

**SELECTION OF ONE PROFESSOR (PROFESSORE ORDINARIO), FOR THE ACADEMIC RECRUITMENT FIELD 13/A1 POLITICAL ECONOMY – ACADEMIC DISCIPLINE SECS-P/01 POLITICAL ECONOMY (SETTORE CONCORSUALE 13/A1 ECONOMIA POLITICA – SETTORE SCIENTIFICO DISCIPLINARE SECS-P/01 ECONOMIA POLITICA) AT THE INSTITUTE OF ECONOMICS - ACADEMIC CLASS OF SOCIAL SCIENCES, RESERVED, PURSUANT TO ART. 24, SUBSECTION 6, OF ITALIAN LAW 240/2010, FOR ASSOCIATE PROFESSORS AND RESEARCHERS EMPLOYED AT THE SCHOOL, ISSUED BY RECTOR DECREE NO. 479 DATED 17/07/2019.**

### **FINAL REPORT**

The Committee for the selection of one professor (level 1) for the academic recruitment field 13/A1 Political Economy – Academic Discipline SECS-P/01 Political Economy at the Institute of Economics of the Scuola Superiore di Studi Universitari e di Perfezionamento Sant'Anna di Pisa reserved for associate professors and researchers employed at the School to be selected pursuant to art. 24, subsection 6 of the Italian law 240/2010, nominated by the Rector by decree No. 479 dated 17/07/2019, consists of:

- Prof. Ennio Bilancini, Full Professor of Political Economy (field 13/A1) at IMT - Lucca;
- Prof. Uwe Cantner, Full Professor at the Friedrich Schiller University, Jena;
- Prof. Domenico Delli Gatti, Professor of Political Economy (field 13/A1) at Università Cattolica del Sacro Cuore of Milan, designated Expert by the Institute of Economics;
- Prof. Giulia Iori, Full Professor at City, University of London;
- Prof. Mauro Pianta, Full Professor of Group of Academic Recruitment Fields Economic Policy (field 13/A2) at Scuola Normale Superiore of Florence;
- Prof. Fabio Recchia, Full Professor Physiology (field 05/D1) at Scuola Superiore Sant'Anna, Member of the Recruitment Committee.

The committee convened on November 18, 2019, at 19:00, via Skype as authorized by the Rector, from the following locations:

Prof. Bilancini located in Lucca

Prof. Cantner located in Jena

Prof. Delli Gatti located in Milan

Prof. Iori located in London, home address

Prof. Pianta located in Rome, home address

Prof. Recchia located in Philadelphia

The Committee held a total of two meetings, began its work on October, 21, 2019 and concluded it on November 18, 2019. In the preliminary meeting, the Committee nominated the President and Secretary.

The Committee asked the Rector to postpone the deadline of its work and the Rector (by decree n.682/2019 dated October, 25, 2019) authorized the Committee to conclude its work by January, 17, 2020.

It was noted in the minutes that each member had declared that they had no kinship or affinity up to the fourth degree included, either with each other or with the candidate: Prof. Andrea Roventini.

The Committee established the criteria for the assessment of the candidate.

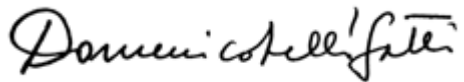
In the second meeting the Committee examined the publications, the CV and the didactic activity of the candidate, and after a comprehensive discussion, by unanimity declared the following candidate to have won the position:

Prof. Andrea Roventini

The session closed at 20:00. Read, approved and signed.

THE COMMITTEE

Prof. Domenico Delli Gatti (Chairperson)

A handwritten signature in black ink, reading "Domenico Delli Gatti". The signature is written in a cursive style with a prominent initial 'D'.

