

<b>Part A. PERSONAL INFORMATION</b>		<b>CV date</b>	12/07/2024
First and Family name	Mònica Serrano		
Social Security, Passport, ID number		Date of birth	23/04/1975
Researcher numbers	Researcher ID	H-6489-2015	
	Orcid code	0000-0003-1190-5406	

### A.1. Current position

Name of University/Institution	University of Barcelona		
Department	Department of Economics, Faculty of Economics and Business		
Address and Country	Av. Diagonal, 696, 08034, Barcelona, Spain		
Phone number		E-mail	monica.serrano@ub.edu
Current position	Associate professor	From	2015
UNESCO code	530304 - Input – output		
Keywords	Multisectoral analysis; Structural change: Input-Output analysis; Environment and economics; Gender and economics; Household production; Income distribution		

### A.2. Education

Studies	University	Year
Bachelor in Economics	University of Barcelona	1999
Master in Economics	University of Barcelona	2002
European PhD in Economics	University of Barcelona	2008

### A.3. JCR articles, h Index, thesis supervised...

Research activity recognition by AQU (6-years Research Sections): 2 (23/09/2011) (28/06/2017)  
 Supervised PhD Thesis 3 finished and 4 ongoing: Rocchi, P. (30/11/2015), Toro, F. (14/10/2022); Parajuà, N. (20/12/2023).  
 Total citations: 259 (WebofScience), 297 (Scopus), 874 (Google Scholar)  
 Q1 Publications: 7 + 1 accepted in press.  
 h-index: 7 (WebofScience), 7 (Scopus), 13 (Google Scholar)

### Part B. CV SUMMARY

My scientific trajectory is characterized by the application of input-output analysis techniques in two main research lines: domestic production and ecological economics.

In 2000 I started my research in the analysis of the interdependencies between domestic production and the market economy by participating in two national competitive research projects (2000-2002 and 2003-2005) and being part of a consolidated interdisciplinary research group. Internationally, I take a stay at the Manchester School of Management-UMIST in the United Kingdom that allows me to work in my master's thesis "A new input output analysis: the market and household interdependences." The results of this work were presented at an international congress (IAFFE; 2002) and were published in a book (Carrasco et al., 2003). Subsequently, in 2006 this work served as a theoretical basis for the elaboration of the first satellite accounting of domestic production of Catalonia that was developed for the IDESCAT of the Generalitat de Catalunya. The results were published in the book Carrasco & Serrano (2007) and in the paper Carrasco & Serrano (2011), **Feminist Economics, 2Q, IF 0.62, 1 Scopus citation**. However, by the end of 2004 due to the lack of data to deepen in the subject I decided to change the line of investigation.

In December of 2008 I obtained the title of European doctor in economics with the thesis "Economic activity and atmospheric pollution in Spain: an input-output approach". The results of the doctoral thesis were presented at the main international and national congress of input-output analysis and the environment organized by the scientific societies IIOA, SHAI0, EAERE, EES, ...) and 4 articles were published in indexed journals (it is important the contribution of Roca and Serrano (2007) **Ecological Economics, 1Q, FI 1.55; 86 Scopus and 72 T.Reuters citations**).

Within this second line of research I participate in various national competitive research projects (2006-2009, 2010-2012, 2013-2015) and is part of two consolidated research groups of the Generalitat of Catalonia. Internationally, I made two rooms at the Universtiy of Groningen. The first (2007-2008) allows me to contact and establish connections with one of the world's leading groups in input-output analysis by publishing the work **Serrano and Dietzenbacher (2010) Ecological Economics, 1Q, FI 2.75, 50 Scopus and 46 T.Reuters citations**. The second (2011) I participated in phase II of the WIOD European project and I publish the work **Steenge and Serrano (2012), Economic Systems Research, 1Q, FI 2.10, citations (4 Scopus, 1 in T. Reuters)**.

At the same time, several investigations of special relevance were carried out for the public administration (the first account of the water of Catalonia carried out for the IDESCAT of the Generalitat de Catalunya, **Roca and Serrano, 2012**) and of transferring to society (book **Roca et al., 2013**).

