

FRANCISCO RODRÍGUEZ FERNÁNDEZ

Contact details

Address: Departamento de Teoría e Historia Económica

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Campus Cartuja s/n, 18071- Granada.

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Current positions

Catedrático de Universidad - Professor of Economics – University of Granada

Head Financial and Tech Analysis – Funcas Foundation

Past positions

Senior Economist- Funcas

Associate Professor of Economics – University of Granada

Research Associate – University of Granada

Main research interests

Finance and Technology - AI

Economics of Banking

Bank regulation

Financial Education and Behavior

Finance and economic growth

Industrial Organization

Payment media

Education

PhD in Economics – University of Granada (visiting University of Modena and University of Bologna)

Post-Doc Visiting Research: Bangor Business School, European Central Bank, Federal Reserve Bank of Chicago.

Graduate Visiting Research: University of Modena, University of Bologna, Bangor Business School

BA Business and Economics – University of Granada

Consulting activities

European Commission

European Research Framework Programme

Spanish Ministry of Labor

Bankia

KPMG

Euro 6000

BMN

Prosegur

Other academic positions

Vice-Dean Research –School of Economics, University of Granada: 2007-2009

Deputy Director, Department of Economics, University of Granada: 2003-2005

Publications in JCR journals

"Cryptocurrency ownership and cognitive biases in perceived financial literacy." (2025) **Journal of Behavioral and Experimental Finance**, 45, 101019. (with P. Cuadros and S. Carbó)

Artificial intelligence and economic psychology: Toward a theory of algorithmic cognitive influence. (2025) **AI & Society**.

Mobility restrictions and payment choices: The case of the Covid-19 pandemic. **Journal of Behavioral and Experimental Finance**, 40, 100850. (with P. Cuadros and S. Carbó)

"Exploring Neuroanatomy and Neuropsychology in digital financial decision-making: betrayal aversion and risk behavior", **Brain Imaging and Behaviour**, volume 19, 2025, forthcoming (with S. Carbo and R. Martin).

"Digital Innovation and De-Branching in the Banking Industry: Customer Perception and Satisfaction", **Global Policy**, 2024; 15 (Suppl. 1): 8–20. DOI: 10.1111/1758-5899.13313. 2024 (with S. Carbo, P. Cuadros, J. Sanchez)

"Mobility restrictions and payment choices: the case of the Covid-19 pandemic", **Journal of Behavioral and Experimental Finance**, 40, 100850, 2024 <https://doi.org/10.1016/j.jbef.2023.100850> (with S. Carbo, P. Cuadros, J. Sanchez)

"Assessing Incentives to Increase Digital Payment Acceptance and Usage: A Machine Learning Approach", **PLoS ONE**, 17(11): e0276203. <https://doi.org/10.1371/journal.pone.0276203>, 2022. (with Allen, J., Carbó Valverde, S., Chakravorti, and O. Pinar Ardic),

"Entrepreneurial, institutional and financial strategies for FinTech profitability", **Financial Innovation**, 8:15, DOI: <https://doi.org/10.1186/s40854-021-00325-2>, SpringerOpen. 60), 2022 (with S. Carbo and P. Cuadros)

"The Effects of Negative Interest Rates: A Literature Review and Additional Evidence on the Performance of the European Banking Sector", **The European Journal of Finance**, vol. 27, n° 18, págs. 1908–1938 DOI:10.1080/1351847X.2021.1927784, 2021 (with S. Carbo and P. Cuadros)

"Underwriting bank bonds: information sharing, certification and distribution networks", **Journal of Corporate Finance**, vol. 70, 102057, DOI: <https://doi.org/10.1016/j.jcorpfin.2021.102057>. 2021 (with S. Carbo and A. Saunders)

"The Effects of Negative Interest Rates: A Literature Review and Additional Evidence on the Performance of the European Banking Sector", **The European Journal of Finance**, vol. 27, forthcoming

Non-pricing drivers of underwriters' market shares in corporate bond markets", **International Review of Economics and Finance**, vol. 76, 671-693. 2021. (with S. Carbo and P. Cuadros)

"The impact of lending relationships on the choice and structure of bond underwriting syndicates", **Journal of International Financial Markets, Institutions and Money**, DOI: <https://doi.org/10.1016/j.intfin.2021.101403>, vol. 74, 101403. 2021. (with S. Carbo and P. Cuadros)