## **ANNEX 1 – MINUTES OF THE SECOND MEETING INDIVIDUAL ASSESSMENTS**

**CANDIDATE: ANDREA ROVENTINI**

**ENNIO BILANCINI**  
See attachment (a)

**UWE CANTNER**  
See attachment (b)

**GIULIA IORI**  
See attachment (c)

**MARIO PIANTA**  
See attachment (d)

**DOMENICO DELLI GATTI**

Andrea Roventini got his PhD from the S. Anna School of Advanced Studies in 2005. He has been assistant professor at the university of Verona and at EconomiX, University of Paris Ouest Nanterre and has got the position of associate professor at the S. Anna School in 2014.

His research agenda focuses on growth, business cycles and crises in Agent-based computational economics. Within this broad area of research he has contributed to the theory and the empirical assessment of innovation and structural change; climate change; fiscal, monetary and climate-change policies. In this field he has already got the reputation of one of the most brilliant young pioneer.

The record of Roventini' s publications is truly impressive. His papers have been published in top journals (for instance Journal of Evolutionary Economics, Journal of Economic Dynamics & Control, Macroeconomic Dynamics Journal of Economic Behavior and Organization, Industrial and Corporate Change).

The overall quality of the research work is very high. It shows a well balanced combination of reasonable assumptions (mostly driven by empirical evidence instead of optimizing micro-foundations), sophisticated computational techniques and econometric analysis.

What is more important, in my opinion his line of research is truly innovative and can make a difference for the profession's strategies of research in the near future. Research in the area of agent based computational economics in fact is growing rapidly. This is a literature to which Roventini has already contributed and can contribute even more in the future.

I have also been impressed by his ability at building and keeping academic networks, discuss and promote knowledge transfer among people and institutions. He has been and is a key member of a number of international research projects (most of them funded by the European Commission). He is excellent in terms of dedication to strengthening the reputation of the institution to which he is affiliated.

Finally, he has a remarkable teaching record at any level of the university education. For all these reasons, therefore, Roventini fully deserves the position of full professor.

**FABIO RECCHIA**

Prof. Recchia, who does not belong to the academic recruitment field 13/A1 states that the qualities of the candidate are fully consistent with the criteria of excellence set by the Scuola Superiore S. Anna.

Ennio Bilancini

Assessment of Andrea Roventini' s research, teaching and service achievements

Andrea Roventini got the PhD in economics from the S. Anna School for Advanced Studies in 2005.

Andrea has been assistant professor at the university of Verona and at EconomiX, University of Paris Ouest Nanterre. Andrea has got the position of associate professor at the S. Anna School in 2014.

Andrea's main contributions are on the theory of growth, business cycles and crises, mostly developed in an Agent-based framework. Also, he has provided interesting applications in the areas of environmental and resource economics, finance and applied statistics.

Overall, Andrea's research is both original and ambitious, following a route characterized by high risks and high potential in terms of both publication success and scientific impact. Evidence of this is found in his publication record where there are good and very good economics and interdisciplinary journals (Computational Economics, Ecological Economics, Industrial and Corporate Change, Journal of Applied Econometrics, Journal of Economic Behaviour and Organization, Journal of Evolutionary Economics, Journal of Economic Dynamics and Control).

It is worth to mention the international recognition of Andrea's contribution in the area of agent based modeling for economics, for which he got a substantial number of citations with an increasing trend.

Finally, Andrea has a very good teaching record, demonstrating to have accumulated substantial experience at both undergraduate and graduate levels.

For all these reasons, Andrea Roventini appears to me suitable for the position of full professor.



**FRIEDRICH-SCHILLER-  
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Sprechzeiten: nach Vereinbarung

## **To whom it may concern**

Jena, 17. November 2019

## **Assessment of the research, teaching and service performance of Andrea Roventini**

Andrea Roventini, after he got awarded his PhD from Scuola S. Anna in Pisa in 2005, held assistant professor positions at Verona University and at the University of Paris Ouest Nanterre. In 2014 he accepted the offer of a position as associate professor at the Scuola S. Anna.

Andrea Roventini's research addresses topics in economic growth, business cycles and crises. His main tool of analysis is agent-based computational modelling – an area in which he excelled and is a known expert worldwide. Brilliant analyses to the theory and the empirics of innovation and structural change, of climate change and related policies as well as in general policy modelling characterize his work. Sophisticated computational techniques and econometric analysis are well combined in an analytical setting that is much evidence-based and oriented towards out-of-equilibrium dynamics.

