

## Andrea Bacchiocchi, PhD

### *Curriculum Vitae*

June 2024

#### EDUCATION AND ACTUAL AFFILIATION

16 July 2022 – now	<b>Post-Doc Researcher (Assegno di Ricerca) – 3-year research contract co-financed by Banca Intesa Sanpaolo</b> Università degli Studi di Urbino Carlo Bo <i>Department:</i> Economics, Business and Political Science (DESP)  <i>Research program title:</i> Analysis of the relations between investment and methods of financing of SMEs
5 May 2023	<b>PhD degree - Global Studies. Economy, Society and Law. Curriculum in “International Economic Policy, Business and Governance”, XXXV cycle (2019-2020)</b> Università degli Studi di Urbino Carlo Bo <i>Department:</i> Economics, Business and Political Science (DESP)  <i>Grade:</i> Excellent <i>Research fields:</i> Monetary policy, Banking regulation, Economic Dynamics, Evolutionary Economics, Dynamical System and Game Theory <i>Dissertation title:</i> “Economics of Money and Banking: Non-linear Dynamic Models evolving as Adaptive Systems” <i>Supervisor:</i> G. Giombini <i>Co-supervisor:</i> G. I. Bischi
16 Oct. 2019	<b>MA degree - Economics and Management (LM-77)</b> Università degli Studi di Urbino Carlo Bo  <i>Grade:</i> 110 cum laude <i>Dissertation title:</i> “An evolutionary game to model offshoring and reshoring of production between developed and developing countries” <i>Advisor:</i> G. I. Bischi
19 Oct. 2017	<b>BA degree - Business Economics (L-18)</b> Università degli Studi di Urbino Carlo Bo  <i>Grade:</i> 110 cum laude <i>Dissertation title:</i> “Unconventional Monetary Policy during the Recent Financial Crisis” <i>Advisor:</i> G. Giombini
2014	<b>Diploma degree - Computer Science</b> I.T.I.S. E.Mattei Urbino – specialization I.T.  <i>Grade:</i> 100/100

#### RESEARCH EXPERIENCE AND PROJECT MEMBERSHIP

3 – 4 June 2024	<b>Member of the Organizing Committee for International Workshop Macroeconomic Green Dynamics, “Optimal Timing and Control to Eradicate Firms’ Polluting Activities: The Roles of Fiscal and Monetary Policies”, University of Urbino</b>
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	Invited keynote speakers: William A. Barnett (University of Kansas and Center for Financial Stability, NYC), Francesco Drudi (Principal Advisor at the Directorate General Monetary Policy, ECB).
<b>Nov. 2023 – May 2024</b>	<p><b>Member of the organizing and scientific committee of “10SEEDS AT UNIURB - LSYR” – Lunch seminar series for PhD and Post-Doc researchers</b></p> <p>Member of the organizing and scientific committee (with the selection of 5-6 papers) of the hybrid lunch seminar series “10SEEDS AT UNIURB – Lunch Seminars for Young Researchers (LSYR)”. It is an initiative of the young researchers of the DESP, University of Urbino, open to PhD students and Post Doc Researchers from all Universities and Research Centres to present their research on environmental economics topics. Link at: <a href="https://www.sustainability-seeds.org/index.php/tour-10seeds">https://www.sustainability-seeds.org/index.php/tour-10seeds</a></p>
<b>January – November 2023</b>	<p><b>Member of the working group “European Charter for Researchers” to realize the “Human Resources Strategy for Researchers” (HRS4R)</b></p> <p>The "European Charter for Researchers" Working Group was formed with the task of supporting the realization and implementation of the "Human Resources Strategy for Researchers" (HRS4R), aimed at the University of Urbino Carlo Bo's accreditation of the "HR Excellence in Research" label. The specific focus of my working group was: “Working Conditions and Social Security”</p>
<b>8 - 9 June 2023</b>	<p><b>Member of the Organizing Committee for “International Conference on Financial Fragility and Financial Education of Households and Firms”, University of Urbino</b></p> <p>Invited keynote speakers: A. Ferrando (ECB), A. Lusardi (Director of the Italian Financial Education Committee, George Washington University), R. Cole (Florida Atlantic University)</p>
<b>Nov. 2019 - present</b>	<p><b>PhD and Post-Doc Researcher - University of Urbino</b></p> <ul style="list-style-type: none"> <li>○ Assess the effects of the central bank's monet. policy on inflation, GDP dynamics</li> <li>○ Study market regulation and imperfections in the banking and financial systems</li> <li>○ Provide policy insights in evolutionary contexts characterized by repeated strategic interactions, information asymmetries, and bounded rationality</li> <li>○ Evaluate the main risk factors and activities bearers of financial stress to increase banks’ resilience to adverse shocks</li> </ul>
<b>Apr. - May 2022</b>	<p><b>PhD Visiting Researcher – University of Groningen</b></p> <ul style="list-style-type: none"> <li>○ Research on banking, lending and screening technologies</li> <li>○ Evaluate relationships between collateral, bank risk assessment, soft information</li> </ul>
<b>Nov. - Dec. 2021</b>	<p><b>PhD Visiting Researcher – New College of the Humanities, London</b></p> <ul style="list-style-type: none"> <li>○ Research on evolutionary game theory, CAPM and investment portfolio decisions</li> <li>○ Study greening monetary policy implemented by Central Banks, in particular ECB</li> <li>○ Analyze how the inclusion of an objective of environmental sustainability in the CB asset-purchasing programme could impact the cost of financing and borrowing for green and non-green firms</li> </ul>
<b>2022</b>	<p><b>Member of PRIN (positive evaluation but not financed)</b></p> <p>Project title: “The mismatch between demand and supply of knowledge in Italy: causes, consequences and policy solutions”, Italian Ministry of Education, Universities and Research (MIUR), associated investigator: F. Ferrante</p>