"A machine learning approach to the digitalization of bank customers: evidence from random and causal forests", **PLoS ONE** 15(10):e0240362. <https://doi.org/10.1371/journal.pone.0240362> 2020 (with S. Carbo and P. Cuadros)

"Brain Sustrates explain differences in the adoption and degree of financial digitalization", **Nature-Scientific Reports**, vol. 10,17512(2020), <https://doi.org/10.1038/s41598-020-74554-3>. 2020. (with S Carbo, J. Lacomba, F. Lagos and J. Verdejo)

"The effect of banks' IT investments on the digitalization of their customers", **Global Policy**, Volumen 11, Special Issue, Supplement 1, January 2020, 9-17. 2020 (with S.Carbo and P. Cuadros)

Financial Digitalization: Banks, Fintech, Bigtech and Consumers, **Journal of Financial Management, Markets and Institutions**, vol 8, nº 1, págs 2040001-1 - 2040001-13. (with S. Carbo)

"Do bank bailouts have an impact on the underwriting business?" **Journal of Financial Stability**, vol. 49, 100756, <https://doi.org/10.1016/j.jfs.2020.100756>. 2020 (with S. Carbo and P. Cuadros)

"Do banks game on dynamic provisioning?",**Journal of Financial Management, Markets and Institutions**, vol 6, nº 1, 1850002-1 - 1850002-22. 2018 (with S. Carbo)

"Disentangling the effects of household financial constraints and risk profile on mortgage rates", **Journal of Real Estate Finance and Economics**, vol 56, nº1, págs. 76-100. (with S. Carbo and S. Mayordomo). 2018

"Do banks and industrial companies have equal access to reputable underwriters in debt markets?", **Journal of Corporate Finance**, vol. 45, 176-202 (with S. Carbo and P. Cuadros). 2017.

"Are Covered Bonds a Substitute for Mortgage- Backed Securities?", **Journal of Economic Policy Reform**, vol. 20, 238-253 (with S. Carbo and R. Rosen). 2017

"Monetary policy, implicit interest rate, and relative net trade credit", **Revista de Economía Aplicada**, vol XXV. 73, 21-54, (with S. Carbo and J. Mansilla). 2017.

"The effects of bank market power in short-term and long-term firm credit availability and investment", **Spanish Journal of Finance and Accounting**, vol. 46, f1-27. (with S. Carbo and J. Mansilla). 2017.

"The Role of Interchange Fees in Two-sided Markets: An Empirical Investigation on Payment Cards", **The Review of Economics and Statistics**, vol. 98, 367-381 (With S. Carbo and S. Chakravorti). 2016.

"Trade credit, the Financial Crisis and Firms Access to Finance", **Journal of Money, Credit and Banking**, vol.48, 113-143. (with S. Carbo and G. Udell). 2016.

"The diffusion pattern of non-cash payments: evidence from China", **International Journal of Technology Management**, vol. 70, 44-57 (with S. Carbo and M. Qi). 2016.

"The impact of securitization on credit rationing: empirical evidence", **Journal of Financial Stability**, 20, 36-50 (With S. Carbo and H. Degryse). 2015

"ATM withdrawals, debit card transactions at the point of sale and the demand for currency", **SERIEs**, vol. 5, 5, 399-417. (with S. Carbo). 2014

"Safety-net benefits conferred on difficult-to-fail-and-unwind banks in the US and EU before and during the great recession", **Journal of Banking and Finance**, vol. 37,1845-1859. (with S. Carbo and E. Kane). 2013

"Feedback Loop Effects in Payment Card Markets: Empirical Evidence", **Review of Network Economics**, vol. 11, Issue 2, article 2. 2012 (with S. Carbo and J.M. Liñares).

"Securitization, risk transferring and financial stability: the case of Spain" **Journal of International Money and Finance**, vol. 31, págs 80-101. 2012. (with S. Carbo and D. Marques).

"Exploiting Old Customers and Attracting New Ones: the case of Bank Deposit Pricing", **European Economic Review**, vol. 55, 903-915 (with S. Carbo and T. Hannan) 2011.

"Regulatory arbitrage in cross-border banking mergers within the EU", **Journal of Money, Credit and Banking**, vol. 44, 1609-1629. (with S. Carbó and E. Kane) 2012.

"Bank market power and SME financing constraints, **Review of Finance**, vol. 13: 309-340 (with S. Carbó and G. Udell), 2009.

"Evidence of Differences in the Effectiveness of Safety Net Management in European Union Countries", *Journal of Financial Services Research*, vol. 34: 151-176 (with S. Carbo and E. Kane), 2008.

