - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
2020	Co-Investigator. “Does positioning along the market chain affect smallholder households' exposure to external shocks?”	RICERCHE DI ATENEO – PROGETTI DI RICERCA PICCOLI – SAPIENZA UNIVERSITÀ DI ROMA	3,000 EUR
2019	Co-Investigator. “Climate Change, Weather Risks And Migration: Exploring The Causal Links; The Short-Run And Long-Run Dynamics And Fostering Current Vulnerability And Resilience Assessments”	RICERCHE DI ATENEO – PROGETTI DI RICERCA MEDI – SAPIENZA UNIVERSITÀ DI ROMA	12,000 EUR

## Part VI – Current research activities

My main research fields are development economics, policy evaluation, applied econometrics and machine learning. My research mostly concerns the impact evaluation of covariate shocks, development policies, and large-scale programs on several socioeconomic outcomes. From a methodological perspective, my current research activities focus on the elaboration and application of causal machine learning techniques.

Keywords	Selected Projects
Theory-based vs. data-driven targeting of poverty and food insecurity	This project deals with a comparative empirical analysis of the validity and accuracy theory-based vulnerability measures vs. data-driven food insecurity prediction in informing the policy targeting of development interventions aimed at identifying vulnerability pockets and food insecurity hotspots in developing contexts. Micro-level household data from the World Bank are combined with state-of-the-art econometric techniques and the unique setting provided by the COVID-19 shock to explore these research questions and provide a set of actionable policy recommendations in view of future shocks.
Causal machine learning, COVID-19, counterfactual analysis	The purpose of this project is to exploit machine learning techniques for counterfactual building rather than for predictive purposes. This novel approach allows studying the causal impact of unexpected shocks or policies which affect all units, and retrieve unit-level time-varying treatment effects in this peculiar econometric scenario. We apply the so-called Machine Learning Control Method to study the demographic and economic effects of COVID-19 across the Italian territory, and explore its heterogeneous spatial patterns as well as its main predictors.
Microdata for the analysis of climate change and migration	The empirical evidence on the causal relationship between climate change and migration does not provide clear-cut conclusions, mainly due to the intrinsic complexity of the phenomena, the heterogeneity of the transmission mechanisms, and, in particular, the lack of appropriate data. We first summarize the findings of the most recent literature and identify the main insights as well as the most important channels. Then, we discuss open issues and assess the main data gaps that currently prevent more robust quantifications. Finally, we highlight opportunities for exploring these research questions using the existing World Bank LSMS-ISA datasets and discuss potential improvements to integrate the LSMS-ISA multi-topic surveys with additional modules and external data.

## Part VII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international: peer reviewed + WP]	14	Google Scholar	2018	2022
Papers [national]	1	Google Scholar	2018	2018
Chapters in books [scientific] [national]	1	Google Scholar	2021	2021

Number of Class A publications (Anvur/CUN only for the S.C. 13/A2)	8
Total Citations (Google Scholar, 26/01/2022)	116
Average Citations per Product	$116/14 = 8,29/\text{product}$
Hirsch (H) index (Google Scholar, 26/01/2022)	5
Normalized H index*	$5/(2022-2018) = 1,25$

\*H index divided by the academic seniority.

### Part VIII – Selected Publications

- 1) Garbero, A., & Letta, M. 2022. Predicting household resilience with machine learning: preliminary cross-country tests. *Empirical Economics*, forthcoming. <https://doi.org/10.1007/s00181-022-02199-4>. IF: 1.713, Citations: 0, pubblicazione di classe A ANVUR per il settore concorsuale 13/A2.
- 2) Cerqua, A. & Letta, M. 2022. Local inequalities of the COVID-19 crisis. *Regional Science and Urban Economics*, Vol.92, 103752. IF: 2.613, Citations: 9, pubblicazione di classe A ANVUR per il settore concorsuale 13/A2.
- 3) Letta, M. & Montalbano, P. & Pierre, G. 2021. Weather shocks, traders' expectations, and food prices. *American Journal of Agricultural Economics*, 1-20. IF: 4.082, Citations: 0, pubblicazione di classe A ANVUR per il settore concorsuale 13/A2.
- 4) Cerqua, A. & Di Stefano, R. & Letta, M. & Miccoli, S. 2021. Local mortality estimates during the COVID-19 pandemic in Italy. *Journal of Population Economics*, 34, 1189-1217. IF: 2.813, Citations: 4, pubblicazione di classe A ANVUR per il settore concorsuale 13/A2.
- 5) Cerqua, A., Di Stefano, R., Letta, M., & Miccoli, S. 2021. Was there a COVID-19 harvesting effect in Northern Italy? In: Bernini, C., Emili, S., *Regions between challenges and unexpected opportunities*, ISBN 9788835125860. Citations: 0.
- 6) d'Errico, M. & Garbero, A. & Letta, M. & Winters, P. 2020. Evaluating program impact on resilience: evidence from Lesotho's Child Grant Programme. *Journal of Development Studies*. Vol. 56:12, 2212-2234. IF: 2.210, Citations: 7, pubblicazione di classe A ANVUR per il settore concorsuale 13/A2.
- 7) d'Errico, M. & Letta, M. & Montalbano, P. & Pietrelli, R. 2019. Resilience thresholds to temperature anomalies: a long-run test for rural Tanzania. *Ecological Economics*, Vol.164 (October 2019), 106365. IF: 5.389, Citations: 4, pubblicazione di classe A ANVUR per il settore concorsuale 13/A2.

