PERSONAL INFORMATION Prof. Irene Monasterolo

Date of birth: 04 November 1982 Nationality: Italian Email: irene.monasterolo@wu.ac.at

WORK EXPERIENCE: Academia

October 2023 – Utrecht University, Utrecht, The Netherlands

Full professor of Climate Finance at the School of Economics, corporate finance chair.

- Climate risks, debt sustainability and sovereign financial stability
- Supranational lending toolkit for climate adaptation
- Common ownership, corporate climate disclosure and banks' investment decisions

October 2023 – Vienna University of Economics and Business, Institute for Ecological Economics (AT) Visiting professor

Leader of the Climate economics and finance research area. Leader of WP4 "Addressing the insurance protection gap in Italy and the EU" and co-leader of WP3 "ESG and climate stress-test for European national financial authorities" within the ESG-UPTAKE - ESG risk management framework for the financial sector. Sponsor: European Commission DG REFORM, 2023 – 2025:

- Asset level climate physical risk assessment for adaptation finance
- Climate insurance protection gap
- NGFS short-term climate scenarios for climate stress test
- Task Force on Climate, Development and the IMF

October 2021 - September 2023 EDHEC Business School (Nice, FR), Professor of Climate Finance. Main: impact of finance on climate mitigation and adaptation

- · Fiscal and financial implications of compound climate, pandemics and financial risks
- Climate risks, policy uncertainty and financial stability

March 2020 – October 2021 International Institute for Applied Systems Analysis (Laxenburg, AT), visiting researcher, Energy department.

• Integrating the role of finance and its complexity in the climate mitigation scenarios of processbased Integrated Assessment Models (paper published in Science) to understand under which conditions finance can be an enabler or a barrier to the achievement of the climate targets.

March 2019 - September 2019 Stanford University (Stanford, USA), invited visiting research scholar.

March 2017 – September 2021 Vienna University of Economics and Business (AT), Assistant professor of Climate Economics and Finance.

- Climate stress-test of the financial system
- Macro-financial criticality of climate risks
- Fiscal and financial implications of climate risks

May 2015 – February 2017 - Boston University (USA), Post-doctoral Associate, Frederick S. Pardee Center for the Study of the Longer-Range Future.

February 2014 – March 2015 National Council of Research Milan (IT), Disaster risk insurance researcher. Development of the methodological framework to assess the fiscal and financial implications of natural disasters, and the role of disasters insurance. Visiting at Resources for the Future in Washington DC under the supervision of C. Kousky on disaster risk insurance.

April 2012 - April 2015 Anglia Ruskin University, Global Sustainability Institute (UK), Post-doctoral Associate.

WORK EXPERIENCE: Consultancies

September 2023 – December 2024 European Stability Mechanism Technical guidance and modelling support for the assessment of the impact of climate risks on debt sustainability and sovereign financial stability in Euro Area

April 2023 – March 2024 Monetary Authority of Singapore (MAS)

Climate financial risk assessment of MAS portfolio (corporate and sovereign bonds)

February 2023 – July 2023 The World Bank

"Mobilizing Finance for the Just Energy Transition in the European Union". Assessment of just transition-related risks for financial firms in just transition regions and high-carbon and fossil fuel intensive sectors. Report available at: http://documents.worldbank.org/curated/en/099071523034041011/P179493027acfc0960858d0cb359 7661c6b

September 2022 – September 2023 The World Bank

"Financial sector greenhouse gas emissions mitigation tool". Development of a Theory of Change on green financial sector interventions and analyse the impact of green finance sector initiatives on capital costs and capital reallocation for decarbonization. WB working paper available at: https://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-10181

March 2021 – September 2021 CERES

"Financing a net-zero economy: the consequences of physical climate risk for US banks". Report available at: https://bit.ly/2WAAg4C

March 2020 - December 2021 - The World Bank

"COVID-19 Pandemic, Financial Shock and Climate Disasters: Assessing macroeconomic and financial impact of compound risks in developing countries", the World Bank Disaster Risk Financing and Insurance (DRFI) Program.

May 2020 – October 2020 – European Commission, DG DEVCO

"How can development cooperation better promote climate-aligned finance solutions in developing countries?". Study to inform the operational implementation of the external dimension of the Green Deal, Sustainable Development Goals, development of Integrated National Financing Frameworks.

January 2020 – June 2020 CERES

"Financing a net-zero economy: measuring and addressing climate transition risks for US banks". Report available at: https://bit.ly/3B850Jp

October 2016 - February 2017 Baastel for United Nations Office for Disaster Risk Reduction

Within the evaluation of the Initiative "Building capacities for increased public investment in integrated climate change adaptation and disaster risk reduction: 2012 – 2015".

January 2016 – December 2016 Niras for European Investment Bank

European Investment Bank's technical assistance "Climate action support to the Caribbean Development Bank (CDB)": methodology to regularly assess CDB portfolio's exposure to climate risks as part of portfolio risk management and climate-aware portfolio rebalancing.