Currently my research focuses on the deflation of prices in the accounting of international trade issues (**Arto et al. 2014, Ecological Economics, 1Q, IF 2.86, 11 Scopus and 10 T. Reuters citations**), environmental taxation (**Rocchi et al., 2014, Energy Policy, IF 2.57, 1Q, 9 Scopus and 10 T.Reuters citations and Rochi et al., 2018 Ecological Economics, IF 3.90, 1Q, 1 Scopus and T.Reuters citations**), inequality of income and emissions, and gender and emissions. The results of the various work documents on these topics have been presented at different international conferences and are expected to be published in journals of high international impact. Currently, I'm enrolled in several projects form the European Union (TRIGGER, CHARM-EU, TORCH,ToBe).

## Part C. RELEVANT MERITS

### C.1. Publications (including books)

#### Journals:

1. Toro, F., Fernández-Vázquez, E., Serrano, M. (2024). "Who is brining Who brings emissions home? Comparing female and male breadwinner households by matching techniques", *Energy Policy*, 190, 114144, doi.org/10.1016/j.enpol.2024.114144
2. Carrascal-Incera, A., Fernández-Vázquez, E., Serrano, M (2021). "Covid-19 and its economic effects: Supply chain disruptions and behavioural changes", *Revista Galega de Economía* 30(1): 1-4. <https://revistas.usc.gal/index.php/rge/article/view/7717>
3. Steenge, B., Carrascal, A., Serrano, M. (2020). "Income distributions in multi-sector analysis: Miyazawa's fundamental equation of income formation revisited", *Structural Change and Economic Dynamics*, doi:10.1016/j.strueco.2019.04.007.
4. Duarte, R., Sarasa, C., Serrano, M. (2019). "Structural change and female participation in recent economic growth: a multisectoral analysis for the Spanish economy", *Economic Systems Resarch*, doi: 10.1080/09535314.2019.1589425.
5. Serrano, M. (2019) "Consumo privado de los hogares y emisiones de gases de efecto invernadero en España", *Índice. Revista de Estadística y Sociedad*, 72: 25-27, 2019. (Title in English: *Household private consumption and Greenhouse gases in Spain.*)
6. Rocchi, P., Serrano, M., Roca, J., Arto, I. (2018). "Border carbon adjustments based on avoided emissions: addressing the challenge of its design", *Ecological Economics*, 145: 126-136, doi: 10.1016/j.ecolecon.2017.08.003.
7. Abio, G., Alcañiz, M., Gómez-Puig, M., Rubert, G., Serrano, M., Stoyanova, A., Vilalta, M. (2017). "Retaking a course in economics: Innovative teaching strategies to improve academic performance in groups of low-performing students", *Innovations in Education and Teaching International*, 2017, doi: 10.1080/14703297.2017.1389289.
8. Rocchi, P.; Serrano, M.; Roca, J. (2014). "The reform of the European Energy Tax Directive: exploring potential economic impacts in the EU27", *Energy Policy*, 75: 341-353, doi: 10.1016/j.enpol.2014.09.022
9. Arto, I.; Roca, J.; Serrano, M. (2014). "Measuring emissions avoided by international trade: accounting for price differences", *Ecological Economics*, 97(1): 93-100, doi: 10.1016/j.ecolecon.2013.11.005
10. Steenge, A.; Serrano, M. (2012). "Income distributions in input-output models", *Economic Systems Research*, 24(4): 391-412, doi: 10.1080/09535314.2012.715281

11. Arto, I.; Roca, J.; Serrano, M. (2012) "Emisiones territoriales y fuga de emisiones. Análisis del caso español", *Revista Iberoamericana de Economía Ecológica (REVIBEC)*, 18(5): 73-87. (Title in English: *Territorial emissions and carbon leakage. Analysis of the Spanish case.*)
12. Carrasco, C.; Serrano, M. (2011). "Lights and shadows of satellite accounts of household production. The case of Catalonia", *Feminist Economics*, 17(2): 63-85, doi: 10.1080/13545701.2011.573483
13. Serrano, M.; Dietzenbacher, E. (2010). "Responsibility and trade emission balance: an evaluation of approaches", *Ecological Economics*, 69(11): 2224-2232, doi: 10.1016/j.ecolecon.2010.06.008
14. Roca, J.; Serrano, M. (2008) "Comercio internacional y responsabilidades en las emisiones de gases de efecto invernadero. El caso español 1995-2000" (with Jordi Roca), *Ekonomiaz*, 67 (1): 284-301. (Title in English: *International trade and responsibility in greenhouse gas emissions. The Spanish case 1995-2000.*)
15. Roca, J.; Serrano, M. (2008) "Comercio exterior y contaminación atmosférica en España: un análisis input-output", *Cuadernos Aragoneses de Economía*, 18(1): 9-34, 2008. (Title in English: *Trade and atmospheric pollution in Spain: an input-output approach.*)
16. Roca, J.; Serrano, M. (2007). "Income growth and atmospheric pollution in Spain: an input-output approach", *Ecological Economics*, 63 (1): 230-242, doi: doi.org/10.1016/j.ecolecon.2006.11.012
17. Serrano, M. (2005) "Emisiones de gases de efecto invernadero y estructuras de consumo en España", *Revista de Economía Crítica*, 4: 89-114. (Title in English: *Greenhouse gases emissions and household consumption pattern in Spain.*)