- 8) Letta, M. & Tol, R.S.J. 2019. Weather, climate and total factor productivity. *Environmental and Resource Economics*, 73(1), 283-305. IF: 2.181, Citations: 60, pubblicazione di classe A ANVUR per il settore concorsuale 13/A2.
- 9) Coromaldi, M., Garbero, A., & Letta, M. 2019. Recovering the counterfactual as part of ex-ante impact assessments: an application to the PASIDP-II project in Ethiopia. *Economics Bulletin*, 39(3), 1844-1854. IF: 0.534. Citations: 0.
- 10) Letta, M. & Magrini, E. & Montalbano, P. 2019. Spatial heterogeneity in price (dis)incentives: evidence from the Ugandan maize value chain. *Economics Bulletin*, 39(1), A49, 495-501. IF: 0.534. Citations: 0.
- 11) Colaizzo, R. & Letta, M. & Montalbano, P. 2018. L'efficacia delle politiche di valorizzazione culturale in Puglia. Analisi fattuale e controfattuale sull'attrazione turistica. *Economia della Cultura*, Vol. 4(2018), 491-508. ISSN: 1122-7885. Citations: 1.
- 12) Letta, M. & Montalbano, P. & Tol, R.S.J. 2018. Temperature shocks, short-term growth and poverty thresholds: evidence from rural Tanzania. *World Development*, 112, pp. 13-32. IF: 5.278, Citations: 26, pubblicazione di classe A ANVUR per il settore concorsuale 13/A2.

#### **Part IX – Other Publications**

- 1) Cerqua, A., Ferrante, C., & Letta, M. (2021). Electoral earthquake: natural disasters and the geography of discontent. *GLO Discussion Paper*, No.790.
- 2) de Blasio, G., & D'Ignazio, A., & Letta, M. Predicting corruption crimes with machine learning. A study for the Italian municipalities. *Disse Sapienza Working Papers Series*, No.16/2019.

#### **Part X – Conference presentations**

Oct 2021	European Commission, invited seminar
Sep 2021	Italian Regional Science Association (AISRe), annual conference
Sep 2021	European Association of Labor Economists (EALE), annual conference
Jul 2021	FAO, internal seminar
Jun 2021	COMPIE, annual conference
Sep 2020	Italian Regional Science Association (AISRe), annual conference
Dec 2019	Department of Social Sciences and Economics (DiSSE), III Scientific Meeting

Nov 2019 University of Lille, invited seminar  
Sep 2019 University of Bari-Aldo Moro, “Economics of Global Interactions” annual conference  
Mar 2019 Sapienza University of Rome, invited seminar  
Feb 2019 University of Udine, 7<sup>th</sup> IAERE annual conference  
Sep 2018 Tor Vergata University, EMCC-III annual conference  
Dec 2017 University of Roma Tre, 1<sup>st</sup> Meeting of the GDS17  
Jun 2017 Bank of Italy, invited seminar  
Mar 2016 University of Sussex, internal seminar

### **Part XI – Referee assignments**

European Economic Review; Nature Climate Change; Journal of Environmental Economics and Management; Journal of Population Economics; Energy Economics; Food Policy; Ecological Economics; Plos ONE; Environmental and Resource Economics; Cambridge Journal of Regions, Economy and Society; Environment and Development Economics; International Review of Finance; Environment, Development and Sustainability; Economics Bulletin; Socio-Economic Planning Sciences; Annals of Public and Cooperative Economics; Journal of Public Finance and Public Choice; International Journal of Computational Economics and Econometrics.

### **Part XII – Computer Skills**

- MS Office: Advanced
- STATA: Advanced
- R: Advanced
- ArcGIS: Advanced
- LATEX: Advanced

Roma, 26-01-2022

Marco Letta