January - February 2016 Inter-American Development Bank

Peer-Review of the Inter-American Development Bank's climate mitigation and adaptation strategy "Climate Change Mitigation and Adaptation: Identifying Pathways that lead knowledge to action".

December 2014 The World Bank

Capacity building to the Polish Ministry of Finance and Ministry of Agriculture on EU2030 targets, including cost-benefit analysis of alignment under macroeconomic and climate policy scenarios.

September 2012 – March 2014 The World Bank

Direct support to the Ministry of Agriculture to support the Croatian National Rural Development Program for the programming period 2014-2020. *Direct support to the Ministry of Regional Development and EU funds* to review the Partnership Agreement and draft Operative Programs, and analyse constraints in securing beneficiary counterpart financing under EU-funded programs.

June 2013 The World Bank

Preparation of reimbursable advisory services in Hungary on sustainable and inclusive development and pension system reform. Direct work experience with the government during negotiations.

EDUCATION

2012 PhD in AGRI-FOOD ECONOMICS AND STATISTICS, *Department of Statistics*, University of Bologna (31/05/2012). AISSEC best PhD thesis in Comparative Political Economy.

2007 LAUREA SPECIALISTICA, ECONOMIC COOPERATION AND DEVELOPMENT (2 years), *Faculty of Political Sciences*, University of Bologna. Thesis written at the Corvinus University of Budapest, University of Bologna, 23/06/2007. Final grade: 110 cum laude.

2004 LAUREA TRIENNALE, INTERNATIONAL RELATIONS (3 years), *Faculty of Political Sciences*, University of Pavia, 7/7/2004. Final grade: 110 cum laude.

RESEARCH PRIZES:

- 2022: Banque de France's Green Finance Research Prize, November 2022
- 2022: Vienna University of Economics and Business, Best paper award, November 2022.
- 2021: Vienna University of Economics and Business, Researcher of the month, July 2021.
- 2020: ECOMOD conference, young researcher prize 2020.
- 2019; ECMCC-IV Econometric models of climate change research prize 2019.
- 2014: AISSEC best PhD thesis award in comparative political economy.

PUBLICATIONS AND EDITORIAL ACTIVITIES

Scholar citations: 5272 (since 2016)

Scholar H index: 32

Publications

- 1. Mandel, A., Battiston, S., Monasterolo, I. (2025). Mapping of global financial risk under climate change. *Nature Climate Change*, forthcoming.
- 2. Monasterolo, I., Pagano, M., Pacelli, A., Russo, C. (2025). A European climate bond. *Economic Policy*, eiae065, https://doi.org/10.1093/epolic/eiae065.
- 3. Gourdel, R., Monasterolo, I., Gallagher, K. (2025). Climate transition spillovers and sovereign risk: evidence from Indonesia. *Energy Economics*, forthcoming.
- 4. Auer, C., Bosello, F., Bressan, G., Delpiazzo, E., Monasterolo, I., Parrado, R., ... & Otto, C. (2025). Cascading socio-economic and financial impacts of the Russia-Ukraine conflict. *Nature Communications Earth & Environment*, forthcoming.
- 5. Bressan, G., Duranovic, A., Monasterolo, I., Battiston, S. (2024). Asset-level climate physical risk assessment matters for adaptation finance. *Nature Communications*, 15, 5371.
- 6. Monasterolo, I., Mandel, A., Battiston, S. et al. (2024). The role of green finance sector initiatives in the low-carbon transition: a theory of change. *Global Environmental Change* 89, 102915.
- Eker, S., Wilson, C., Höhne, N., McCaffrey, M. S., Monasterolo, I., Niamir, L., & Zimm, C. (2024). Harnessing social tipping dynamics: A systems approach for accelerating decarbonization. *One Earth*, 7(6), 976-988.
- Gourdel, R., Monasterolo, I, Dunz, N., Mazzocchetti, A. and Parisi, L. (2024). The double materiality of climate physical and transition risks in the euro-area. *Journal of Financial Stability, 71*, 101233. Previous version as *ECB working paper series,* n. 2665, May 2022. Covered in: <u>S&P Global,</u> <u>SUERF-Bocconi</u>, Natixis Research.
- Dunz, N., Mazzocchetti, A., Monasterolo, I., Essenfelder, A., Raberto, M. (2023). Compounding COVID-19 and climate risks: the interplay of banks' lending and government's policy in the shock recovery. *Journal of Banking and Finance, 152, 106303.* Covered in: <u>Brookings</u> Institute, <u>World</u> <u>Bank Report on 360degrees resilience</u>.
- 10. Berg, T., Carletti, E., Claessens, S., Krahnen, J.P., Monasterolo, I., Pagano, M. (2023). Climate regulation and financial risk: The challenge of policy uncertainty. VoxEU: https://cepr.org/voxeu/columns/climate-regulation-and-financial-risk-challenge-policy-uncertainty
- 11. Monasterolo, I., Nieto, M., Schets, E. (2023). The good, the bad and the hot-house world. Conceptual underpinnings of the NGFS Scenarios and suggestions for improvement. Banco de España working paper series. https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/PublicacionesSeriadas/Documentos Ocasionales/23/Files/do2302e.pdf
- Bressan, G., Monasterolo, I, Battiston, S. (2022). Sustainable investing and climate transition risk: a portfolio rebalancing approach. *Journal of Portfolio Management*, special issue "Novel risks" edt. by F. Fabozzi (<u>https://jpm.pm-research.com/content/early/2022/07/14/jpm.2022.1.394</u>). Covered in <u>Natixis</u> Research (05.08.22).
- 13. Kruczkiewicz, A. et al. (2022). Multiform flood risk in a rapidly changing world: what we do not do, what we should and why it matters. *Environmental Research Letters*, 17, 8, 1-9.
- Battiston S. Monasterolo, I., Riahi, K., and van Rujiven, B. (2021). Accounting for finance is key for climate mitigation pathways. *Science*, *372*(6545), 918-920. Covered in: <u>IPCC AR6 report</u>, <u>UN PRI</u>, <u>IMF 2021</u>, Financial Times - the Banker, <u>Le Monde</u>, <u>II Sole24Ore</u>.
- 15. Ramos, L., Gallagher, K. P., Stephenson, C., & Monasterolo, I. (2021). Climate risk and IMF surveillance policy: a baseline analysis. *Climate Policy*, 1-18.
- 16. West, C. D. et al. (2021). Europe's cross-border trade, human security and financial connections: A climate risk perspective. *Climate Risk Management*, *34*, 100382.
- 17. Naqvi, A., Monasterolo I. (2021). Assessing the cascading impacts of natural disasters in a multilayer behavioral network framework. *Nature Scientific Reports*, 11(1), 1-14.