<b>2021</b>	<b>Member of PRIN (positive evaluation but not financed)</b> Project title: "Households and Firms during recessions: financial fragility and resilience", PRIN MIUR, associated investigators: G. Giombini, P. Esposito
<b>2021 - 2022</b>	<b>Member of the Urbino University research project funded by DESP</b> "Consumers and Firms: The Impact of the Pandemic on Financial Fragility and Overindebtedness", PRIN MIUR, scientific responsible: G. Giombini

## PUBLICATIONS

- Bacchiocchi, A., Giombini, G. (2021). "An Optimal Control Problem of Monetary Policy". *Discrete and Continuous Dynamical Systems Series-B*, 26(11), pp. 5769–5786. DOI: 10.3934/dcdsb.2021224.
- Bacchiocchi, A., Bischi, G. I., Giombini, G. (2022). "Non-Performing Loans, Expectations and Banking Stability: A Dynamic Model". *Chaos, Solitons & Fractals*, 157, 111906. DOI:10.1016/j.chaos.2022.111906.
- Bacchiocchi, A., Bischi, G. I. (2022). "An Evolutionary Game to Model Offshoring and Reshoring of Production Between Developed and Developing Countries". *International Journal of Applied Behavioral Economics (IJABE)*, 11(1), pp. 1-29. DOI: 10.4018/IJABE.302137.
- Bacchiocchi, A., Bellocchi, A., Bischi, G.I., Travaglini, G. (2023). "A Non-linear Model of Public Debt with Bonds and Money Finance". *Economia Politica (Journal of Analytical and Institutional Economic)*, pp. 1-42. DOI: 10.1007/s40888-023-00310-1.
- Bacchiocchi, A., Giombini, G., Ille, S. (2023). "The Effects of a Green Monetary Policy on Firms Financing Cost". *Journal of Economic Interaction and Coordination*. DOI: 10.1007/s11403-023-00400-0.
- Bacchiocchi, A., Bellocchi, A., Coveri, A. (2024). "Firms' Location Decisions, Supply Chain Disruptions and Government Subsidies: A Dynamic Game Model". *Economic Analysis and Policy*.
- Bacchiocchi, A., Bellocchi, A., Giombini, G. (2024). "Green Investment Challenges in European SMEs: Internal vs External Resources". *Sustainability*, 16 (2): 496. DOI: 10.3390/su16020496.