The overall quality of his work and papers in these fields is very high. This is also evidenced by his publication record. His papers have been published in internationally refereed top journals; the list of journals is impressive and includes e.g. Journal of Evolutionary Economics, Journal of Economic Dynamics & Control, Macroeconomic Dynamics Journal of Economic Behavior and Organization, and Industrial and Corporate Change.

Based on this superb performance it has become obvious that Andrea Roventini is already now very much contributing to strategies pushing forward economics in generally and dynamic economic modelling in particular.

This all had not been possible without Andrea Roventini's ability to organize and engage scientific circles and networks. Most prominently he has been in a core function in the EASYGROWTH consortium funded by the European Union.



Besides his research activities, Andrea Roventini offers service to the scientific community via his function as (advisory) editor of the Journal of Evolutionary Economics (JEEC). Via this position he is doing a marvelous job by selecting proper papers for publication, by initiating special issues by topic and contributors, and by engaging in the strategy of the JEEC.

Last not least, Andrea Roventini shows an already well-developed teaching record at the student as well the doctoral level. This round up nicely his impressive oeuvre as a complete senior researcher

To sum up, I am happy to conclude forcefully and without any hesitations that Andrea Roventini fully deserves the position of full professor.

A handwritten signature in black ink, appearing to read 'Uwe Cantner'.

Jena, November 17, 2019

Prof. Dr. Uwe Cantner



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London, 18/11/2019

**Re: Assessment of Andrea Roventini's research, teaching and service achievements**

Andrea Roventini has obtained his PhD from the S. Anna School of Advanced Studies, has been Maitre de Conferences at EconomiX, University of Paris Ouest Nanterre, Assistant Professor at the University of Verona, and Associate Professor at the S. Anna School since 2014.

Roventini's research spans across several areas including growth, financial crisis, fiscal and monetary policy, technological change and, more recently, climate change policy. The methodological approach he uses, i.e. agent based computational models, is the linking factor in his work. This approach is fast growing in popularity and Roventini is one of the strongest researcher who has contributed to its further diffusion and success. Roventini has contributed extensively to the literature in this area, he has a very good publication records, including a number of papers in highly ranked economic journals, and his work is well cited.

Roventini has delivered a number of plenary lectures at international conferences and regularly engages with policy makers. He has a strong network of international collaborators and has been involved in several projects funded by the European Commission, including as the PI and consortium coordinator for the H2020 project GROWINPRO.

Roventini has teaching experience at all levels, including supervising to completion 5 Master and 2 PhD students. He has been invited to deliver lectures at summer schools in Brazil and Chile.

For all these considerations, I believe Andrea Roventini fully deserves the position of Full Professor.

Professor Giulia Iori

Mario Pianta

Assessment of Andrea Roventini' s research, teaching and service achievements

Andrea Roventini has obtained his PhD from the S. Anna School of Advanced Studies, has been assistant professor at the university of Verona and at EconomiX, University of Paris Ouest Nanterre and has become associate professor at the S.Anna School in 2014.

He has worked on several areas with original research approaches and methods, on topics that include growth, business cycles, economic policy, technological change, climate change. In many works he has developed Agent-based models applied to the above themes, providing important contributions to the economic literature.

He has a remarkable publication record with a large number of papers published in highly relevant scientific journals, with a good citation record. I consider the quality of his research to be high, addressing relevant research questions, adopting appropriate methodologies and advanced techniques of analysis. He is at the forefront of agent-based modelling, opening up novel directions for economic research.

He has a strong teaching record, including supervision of PhD students.

He has been part of several international research projects, and is currently in charge of the Horizon 2020 project Growinpro. He has been active in dissemination efforts and in relevant economic policy discussions.

For all these considerations, I believe Andrea Roventini fully deserves the position of full professor.