- 18. Battiston, S., Dafermos, Y., and Monasterolo, I (2021). Climate risks and financial stability. *Journal of Financial Stability*, vol. 54, June 2021.
- 19. Dunz, N., Naqvi, A., Monasterolo, I. (2021). Climate sentiments, transition risk, and financial stability in a stock-flow consistent model. *Journal of Financial Stability*, vol. 54, June 2021. Covered in: <u>IPCC AR6 report</u>.
- 20. Monasterolo, I. (2020). Embedding finance in the macroeconomics of climate change: research challenges and opportunities ahead. *CESIfo Forum*, 4/2020, p.25-33.
- 21. Monasterolo, I. (2020). Climate change and the financial system. *Annual Review of Resource Economics*, Volume 12, 1-22.
- 22. Hafner, S., Anger-Kraavi, A., Monasterolo, I., Jones, A. (2020). Emergence of New Economics Energy Transition Models: A Review. *Ecological Economics*, 177, 106779.
- 23. Monasterolo, I., de Angelis, L. (2020). Blind to carbon risk? An Analysis of Stock Market's Reaction to the Paris Agreement. *Ecological Economics*, 170, 1-10. Covered in: <u>IPCC AR6 report</u>.
- 24. Monasterolo, I., Roventini, A., Foxon, T. (2019). Uncertainty of climate policies and implications for economics and finance: an evolutionary economics approach. *Ecological Economics*, 1-10.
- 25. Monasterolo, I., Raberto, M. (2019). The impact of phasing out fossil fuel subsidies on the lowcarbon transition. *Energy Policy*, 124, 355-370.
- 26. Stolbova, V., Monasterolo, I. Battiston, S. (2018). A financial macro-network approach to climate policies evaluation, *Ecological Economics*, 149, 239-253.
- Monasterolo, I., Jiani I. Zheng and Battiston, S. (2018). Climate transition risk and development finance: a climate stress-test of China's overseas energy portfolios. *China & World Economy* 26(6), 116–142. G20 Task Force "An International Financial Architecture for Stability and Development".
- Monasterolo, I., Raberto, M (2018). The EIRIN flow-of-funds behavioral model of green fiscal policies and green sovereign bonds. *Ecological Economics*, 144, 228-243. Covered in: <u>IPCC AR6</u> <u>report, G20 Finance Ministers for Climate 2021</u>, <u>IMF working paper 2019</u>, <u>The World Bank 2021</u>, <u>Asian Development Bank 2020</u>, <u>Banco de Espana 2020</u>.
- 29. Monasterolo, I., Battiston, S., Janetos, A. C., & Zheng, Z. (2017). Vulnerable yet relevant: the two dimensions of climate-related financial disclosure. *Climatic Change*, *145*(3-4), 495-507. Covered in: <u>IPCC AR6 report</u>, <u>G20 Finance Ministers for Climate 2021</u>, <u>IMF working paper 2019</u>.
- Battiston S., Mandel A, Monasterolo I., Schuetze F. & G. Visentin (2017). A Climate stress-test of the EU financial system. *Nature Climate Change*, 7, 283–288. Covered in; <u>IPCC AR6 report</u> 2021, <u>IPCC 2018</u>; <u>G20 Finance Ministers for Climate 2021</u>; <u>IMF 2019</u>, <u>2021</u>, <u>2022</u>; <u>The World Bank 2020</u>, <u>2020b</u>, <u>2021</u>; <u>Deutsche Bundesbank 2021</u>; <u>Bank of Canada 2019</u>; <u>BIS 2021</u>; <u>OECD 2019</u>.
- Howarth, C., Monasterolo, I. (2017). Opportunities for knowledge co-production across the energyfood-water nexus: Making interdisciplinary approaches work for better climate decision making. *Environmental Science & Policy*, 75, 103-110.
- 32. Howarth C., Monasterolo I. (2016). Understanding barriers to decision making in the energy-foodwater nexus: the added value of interdisciplinary approaches. *Environmental Science & Policy*.