#### Books and chapters in books:

1. Serrano, M. (2023) "Environmental Input-Output Analysis" in E. Padilla-Rosa, J. Ramos-Martín (Ed.) *Elgar Encyclopedia of Ecological Economics*, Elgar Encyclopedias in Economics and Finance, Cheltenham, Northampton: Edward Elgar: 220-227 <http://dx.doi.org/10.4337/9781802200416>
2. Toro, F., Fernández-Vázquez, E., Serrano, M. (2023) "The Gender–energy–poverty Nexus Under Review: A Longitudinal Study for Spain" in Bardazzi, R., Paziienza, M.G. (Ed.) *Vulnerable Households in the Energy Transition*, Studies in Energy, Resource and Environmental Economics, Cham: Springer: 117-136. [https://doi.org/10.1007/978-3-031-35684-1\\_6](https://doi.org/10.1007/978-3-031-35684-1_6)
3. Carrascal-Incera, A., Fernández Vázquez, E., Serrano, M. (2022) "Is It the End of World (Trade) as We Know It? Changes in Global Trade Patterns after the Outbreak of COVID-19", in J. Murray, A. Owen, M. Simas (Ed.) *A Triple Bottom Line Analysis of Global Consumption. Economic, Environmental, and Social Effects of Pre-Pandemic World Trade 1990–2015*, Chapter 4, New York: Taylor & Francis (Routledge), 2022: 11pp. ISBN 978-981-49-6801-0. <https://doi.org/10.1201/9781003256885>
4. Serrano, M., Dietzenbacher, E. (2020) "Responsibility and trade emission balances: an evaluation of approaches" in E. Dietzenbacher, M. Lahr, M. Lenzen (Ed.), *Recent Developments in Input-Output Analysis. The International Library of Critical Writings in Economics Series, Volum II, Num 373*, Cheltenham, Northampton: Edward Elgar Publishing, 2020: 163-172;
5. Arce, G., López, L.A., Serrano, M. (2020) "Extreme Inequality and Carbon Footprint of Spanish Households", in Subramanian Senthilkannan Muthu (Ed.) *Carbon Footprints. Case Studies from the Building, Household, and Agricultural Sectors*, 35-53, Singapore: Springer Nature. ISBN 978-981-13-7915-4 ISBN 978-981-13-7916-1 (eBook). <https://doi.org/10.1007/978-981-13-7916-1>.
6. Roca, J., Rocchi, P., Serrano, M. (2018) "Paris-COP 21 and carbon pricing. Coordination challenges and carbon border measures: the case of the UE", in O. de Juan, M. Lenzen, M.A. Cadarso (Ed.) *Environmental and Economic Impacts of Decarbonization. Input-Output studies on the consequences of the 2015 Paris Agreement*, 313-333, New York: Routledge. ISBN: 978-0-415-78740-6
7. Roca, J. (coord.); Alcántara, V.; Arto, I.; Padilla, E.; Serrano, M. (2013). *La responsabilidad de la economía española en el calentamiento global*, Madrid: Los libros de la Catarata, 159 pp, ISBN: 978-84-8319-849-0.

#### **C.2. Research projects and grants**

1. "SoluTions foR mltiGatinG climate-induced hEalth tReaths (TRIGGER)", HADEA101057739, University of Bologna, Silvana di Sabatino, 01/09/2022-28/02/2027, 9.996.777€, European Union.