## WORK IN PROGRESS

- "Bank loans and Guarantees: Do Decisional Levels Matter?", with Calcagnini, G., Giombini, G., Sterken, E.
- "Balancing Interests: Economic Incentives in Financial Education for Households and Banks", with Favaretto, F., Giombini, G.
- "Greenflation, Climateflation and Monetary Policy: The Dynamics of Sustainable Transition" with Giombini, G., Favaretto, F., Tramontana, F.

## TEACHING ACTIVITY AND MENTORING EXPERIENCE

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| <b>7 May 2024</b> | <b>Lecturer in the "Third Mission" Project entitled "Percorso di Educazione Finanziaria per le PMI del territorio", Banca di Pesaro BCC - 2 hours</b> |
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	Title of the lecture: "Analisi di mercato e analisi settoriale", related to the Marche region and addressed to local PMI owners and managers, and bank employees.
<b>February – Sept. 2024 (Second term)</b>	<p><b>Adjunct/Contract Professor of the BA L-18 course "Monetary Economics" SECS-P/02, University of Urbino, Fano Campus - 48 hours (8 CFU)</b></p> <p>Topics of the course: I. The nature and functions of currency. II. The demand and supply theories of money. III. Theory and practice of the ECB's monetary policy. IV. The origins and management of economic crises. V. Digital innovations. Link at: <a href="https://www.uniurb.it/insegnamenti-e-programmi/264745">https://www.uniurb.it/insegnamenti-e-programmi/264745</a></p>
<b>October 2023</b>	<p><b>Lectures "Introduction to Economics" at the PhD Global Studies. Economy, Society and Law. Curriculum in "International Economic Policy, Business and Governance", XXXIX cycle (2023-2024), University of Urbino - 12 hours</b></p> <p>Topics of the lectures: I. The Firm and its goals; Profit maximisation. II. Market structures; The competitive model; Market power III. Gross Domestic Product; Unemployment; Inflation IV. Economic growth; Inequality.</p>
<b>30, 31 March, 7 April 2022</b>	<p><b>Cycle of seminars in the MA LM-77 course "Economics of Financial Markets" SECS-P/02, University of Urbino - intuitu personae contract – 6 hours</b></p> <p>Cycle of seminars: I. The CAPM model: assumptions and criticisms. II. Sharpe index and portfolio efficiency. III. Financial theory of portfolio choices, in the MA course of "Economics of Financial Markets" held by G. Travaglini.</p>
<b>Oct. 2021 – Nov. 2021</b>	<p><b>Teaching Assistant in the BA L-18 course "Macroeconomics" SECS-P/01, University of Urbino – 12 hours</b></p> <p>Teaching assistant in the BA course of "Macroeconomics" held by G. Travaglini. Teaching based on applied macroeconomics: foundations of national accounting, IS-LM model and extensions, functioning of the labor market, Phillips curve, Mundell-Fleming model, long-run growth models.</p>
<b>8, 11, 25 Oct. 2021</b>	<p><b>Seminar "Financial Evaluation and Applied Statistics" at BCC of Pesaro – 9 hours</b></p> <p>Cycle of seminars at Banca di Credito Cooperativo (BCC) of Pesaro. Lectures based on financial mathematics (regimes on interests, amortization rules, financial projects assessment, duration, and return indicators) and applied statistics (descriptive statistics, variability indicators in financial applications, theory of probability, principles of linear regression).</p>
<b>15, 29 March, 12 April 2021</b>	<p><b>Cycle of seminars in the MA LM-77 course "Analysis and Economic Forecasting" SECS-P/01, University of Urbino - intuitu personae contract – 6 hours</b></p> <p>Cycle of seminars: I. Introduction to using Gretl. II. Inferential statistics: regression model estimation. III. Time series analysis, in the MA course of "Analysis and Economic Forecasting" held by G. Calcagnini.</p>
<b>From 2018 to 2023</b>	<p><b>Seminar lectures in the BA L-18 course "Monetary Economics" SECS-P/02 - 2 hours each on a yearly basis</b></p> <p>Seminar lectures "Unconventional Monetary Policy during the Recent Crisis" at the BA course of "Monetary Economics" held by G. Giombini. Lectures on the financial crisis of 2007, covid-19 recession, unconventional monetary policies of central banks, and the role and main instruments of the ECB during the crisis.</p>