Working papers

- 1. Alessi, L., Monasterolo, I., Kvedaras, V., Duranovic, A. (2024). Greenness of Public Investment Programs and Sovereign Yields. Working paper.
- 2. De Angelis, L., Monasterolo, I. (2024). Greeness confusion and the greenium. Working paper, available at SSRN: <u>https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4719166</u>
- 3. Briere, M., Duranovic, A., Huynh, K., Monasterolo, I., & Ramelli, S. (2024). Investor Concerns and the Pricing of Physical Climate Risk. *Available at SSRN*.
- 4. De Angelis, L., Monasterolo, I., & Zanin, L. (2024). Look up and ahead: How climate scenarios affect european sovereign risk. *Available at SSRN 4948549*.

- 5. Battiston, S., Monasterolo, I., Montone, M. (2023). Technological greenness and long-run performance. Working paper, available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4639787
- Battiston, S., Mandel, A., Monasterolo, I. and Roncoroni, A. (2023). Climate credit risk and corporate valuation. Working paper, available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4124002
 Invited presentation and the Green Finance Research Advances conference 2022 (Banque de France) and Climate Credit Risk Conference (Banca d'Italia, 2021).
- 7. Battiston, S., Monasterolo, I., van Ruijven, B., Riahi, K. (2022). Emissions: focus on optimistic business-as-usual scenarios is misleading.
- 8. Mazzocchetti, A., Monasterolo, I., Vismara, A. (2022). A question of trust? Banks' climate sentiments, lending behavior and the low-carbon transition. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4293713
- Giuliani, E., Monasterolo, I., Duranovic, A. (2022). Climate risk, sustainable finance and international business: a research agenda. Working paper available at SSRN (<u>https://bit.ly/3WsJskN</u>). Invited presentation at the Annual conference of the Academy of International Business 2021.
- Gourdel, R, Monasterolo, I (2022). Climate physical risk, transition spillovers and fiscal stability. Application to Barbados. Working paper, G24-V20 Task Force on Climate Policy for Development at the International Monetary Fund (<u>https://bit.ly/3Y0PE52</u>).
- Battiston, S., Monasterolo, I., van Ruijven, B., Krey, V. (2022). Mapping economic activities into climate scenarios and transition risk classes: the NACE-CPRS-IAM classification, Technical report. Available on the NGFS scenarios database explorer and at SSRN (<u>https://bit.ly/3tssBSG</u>).
- 12. Battiston, S., Monasterolo, I. (2020). On the dependence of investor's probability of default on climate transition scenarios. Available at SSRN (abstract_id=3743647).
- 13. Battiston, S., Monasterolo, I. (2020). The Climate spread of sovereign and corporate bonds. Available at SSRN (abstract_id=3376218).
- Monasterolo, I., Glas, N., and Kunesch, S. (2020). Climate sentiments in the financial sector: how financial markets, policies and regulations generate barriers and opportunities to align portfolios to sustainability. Available at SSRN (abstract_id=3659459).
- 15. Battiston, S. and Monasterolo, I. (2019). How could the ECB's monetary policy support the sustainable finance transition? (<u>https://bit.ly/3rdghFt).</u> Covered in: Le Monde, El Pais, Ilsole24Ore.
- Monasterolo, I., Raberto, M. (2017). Is there a role for Central Banks in the low-carbon transition? A Stock-Flow Consistent-Agent Based modelling approach. Working Paper prepared for the De Nederlandsche Bank's conference *Central Banking and Green Finance*, 28-29.11.2017.