2. "Towards a sustainable wellbeing economy: integrated policies and transformative indicators (ToBe)", HORIZON-CL2-2022-TRANSFORMATIONS-01-101094211, 01/01/2023-28/02/2026, 2.698.655€
3. "Actividad Económica, cambio climático y políticas ambientales", PID2021-126295OB-I00, Universidad Autónoma de Barcelona, Emilio Padilla Rosa, 01/09/2022 - 31/08/2025, 64.139,00€, Ministerio de Ciencia e Innovación.
4. "¿Sistemas Agrarios Sustentables? Una interpretación histórica de la agricultura en España desde la perspectiva biofísica", HAR2015-69620-C2-1-P, Universitat de Barcelona, Enrique Tello Aragay, 01/01/2016-31/12/2018, 47.432€, Ministerio de Economía y Competitividad.
5. "Economía y cambio climático: determinantes, desigualdades y Mitigación", ECO2015-67524-R, Universidad Autónoma de Barcelona, Emilio Padilla Rosa, 01/01/2016-31/12/2018, 23.500 €, Ministerio de Economía y Competitividad.
6. "Sistemas agrarios sostenibles y transiciones en el metabolismo social: desigualdad y cambio institucional en España", HAR2012-38920-C02-02, Universidad de Barcelona, Enric Tello, 01/01/2013-31/12/2015, 85.000,00€, Ministerio de Economía y Competitividad.
7. "Actividad económica y emisiones de gases de efecto invernadero", ECO2012-34591, Universidad Autónoma de Barcelona, Emilio Padilla, 01/01/2013-31/12/2015, 14.000,00€, Ministerio de Economía y Competitividad.
8. "Organización espacial de la economía y política climática", ECO2009-11099, Universidad Autónoma de Barcelona, Jeroen van den Bergh, 01/01/2010-31/12/2014, 39.800,00€, Ministerio de Ciencia e Innovación.
9. "World Input-Output Database: Construcción and Applications", 7COSSH – COOPERATION – SHH, University of Groningen, Erik Dietzenbacher, 01/05/2009-30/04/2012, 4.000.000,00€, Unión Europea.
10. "Metabolismo social: tendencias, conflictos y respuestas", SEJ2006-15219, Universidad Autónoma de Barcelona, Joan Martínez Alier, 01/10/2006-30/09/2009, 64.500,00€, Ministerio de Educación y Ciencia.

### C.3. Contracts

1. "Structural change and female labour participation in Spain (1980-2015)", University of Barcelona, Mònica Serrano, 19/09/2019-19/09/2023, 3.000€, Conveni de col·laboració per al desenvolupament del projecte de recerca.
2. "Pymedeascat", Universidad de Barcelona, Jordi Solé, 01/06/2020-31/12/2021, Programa de Recerca de la Generalitat de Catalunya.
3. "La economía española y las responsabilidades en la dinámica de las emisiones de gases de efecto invernadero: nuevas perspectivas", Universidad de Barcelona, Jordi Roca, 19/10/2009-18/10/2011, 117.970,00€, Fundación General de la Universidad Complutense de Madrid (CPFU – FUHEM CIP – ECOSOCIAL).
4. "Elaboración de la contabilidad satélite del agua de Catalunya, 2005", Universidad de Barcelona, Jordi Roca, 09/04/2010-08/01/2011, 17.500,00€, Departament de Medi Ambient i Habitatge de la Generalitat de Catalunya.
5. "Usos económicos del agua en Cataluña: Estudio sobre las fuentes de datos y la información que proporciona", Universidad de Barcelona, Jordi Roca, 20.300 €, Departament de Medi Ambient i Habitatge de la Generalitat de Catalunya, 2009-P01D, 20.300 €.
6. "Cuenta satélite de la producción doméstica de los hogares de Cataluña, 2001-2002", Universidad de Barcelona, Cristina Carrasco, 01/01/2006-31/12/2006, 24.610,00€, Institut d'Estadística de Catalunya de la Generalitat de Catalunya, Institut Català de les Dones de la Generalitat de Catalunya.

### C.4. Reviewer for scientific journals

#### Reviewer for international scientific journals:

- Annals of Regional Science (2021), Climate Policy (2016-2018), Ecological Economics (2008-2021), Economic Analysis and Policy (2018), Economic Modelling (2010-2018), Economic Systems Research (2010-2023), Economies (2019), Energy Policy (2009-2014), Energy Systems (2015), Ensayos Revista de Economía (2015), Environmental and Resource Economics (2012-2022), Environmental Research Letter (2021), Environmental Science and Technology (2009-2016), International Journal of

Environmental Technology and Management (2016), Journal of Industrial Ecology (2014-2017), Journal of Systems Science and Complexity (2017), Regio (2014), Regional Science, Policy and Practice (2018), Regional Studies (2022), Resources (2022), Resources, Conservation and Recycling (2014), Revibec (2012), Review of Regional Studies (2009), Revista Sociedad y Economía (2013), Sustainability (2017-2020), World Development (2022).