<b>From Dec. 2021</b>	Culture della materia, expert in the field of Microeconomics (SECS-P/01)
<b>From Dec. 2021</b>	Culture della materia, expert in the field of Monetary Economics (SECS-P/02)
<b>2017 - 2018 - 2019 - 2022</b>	<b>Graduate Mentor</b> Counsel minority undergraduates on graduate programs, application procedures and funding, University of Urbino.

## CONFERENCE PRESENTATIONS

<b>12 - 15 Sept. 2021</b>	"Non-Performing Loans, Expectations and Banking Stability: A Dynamic Model", 12 <sup>th</sup> International Conference of <i>Nonlinear Economic Dynamics</i> – NED, University Cattolica del Sacro Cuore, Milan.
<b>26 - 29 Oct. 2021</b>	"An Optimal Control Problem of Monetary Policy", 62 <sup>nd</sup> Annual Conference (RSA) of the <i>Italian Economic Association</i> - SIE, online.
<b>16 - 18 June 2022</b>	"The effects of a green monetary policy on firms financing cost", AISSEC ( <i>Italian Association for the Study of Comparative Economic Systems</i> ), XXII Scientific Conference - (RE)DISCOVERING THE DRIVERS OF ECONOMIC DEVELOPMENT - University of Chieti-Pescara.
<b>22 - 24 June 2022</b>	"The effects of a green monetary policy on firms financing cost", WEHIA22 ( <i>The Workshop on Economic Science with Heterogeneous Interacting Agents</i> ), University of Catania.
<b>8 - 10 Sept. 2022</b>	"An evolutionary game to model offshoring and reshoring of production between developed and developing countries", 11 <sup>th</sup> Workshop MDEF ( <i>Dynamic models in Economics and Finance</i> ), University of Urbino.
<b>20 - 22 Oct. 2022</b>	"An Evolutionary Game to Model Offshoring and Reshoring of Production between Developed and Developing Countries", 63 <sup>rd</sup> Annual Conference (RSA) of the <i>Italian Economic Association</i> – SIE, University of Turin.
<b>8 - 9 June 2023</b>	"Banks versus Households: The economic incentives behind financially illiterate households", <i>International Conference on Financial Fragility and Financial Education of Households and Firms</i> , University of Urbino.
<b>19 - 21 June 2023</b>	"The effects of a green monetary policy on firms financing cost", <i>Nonlinear Economic Dynamics</i> – NED 2023, University of Adger, Kristiansand (Norway).
<b>19 – 21 Oct. 2023</b>	"Exploring the Drivers of Bank Guarantees: An Empirical Analysis of Personal and Collateral Guarantees", 64 <sup>rd</sup> Annual Conference (RSA) of the <i>Italian Economic Association</i> – SIE, Gran Sasso Science Institute (GSSI), L'Aquila.
<b>19 – 21 Oct. 2023</b>	"Banks versus Households: The economic incentives behind financially illiterate households", 64 <sup>rd</sup> Annual Conference (RSA) of the <i>Italian Economic Association</i> – SIE, Gran Sasso Science Institute (GSSI), L'Aquila.
<b>22 – 23 Feb. 2024</b>	"Green Investment Challenges in European SMEs: Internal vs External Resource", in the Special Session: "A comparative perspective on policies for ecological challenges" of the Italian Association for the Study of Comparative Economics Systems (AISSEC), 12 <sup>th</sup> <i>Italian Association of Environmental and Resource Economists</i> - IAERE Annual Conference 2024, University of Chieti-Pescara.