Technical reports and policy briefs

- 1. Ranger, N., et al. (2024). Assessing the Materiality of Nature-Related Financial Risks for the UK. Green Finance Institute, April 2024.
- Calice, P., Battiston, S., Demekas, D., G., Duggan, V.F., Monasterolo, I. (2023). Mobilizing Finance for the Just Energy Transition in the European Union. Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/099071523034041011/P179493027acfc09608 58d0cb3597661c6b
- 3. Brandhani, R., Gourdel, R., He, X., Monasterolo, I. (2023). Addressing cross-border spillover risks of climate transition policies: what role for G20 influence at the IMF? G20 T20 Indonesia report.
- 4. Monasterolo, I., Duranovic, A. (2023). Transboundary climate risks and finance. In: The Global Transboundary Climate Risks Report, available at: <u>https://adaptationwithoutborders.org/knowledge-base/adaptation-without-borders/the-global-transboundary-climate-risk-report</u>

- Monasterolo, I., Briere, M., Gallagher, K., Gardes-Landolfini, C., & Ranger, N. Scaling up climate adaptation finance in times of growing public debt, inflation and natural disasters (2023). European Capital Market Institute, policy brief, April 2023. Available at: <u>https://www.ecmi.eu/publications/policy-briefs/scaling-climate-adaptation-finance-during-periodsgrowing-public-debt</u>
- 6. Ranger, N. A., Mahul, O., & Monasterolo, I. (2022). Assessing financial risks from physical climate shocks. *Washington, DC: World Bank*.
- 7. Battiston, S., Monasterolo, I. (2022). Classificazione dei progetti di investimento in base ad allineamento agli obiettivi di sostenibilità, climatici e al rischio finanziario di transizione. In: Investire in Infrastrutture: Strumenti Finanziari e Sostenibilità. Rapporto per il Ministero delle infrastrutture e mobilita' sostenibile del Governo Italiano, uso dei fondi del Piano Nazionale di Ripresa e Resilienza.
- Monasterolo, I., Volz, U. (2020). Addressing climate-related financial risks and overcoming barriers to scaling up sustainable investments. G20 Saudi Arabia: T20's Task Force 2 "Climate Change and Environment" 2020 (https://bit.ly/3wPSa39).
- Battiston, S., Guth, M., Monasterolo, I., Nuerdorfer, B., Pointner, W. (2020). The exposure of Austrian banks to climate-related transition risk. In: Austrian National Bank's Financial Stability Report 2020: <u>https://www.oenb.at/en/Publications/Financial-Market/Financial-Stability-Report.html</u>
- 10. Monasterolo, I., Battiston, S. (2020). Pricing forward-looking climate risks in financial contracts. In: *Report of the Joint JRC - EBA workshop on Banking Regulation and Sustainability*, edt. by Alessi,L
- Battiston, S., Jakubik, P., Monasterolo, I., Riahi, K., van Ruijven, B. (2019). Climate risk assessment of sovereign bonds' portfolio of European insurers. In: *European Insurance and Occupational Pension Authority (EIOPA) Financial Stability Report*, December 2019.
- 12. Battiston, S., Monasterolo, I. (2019). How could the ECB's monetary policy support the sustainable finance transition? Working paper available at https://www.finexus.uzh.ch/en/news/cspp_sustainable_finance.html, input for Positive Money report.

Chapters in books

- 1. Battiston, S., Monasterolo, I. (2025). Climate risks through the lenses of complexity economics and finance. In: The Economy as a Complex Evolving System IV. Santa Fe Institute Press (forthcoming).
- Battiston, S., Monasterolo, I. (2024). Enhanced scenarios for climate stress tests. INSPIRE Sustainable Central Banking Toolbox – Policy Briefing No.16. Available at: https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2024/04/INSPIRE-Sustainable-Central-Banking-Toolbox-Paper-16.pdf
- Battiston, S., Billio, M., and Monasterolo, I. (2020). Pandemics, climate and public finance: how to strengthen socio-economic resilience across policy domains. In: A New World Post COVID-19 Lessons for Business, the Finance Industry and Policy Makers, edited by Monica Billio and Simone Varotto, Edizioni Ca' Foscari, pag. 259-268.
- Monasterolo I., Battiston S. (2020). Assessing forward-looking climate risks in financial portfolios: a science-based approach for investors and supervisors. NGFS Occasional Papers Case Studies of Environmental Risk Analysis Methodologies. Published on 09/10/2020; 616 pages: https://www.ngfs.net/en/case-studies-environmental-risk-analysis-methodologies
- 5. Lamperti, F., Monasterolo, I., Roventini, A. (2019). Climate Risks, Economics and Finance: Insights from Complex Systems. In: The Systemic Turn in Human and Natural Sciences. A Rock in The Pond, Hrsg. Ulivi, L. 1-23. Contemporary Systems Thinking: Springer.
- 6. Monasterolo, I., Raberto, M. (2016). No Contest: Green versus Brown Subsidies under TTIP trade agreement. *Issues in Brief, The Pardee Center Series,* Sept. 2016.
- 7. Zoboli, R., Monasterolo, I. (2015). Climate change and agriculture: Reducing food risk through Adaptation Strategies. ISBN print edition: 978-88-6780-906-6

Blogposts and online articles (selected)