A handwritten signature in blue ink, appearing to read 'M. Pianta', is located at the bottom left of the page.



## ANNEX 2 – MINUTES OF THE SECOND MEETING COLLECTIVE ASSESSMENT

Andrea Roventini got his PhD from the S. Anna School of Advanced Studies in 2005. He has been assistant professor at the university of Verona and at EconomiX, University of Paris Ouest Nanterre and has got the position of associate professor at the S. Anna School in 2014.

Roventini's teaching activity, at all levels of tertiary education, has been and is intense and broad in scope. As assistant professor (at the universities of Verona and Paris-Nanterre) he taught macroeconomics (undergraduate); international economics, innovation economics and monetary economics (at the Master level); consumption theory at the PhD level. As associate professor at the S. Anna School he has taught and teaches advanced macroeconomics (at the Master level) and agent-based macroeconomics at the PhD level. Moreover he gives "internal courses" for the students-residents of the School on monetary economics and climate change economics. He also acts as supervisor for dissertations at the Master and PhD levels. He has supervised the elaboration of three PhD dissertations. He has also given invited lectures and courses at three Universities in Brasil and Chile.

His research agenda focuses on macroeconomic dynamics in Agent-based computational economics. Within this broad area of research he has made important contributions to the theory and the empirical assessment of innovation and structural change; climate change; fiscal, monetary and climate-change policies.

In the field of agent based macroeconomics, Roventini is recognized as of one of the most brilliant young pioneers. Together with Giovanni Dosi and Giorgio Fagiolo, since the early 2000s (before the eruption of the Global Financial Crisis) he has developed the agent based framework that goes under the name of "Keynes meeting Schumpeter" model (KS) (see the Computational Economics paper published in 2006). This framework has become a workhorse for the community of agent-based modelers. Since the seminal paper published in the Journal of Economic Dynamics (JEDC) in 2010 (which has attracted 450 citations so far), Roventini has been a key contributor to a steady flow of papers that have extended, enriched and refined the framework and applied it to a number of hot topics in the macroeconomic debate, most of them on JEDC (2013, 2015, 2017).

Recently, Roventini has contributed to the KS framework augmented by an environmental block that has been used to provide one of the first agent-based assessments of the macroeconomic impact of climate change (Ecological Economics (2018)). Together with Lamperti and Sani, Roventini has initiated a very promising and pioneering line of research to guide the calibration of ABM parameters by means of machine-learning (JEDC (2018)). He has contributed also to the empirical literature on statistical properties of macroeconomic time series, especially from the perspective of the distribution of growth rates (see the paper on the Journal of Applied Econometrics in 2008, joint with Fagiolo and Napoletano, and the paper on Macroeconomic Dynamics in 2015, joint with Ascari and Fagiolo).

The record of Roventini's publications is impressive, both in terms of quantity and quality. Since 2006, he has published around 40 papers in high ranking journals that are qualified as A journals in the list of the Abilitazione Scientifica Nazionale (for example: Journal of Evolutionary Economics, Journal of Economic Dynamics & Control, Macroeconomic Dynamics Journal of Economic Behavior and Organization, Industrial and Corporate Change, Macroeconomic Dynamics, Ecological Economics). His research work is characterized by a balanced combination of reasonable assumptions (mostly driven by empirical evidence instead of optimizing micro-foundations), sophisticated computational techniques and econometric analysis. The bibliometric indicators routinely used to assess the impact and visibility of research show that Roventini is very well positioned in the profession, especially taking into consideration his relatively young age. Overall, his papers got almost 2400 citations. His h-index varies from 12 (ISI) to 24 (Google scholar). What is more important, his line of research is truly innovative and can make a difference for the profession's strategies of research in the area of agent based computational economics. Given his high reputation, Roventini has built a strong and growing academic network. He has been and is a key member of a number of international research projects (most of them funded by the European Commission). At present he is European coordinator of the EC funded Growinpro project.

For all these reasons we unanimously think that Roventini fully deserves the position of full professor.