<b>3 – 4 June 2024</b>	“Greenflation, Climateflation and Monetary Policy: The Dynamics of Sustainable Transition”, in the International Workshop Macroeconomic Green Dynamics, “Optimal Timing and Control to Eradicate Firms’ Polluting Activities: The Roles of Fiscal and Monetary Policies”, University of Urbino.
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#### VISITING AND EDUCATIONAL TRAVEL

<b>5 - 6 Dec. 2020</b>	Educational travel at the European Commission and the European Parliament, Brussels.
<b>4 Nov. - 13 Dec. 2021</b>	<b>Visiting Research period at the New College of the Humanities, London</b> Visiting period at the New College of the Humanities (NCH) in London, under the supervision of S. Ille.
<b>9 April - 9 May 2022</b>	<b>Visiting Research period at the University of Groningen, Groningen</b> Visiting period at the University of Groningen (RUG) in Groningen, under the supervision of E. Sterken.
<b>11 - 12 Dec. 2023</b>	Educational travel at the European Central Bank, Frankfurt.

#### HONORS AND AWARDS

<b>2017</b>	Academic award “Studenti Meritevoli” (meritorious students) for ranking among top 5% students of Urbino University, value: 500.00 €.
<b>2019</b>	Academic scholarship “Premio alla Carriera”, Urbino University, value: 300.00 €.
<b>2019 - 2022</b>	3 years-scholarship to pursue the PhD in Global Studies, University of Urbino.

#### TRAINING AND FORMATION

<b>Oct. 2019 - Sept. 2020</b>	<b>Exams taken during the first year of Ph.D. in Global Studies:</b> _ <u>First semester</u> : Research Methods, History and trends of Globalization, Microeconomics, History of Economic Thought, International Business. _ <u>Second semester</u> : Applied Statistics, International Macroeconomics, International Production and Trade, Politics and Global Governance. _ <u>Third semester</u> : Applied Econometrics, European Institutions and Law, International Corporate Governance and Accounting, Data Lab. _ <u>Fourth semester</u> : International and European Economic Policy, Globalisation and International Institutions, Economics of Innovation and Technology Transfer, Globalisation and Changing Role of the Nation State.
<b>12 - 13 Oct. 2017</b>	International conference on “Small Businesses, Banks, Finance, Innovation and Growth”, <i>Department of Economics, Society and Politics</i> (DESP), Urbino.
<b>10 - 11 March 2020</b>	Advanced Minicourse on “International Monetary Policy” - A. Karmann (TU Dresden, Germany), organized by the Urbino PhD in Global Studies.
<b>11 - 15 May 2020</b>	Advanced Course on “Innovation, Growth, International Production. Models and Data Analysis, 15 <sup>th</sup> edition”, organized by University of Urbino Carlo Bo, Sapienza University of Rome, Scuola Normale Superiore of Pisa.