- 1. Monasterolo, I. (2022). <u>Les institutions financières multilatérales ont besoin d'une théorie du</u> changement pour mieux financer l'action climatique. Op-ed, Le Monde (18 November 2022).
- 2. Monasterolo, I., Battiston, S. (2022). <u>Climate finance: what is reasonable to expect from MDBs</u>? FT Sustainable Views (10 November 2022).
- 3. Monasterolo, I. (2022). As COP27 approaches, central banks signaling need for action on climate. S&P Global, ESG Insider.
- 4. He, X., Monasterolo, I., Gallagher, K, (2022). <u>The IMF needs to mitigate climate transition risk</u>. *Project Syndicate* (11 April 2022).
- Monasterolo, I., Dunz, N., Mazzocchetti, A., Essenfelder, A. (2021). Financial risk assessment and management in times of compounding climate and pandemics shocks. *Brookings Institute*, Future Development series blogs (<u>https://brook.gs/3ljmqWX</u>).
- 6. Mahul, O., Monasterolo, I., Ranger, N. (2021). Learning from COVID-19 and climate change: Managing the financial risks of compound shocks. World Bank blog, <u>https://bit.ly/3zYqTdV</u>
- 7. Battiston, S., Monasterolo, I. (2021). <u>Why climate mitigation scenarios should factor in transition</u> <u>risk</u>. *UN PRI* blogpost (8/12/2021)
- 8. Battiston, S., Monasterolo, I. (2021). <u>Le système financier peut faire pencher la dynamique de la transition écologique d'un côté ou de l'autre</u>. Le Monde (26/5/2021).
- 9. Battiston, S., Monasterolo, I. (2021). Accounting for investors' expectations in climate scenarios is vital to risk supervision. FT The Banker (21/06/2021)
- 10. Battiston, S., Monasterolo, I. (2021). <u>Transizione ecologica e rischio finanziario: il ruolo chiave delle aspettative</u>. Il Sole 24 Ore (24/5/2021).
- 11. Kletzan-Slamanig, D., ea. Klimawandel gefährdet finanzielle Stabilität. Der Standard (15/02/2021).
- 12. Monasterolo, I. <u>Assessing climate risks in investors' portfolios: a journey through climate stress-testing</u>. *UN PRI* blogpost (2/03/2020)
- 13. Monasterolo, I., Volz, U. <u>How to finance virus response in a sustainable way? Scale up synergies</u> with the Green Deal. *Euractiv* (7/04/2020).
- 14. Monasterolo, I., Volz, U. "EU virus response to shape climate action". OMFIF (8/04/2020).
- 15. Monasterolo, I., Volz, U. "Enabling EU solidarity while preserving public finances: how the EU could finance the COVID response". *Financial Times* (The Banker) (2/05/2020).
- 16. Le Monde, "<u>La Banque centrale européenne soutient trop les entreprises polluantes, selon une étude</u>" (21.3.2019).

Editorial activity

- 1. Associate editor, Ecological Economics.
- 2. Co-editor, special issue "Climate impacts and adaptation finance" (2023), Ecological Economics.
- 3. Co-editor, special issue "Climate risks and financial stability" (2021), Journal of Financial Stability.
- 4. Lead editor, special issue "Understanding uncertainty of climate policies and implications for economics and finance: an evolutionary economics approach" (2019). *Ecological Economics*.
- 5. Editorial board, Climatic Change journal.

PROJECTS FUNDED

As a principal investigator

- 1. "Green macroprudential policies and bank lending in the transition", European Climate Foundation grant.
- 2. "Climate sovereign risks: implications for surveillance and lending toolkit". European Climate Foundation grant.

- "Scaling up green finance to achieve the climate and energy targets: an assessment of macrofinancial opportunities and challenges for Austria" (GREENFIN). Sponsor: Austrian Climate Research Program (ACRP). Duration: December 2019 - December 2021. <u>https://greenfin.at/</u>
- "Assessing climate-led social-ecological impacts and opportunities for resilience pathways in the EU bioeconomy" (BIOCLIMAPATHS). Sponsor: European Commission. Duration: November 2019-October 2022 <u>http://www.jpi-climate.eu/AXIS/Activities/BIO-CLIMAPATHS</u>
- Austrian National Bank's Maria Schaumeyer Habilitationsstipendium "Closing the gap between finance and sustainability: A novel methodological framework for monetary policies' evaluation". Duration: March 2019 – September 2020.

In personal capacity

- 1. "The greenness of sovereign debt" (SUSFIN). Sponsor: European Commission's Joint Research Center.
- 2. "Climate transition spillover risk and sovereign financial stability". Task Force on Climate Policy for Development at the International Monetary Fund (IMF), G24 and V-20 countries.
- 3. "Climate risks disclosure and stress-test methodologies". European Banking Authority.