- Member of editor team of Ecological Economics 2021-2023.

## C.5. Advisor activity

### PhD Thesis

1. Rocchi, P. (2015) "Essays on atmospheric emissions and environmental policy", Universidad de Barcelona, Defence: 30/11/2015. Grade: excellent cum-laude (co-advisor J. Roca).
  - o Positions:
    - Research position at European Institute on Economics and the Environment (EIEE), CMCC, Milan, Italy.
    - Research position at the Joint Research Centre (JRC), European Commission. From 2017 to 2021 at the Circular Economy and Industrial Leadership Unit, Seville, Spain. From 2021 at the Knowledge for Finance, Innovation and Growth Unit, Ispra, Italy.
2. Toro, F. (2022) "Pollution from Spanish households' consumption through space, time and gender dimensions", University of Oviedo, Defence 14/10/2022. Grade: excellent cum-laude (co-advisor E. Fernández-Vázquez).
  - o Positions:
    - Post-doctoral researcher of TRIGGER European Project from 2023
3. Parajuá, N. (2023) "Estudio del metabolismo socio-ecológico a través de la Tabla Input-Output Ambientalmente Extendida; Análisis en perspectiva histórica como base deliberativa para las políticas sustentables futuras" (co-advisor Enric Tello).
  - o Positions:
    - Post-doctoral researcher at UB

### On going PhD Thesis

1. Lioussis, M.P. "Services trade: economic, environmental and social effects in a globalised world", started 2020-2021, defence expected Oct. 2024.
2. Dilek, G. "Essays on the carbon border adjustment mechanism" (co-advisor Jordi Teixidó), started 2021-2022, defence expected Dec. 2025.
3. Albrecht, T. "Essays on the renewable energy transition" (co-advisor Enrique López-Bazo), started 2021-2022, defence expected Dec. 2025.
4. Zhang, R. "Essays on income distribution and inequality" (co-advisor André Carrascal-Incera), started 2022-2023, defence expected 2026.

### Master Thesis:

1. Rocchi, P. (2010) "Environmental structural decomposition analysis of Italian emissions, 1995-2005", Universidad Autónoma de Barcelona, Facultad de CC.EE.EE, grade (9.3).
2. Sanz Fernández, P. (2016) "The Environmental Impact of International Trade: Measuring How Changes in Trade Lead to Different Levels of Polluting Emissions", Universidad de Barcelona, Facultad de Economía y Empresa, grade (8.1).
3. Toro, F. (2018) "Who pollutes more? Gender differences in consumptions patterns", Universidad de Barcelona, Facultad de Economía y Empresa, grade (8.8).
4. Shi, G. (2022) "Urban-Rural inequality in China: new evidence from Input-Output Analysis", Universidad de Barcelona, Facultad de Economía y Empresa, grade (8.2)

## C.6. Management of other scientific activities

1. Academic Secretary of the Faculty of Economics and Business, University of Barcelona from 2022.
2. Editor of Ecological Economics from 2021 to 2023.
3. Elected council member of the International Input-Output Association (IIOA) from 2021.
4. Secretary of Sociedad Hispanoamericana de Análisis Input-Output (SHAI) from 2005 to 2020.
5. Secretary of the executive committee of BEAT, UB Research Institute from 2016

6. Director of the research line “Environment, Sustainability and Well-Being” of BEAT, UB Research Institute from 2016.
7. VI Spanish Input-Output Conference, Universidad de Barcelona-Universidad Autónoma de Barcelona-IDESCAT, Barcelona, España, 7-9 septiembre, 2015. President of Local Committee.
8. I Summer School 2014, “Economic growth, sectorial composition, trade and environment”, Facultad de Economía y Empresa, Universidad de Barcelona, España, 7-11 julio, 2014. Academic Scientific Coordinator for the 2014 edition.
9. I EUNIOS Workshop, University of Groningen, Groningen, The Netherlands, 2008. Member of the local committee.
10. Tiempos, trabajos y género, Facultad de Economía y Empresa, Universidad de Barcelona, España, 2001. Member of the local committee.