<b>8 - 9 Oct. 2020</b>	XXI International Conference “Comparatives Perspective on Economic Development and Inequalities” - Keynote Speeches: prof. J Stiglitz (Nobel Laureate, University of Columbia), C. De La Torre (University of Florida), organized by the Urbino PhD in Global Studies, in collaboration with Italian Association for Comparative Studies of Economic Systems (AISSEC).
<b>12 April - 7 May 2021</b>	Series of Seminars “Money and Payments: history, rules, digitalization and preservation” – R. De Bonis, M. I. Vangelisti (Bank of Italy), University of Urbino and Bank of Italy.
<b>19 - 23 April 2021</b>	Intensive Course “Writing for Academic Publications: An Introduction to English-Language Tools”, 20 hours - C. L. Farwell, <i>Centro Linguistico di Ateneo</i> (CLA) Urbino University.
<b>7 - 23 June 2021</b>	Training School in “Modern Macro, Money, and International Finance”- M. Brunnermeier, Euro Area Business Cycle Network (EABCN).
<b>28 June - 2 July 2021</b>	Microeconometrics Summer School in “Econometric of Cross-section Data with Applications” - J. G. Villar, <i>Barcellona Graduate School of Economics</i> (GSE).
<b>7 Oct., 16 Nov., 13 Dec. 2021</b>	International Workshop “The RCEA Workshop on the Future of Europe”, 1 <sup>st</sup> meeting “The Political Economy of Brexit”, 2 <sup>nd</sup> meeting “The Hamilton Momentum and the Future of the European Integration”, 3 <sup>rd</sup> meeting “The Great Divide: Education, Despair and Death”, jointly organized by CefES-DEMS (Center for European Studies), JRC (European Commission), and RCEA-Europe ETS (Rimini Center for Economic Analysis).
<b>17 Oct. 2021</b>	“36th Annual International Banking Seminar” organized by “The Group of Thirty (G30), Consultative Group on International Economic and Monetary Affairs.
<b>22 Nov. 2021</b>	Discussant at the seminar “Predicting bank defaults: A Macro-Micro Perspective” – O. Verchenko (Kiev School of Economics), University of Urbino.
<b>25 Nov. - 30 Nov. 2021</b>	Advanced Course “Elements of Non-Linear Dynamics” – I. Sushko, Kiev School of Economics, organized by the Urbino PhD in Global Studies.
<b>3 Feb. 2022</b>	Meeting of the Italian Economic Association (S.I.E.) “Le sfide della politica monetaria europea nell’economia della pandemia” with R. Tamborini, M. Messori, C. Alcidi (CEPS - Bruxelles) and I. Tinagli (European Parliament).
<b>4 - 7 April 2022</b>	Training School in “Financial Intermediation and Monetary Policy” – I. Drechsler (Penn), A. Savov (NYU), P. Schnabl (NYU), <i>Euro Area Business Cycle Network</i> (EABCN).
<b>11 – 12 Dec. 2023</b>	International Conference “Climateflation, Green-Inflation e Fossil-Inflation” - European Central Bank (ECB), Frankfurt Am Main.
<b>18 Jan. 2024</b>	International Conference “Climate finance in an uncertain world: Challenges for central banking and financial regulation”. BAFFI Centre on Economics, Finance and Regulation & IEP Institute for European Policymaking, Bocconi University.

#### PROFESSIONAL ASSOCIATIONS

- **Member of the Scientific and Editorial Board** (Comitato scientifico ed editoriale) of *Argomenti, Rivista di Economia, Cultura e Ricerca Sociale*. Open Journals Uniurb. E-ISSN: 1971-8357.
- Member of SIE “*Società Italiana degli Economisti*”, Università Politecnica delle Marche.
- Member of AISSEC “*Italian Association for the Study of Comparative Economic Systems*”.
- Member of IAERE, “*Italian Association of Environmental and Resources Economics*”.

- Member of SEEDS “Sustainability Environmental Economics and Dynamics Studies”.
- Affiliate of CeFes “Center for European Studies”, Università di Milano Bicocca.

#### REFEREEING ACTIVITIES

Referee for *Italian Economic Journal*, Springer. E-ISSN: 2199-3238, ISSN: 2199-322X.

Referee for *Computational Economics*, Springer. E-ISSN: 1572-9974, ISSN: 0927-7099.

Referee for *International Journal of Applied Behavioral Economics*, IGI Global. E-ISSN: 2160-9810.

Referee for *Journal of Sustainability Research*, Hapres. ISSN: 2632-6582.

Referee for *Argomenti, Rivista di Economia, Cultura e Ricerca Sociale*. Open Journals Uniurb. E-ISSN: 1971-8357.

#### FOREIGN LANGUAGES

English: proficient                      Italian: native

**BEC Vantage level B2 Certification**, Cambridge English Assessment, overall score: **172**, March 2019.

#### TECHNICAL SKILLS

- Programming languages and mathematical packages: MATLAB, Wolfram Alpha, E&F Chaos, C, C ++, Python, Java, HTML, CSS, Visual Basic, PHP, Android, database management and development (Access, MySQL).
- Economics and Econometrics software: Stata, Gretl, R, Dynare.
- Others: Office, LaTeX, Scientific Workplace, Linux (Debian, Ubuntu), Mac OS, Windows OS.

**Personal data:** I authorize the treatment of my personal data under “Decreto Legislativo 30 giugno 2003, n. 196, Codice in materia di protezione dei dati personali”.

**Signature:**