As a project partner: ongoing projects

- NATURE 3B 'Including Nature in decision making of central Banks, investment Benchmarks & Bond issuers', Horizon Europe project (Grant agreement ID: 101182455). Project partner and leader of WP3 'Macro-financial stability implications of biodiversity loss and transition scenarios for Europe'
- 2. Network for Greening the Financial System's short-term climate scenarios (2024-2025). Project leader, EIRIN model development.
- 3. "ESG risk management framework for the financial sector" (ESG-UPTAKE). Sponsor: DG REFORM, TSI-2023-ESGRM-IBA. Leader of WP4 "Closing the climate insurance protection gap", co-leader of WP3 "ESG and climate stress-test for European National Financial Authorities".
- 4. G24 V20 Task Force on "Climate, Development and the IMF". Sponsor: G24, V20, Boston University.

As a project partner: past projects

- 1. "CAScading Climate risks: towards ADaptive and resilient European Societies" (CASCADES). Sponsor: European Commission, H2020 LC-CLA-03-2018. https://www.cascades.eu/
- "Mainstreaming transparent assessment of energy efficiency in Environmental Social Governance ratings" (TranspArEEnS). Sponsor: European Commission, H2020 LC-SC3-B4E-11-2020. https://cordis.europa.eu/project/id/101033869
- 3. "ESG Factors and Climate Change for Credit Analysis and Rating" (ESG-Credit.eu). European Investment Bank's EIBURS, 2020-2022.
- 4. "Greening energy market and finance" (GrEnFin). Sponsor: European Commission, Erasmus + Knowledge Alliance Action. https://www.grenfin.eu/
- 5. International Network for Sustainable Financial Policy Insights, Research, and Exchange (INSPIRE) first grant.
- 6. H2020 FET Innovation Launchpad "Climate Exposure Tool for Financial Risk Analysis" (CLIMEX). Sponsor: European Commission, FETOPEN-03-2018-2019-2020 (CSA).
- 7. "Analysis of Carbon Risks in Financial Markets and Austrian Portfolios" (RiskFinPorto). Sponsor: Austrian Climate Research Program (ACRP). Duration: 2017 - 2019.

OTHER INSTITUTIONAL ACTIVITIES

- 2024 2027: CEPR, Research Fellow, Climate change and the environment.
- 2023-2024: Consultant, climate and sovereign risk modelling, European Stability Mechanism, Luxembourg (LU).
- 2024-2025: Member of the Independent Expert Review on Debt, Nature and Climate for the Government of Kenya.
- 2023 2024: European University Institute (Fiesole, IT) teaching professor within the Central Banking and Banking Supervision Executive Education programme "Climate risks, monetary policy and banks supervision", and the Florence School of Banking and Finance "Central banking and climate-related financial risks".
- 2023 CEPR, member of the Research Policy Network A new financial architecture for Europe
- 2023 2028: SUERF (The European Money and Finance Forum) Fellow
- 2023 : Institute Louis Bachelier Fellow
- 2022 : member, Advisory Council of the Austrian Green Finance Alliance, Austrian Ministry for Climate Action.
- 2022 : member of the Scientific Committee, PLADIFES (Plate-forme de Calcul Numerique, Intelligence Artificielle et Base Internationale De Donnees Environnementales, Financieres et Societales a Frequence Elevee) Equipex project, Institute Louis Bachelier (FR).
- 2019: Co-founder of <u>CLIMAFIN</u>.
- 2018 2020: Council member, European Association for Evolutionary Political Economy (EAEPE).
- 2018 2023: Research area co-leader "Environment-Economy Interactions", EAEPE.

ORGANISATION OF SCIENTIFIC CONFERENCES AND POLICY EVENTS (selected)

- 2022: Organizer of the **UNFCCC COP27 side event** "Scaling up climate adaptation finance in times of growing public debt, inflation and natural disasters", Cascading climate risks virtual pavilion, in collaboration with Chatham House of London, 9 November 2022.
- 2021: Organizer of the **UNFCCC COP26 side event** "Macro-financial relevance of cascading climate risks: " in collaboration with Chatham House of London, 3 November 2021.
- 2019: Organizer of the **UNFCCC COP25 side event** "Assessing climate transition risk and scaling up climate investments" in collaboration with Univ. of Zurich (UZH), European Commission Joint Research Center (JRC), ClimateWorks. EU Pavilion, Madrid (ES), 9 December 2019.
- 2019: Organizer of the **EAEPE conference special session** "Climate Risks and Opportunities in Financial Markets and Investors' Portfolios", Warsaw (Poland), 12-15 Sept. 2019.
- 2018: Co-organizer of the SUERF-WU-OENB conference "Green finance, regulation and monetary policy", Austrian Central Bank (OeNB), Vienna (AT), 4 May 2018.
- 2017: Co-organizer of the **UNFCCC COP23 side event** "How new climate risk and impact metrics can empower development finance institutions", in collaboration with Inter-American Development Bank, Climate-KIC, and the University of Zurich, Bonn (DE), November 2018.

INVITED SPEAKER: CONFERENCES AND WORKSHOPS (selected)

- 28 August 2023: invited speaker, session "Agent Based Models for Policy" organized by the Bank of England, **European Economic Association** (EEA) annual conference, Barcelona (ES).
- 28 June 2023: European Association of Environmental and Resource Economics (EAERE) annual conference, Limassol (CY). Invited speaker
- 23 March 2023: invited speaker, **European University Institute**'s annual conference, "The Environmental Social and Governance (ESG) paradigm and the climate imperative", Fiesole (IT).

- 15 December 2022: invited speaker, **Banque de France**'s Green Finance Research Conference, Paris (FR). Winner of the Green Finance Research Prize 2022.
- 8 December 2022: invited speaker, **French Development Agency**'s conference "Strong sustainability", Paris (FR).
- 2 December 2022: keynote speaker, CEMLA and UNEP FI's III Central Banks Conference on Environmental Risk "Macroeconomic and financial implications of climate change: How can central banks take immediate action in addressing climate-related risk?" session: "Understanding physical risk models and data", Mexico City (ME).
- 1 December 2022: invited speaker, UNPRI annual conference, Barcelona (ES).
- 30 Nov. 2022: invited speaker, **European Stability Mechanism** "Long term challenges for fiscal sustainability", Luxembourg (LU).
- 22 March 2022: keynote speaker, 15th **Financial Risks International Forum** "Climate risk and green transition".
- 15 Febr. 2022: invited speaker, **SUERF Baffi-Bocconi** e-lectures, "Climate-related risks: a financial stability angle for Europe".
- 03 Nov. 2021: invited speaker, **Deutsche Bundesbank**'s research seminars.
- 28 Oct. 2021: invited speaker, **Reuters** event "Unpacking the UN IPCC Climate Report: Implications for professional investors": https://events.reutersevents.com/invescoESG
- 28 Oct. 2021: invited speaker, European Central Bank's Climate Change Center Green Seminar.
- 26 Oct. 2021: invited speaker, International Monetary Fund's macro-financial seminars series.
- 20 Oct. 2021: 12th **FMA Supervisory Conference** "Sustainable Ways out of the Crisis", Austrian Financial Markets Authority, Vienna (AT).
- 23 Sept. 2021, invited speaker "Compound risk: climate, disasters, finance, pandemics", **CREDIT conference** 2021, Venice (IT).
- 1 Sept. 2021: Central Banks and Regulators panel, **GRASFI conference 2021.**
- 1 Sept. 2021: invited speaker, "Divesting from Carbon-intensive towards a Sustainable and Green Infrastructure", **European Forum Alpbach 2021.**
- 28 Jan. 2021: invited speaker, "Virtual Seminar on Climate Economics", Federal Reserve Bank of San Francisco.
- 10 Dec. 2020: "Green Finance Research Advances", Banque de France.
- 28 Oct .2020: speaker, **World Bank** workshop "Compound risks: combining COVID and climate shocks in macroeconomic models for stronger financial resilience".
- 22 Oct. 2020: keynote speaker, **National Bank of Belgium**'s Conference 2020 "Climate Change: Economic Impact and Challenges for Central Banks and the Financial System".
- 21 Oct. 2020: invited speaker, **Bank for International Settlements** (BIS)'s International Conference on Central Banks Supervision 2020.
- 4 Sept. 2020: invited speaker, **OECD** workshop "Climate Change: assumptions, uncertainties and surprises, OECD (virtual).
- 26 August 2020: invited speaker, Austrian National Bank (OeNB)'s summer school.
- 27 Febr. 2020: invited speaker, European Insurance and Occupational Pension Authority (EIOPA), Frankfurt (GE).
- 16 Jan. 2019: moderator and speaker, **FINEXUS2020 conference** "Climate change and financial risks", University of Zurich, Zurich (CH).
- 6 Dec. 2019: invited speaker, European Systemic Risk Board (ESRB) workshop "Wind of Change: Climate Risk and Dynamic Stress Testing", Austrian National Bank (OeNB), Vienna (AT).
- 25 Nov. 2019: invited speaker, Green Finance Research Advances, Paris (FR).
- 18-19 Nov. 2019: keynote speaker, European Banking Authority European Commission Joint Research Center workshop "Banking regulation and sustainability", Ispra (IT).
- 21 Oct. 2019: Invited speaker, World Bank Group seminar series, DC (USA).

- 18 Oct. 2019: invited speaker at the **World Bank Group International Monetary Fund Annual Meeting 2019** "Climate change and Minsky moments".
- 26-27 Sept. 2019: keynote speaker, **CREDIT conference** "Assessing and Managing Climate Change Risk: Opportunities for Financial Institutions", Ca' Foscari University Venice (IT).
- 6 Sept. 2019: keynote speaker, **European Insurance and Pension Funds Authority (EIOPA**) seminar on "Quantitative techniques in financial stability", Frankfurt (GE).
- 22 April 2019: invited speaker, **Stanford University**'s Precourt Institute of Energy, Energy Seminar, Stanford (USA).

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