"The Economics of Credit Cards, Debit Cards and ATMs: A Survey and Some New Evidence", *Journal of Banking and Finance*, vol. 32:1468-1483 (with B. Scholnick, N. Massoud, A. Saunders and S. Carbó), 2008.

"The determinants of bank margins in European banking", *Journal of Banking and Finance*, vol. 31: 2043-2063 (with S. Carbó). 2007.

"Financial Innovations in Banking: impact on regional growth", *Regional Studies*, vol. 41: 311-326 (with S. Carbó and R. Lopez). 2007.

"Operaciones fuera de balance y economías de escala en el sector bancario español", *Investigaciones Económicas*, vol. XXIX (2): 389-430. (with S. Carbó). 2005.

"New Evidence of Scope Economies among Lending, Deposit-taking, Loan Commitments and Mutual Fund Activities", *Journal of Economics and Business*, vol. 57(3):187-207. (with S. Carbó).

"The Finance-Growth Nexus. A Regional Perspective", *European Urban and Regional Studies*, vol. 11(4): 339-354. (with S. Carbó). 2004.

"Bank Deregulation is Better than Mergers", *Journal of International Financial Markets, Institutions and Money*, vol. 13(5): 429-449. (with S. Carbó and D. Humphrey). 2003

"Medición de la competencia en los mercados bancarios regionales", *Revista de Economía Aplicada*, vol. XI (n. 32): 5-33 (with S. Carbo and F. Rodriguez). 2003.

"Deregulation, Bank Competition and Regional Growth", *Regional Studies*, vol. 37(3): 227-237. (with S. Carbó and D. Humphrey). 2003

Books and book chapters

Santiago Carbó, Rafael López and Francisco Rodríguez, (2001), "**La concentración regional y provincial del sector bancario en España (1986-1999)**", en Gardener, E.P.M. y otros, Tres análisis sobre Cajas de Ahorros y sistema financiero, Estudios de la Fundación

nº 10, Fundación de las Cajas de Ahorros Confederadas para la Investigación Económica y Social, Madrid, págs.157-206. ISBN: 84-89116-03-2.

Santiago Carbó and Francisco Rodríguez (2006), "**Pricing strategies in European banking: specialization, technology and intertemporal smoothing**", en Balling, M., Lierman, F. y A. Mullineaux (eds.), Competition and Profitability in European Financial Services. Strategic, systemic and policy issues, Routledge, Taylor and Francis Group, Abingdon, Oxon, Reino Unido, Chapter 9. ISBN: 0-415-38494-X.

Santiago Carbó and Francisco Rodríguez (2007), "**New approaches to size and efficiency in banking**" en Eleuterio Vallelado y Philip Molyneux (editores), Size and efficiency in the European banking industry, Editorial Comares, Granada, págs. 1-20. ISBN: 978-84-9836-313-5.

Santiago Carbó and Francisco Rodríguez (2009), "**El sistema financiero en Andalucía**", en J. Ignacio García Pérez (coord.) Andalucía. El Campo de las Artes y las Ciencias en Andalucía. Volumen I. Evolución reciente de la estructura económica y financiera en Andalucía, Capítulo 4, págs. 135-157, BBVA, Sevilla, depósito legal: M-28647-2009.

Santiago Carbó and Francisco Rodríguez (2011), "**Hábitos de consumo y crédito bancario**", en J. Ignacio García Pérez (coord.) Andalucía. El Campo de las Artes y las Ciencias en Andalucía. Volumen II. Las decisiones económicas a largo plazo en la economía andaluza: emigración, ahorro e inversión, Capítulo 4, págs. 113-132, BBVA, Sevilla, depósito legal: M-45571-2010.

Santiago Carbó-Valverde, David Humphrey and Francisco Rodríguez-Fernández,(2011), "**A Revenue-Based Frontier Measure of Banking competition**", en Philip Molyneux (ed.), Bank Performance, Risk and Firm Financing, Palgrave MacMillan, Basingstoke (UK), Capítulo 6, págs. 135-153. ISBN: 978-0-230-31335-4.

Santiago Carbó and Francisco Rodríguez (2012), "**Nuevas perspectivas para el crédito relacional a la Pyme en España**", Papeles de la Fundación , nº 45, titulado "Pequeña y mediana empresa: impacto y retos de la crisis en su financiación", págs. 163-178, Fundación de Estudios Financieros. ISBN: 978-84615-6781-2.

Santiago Carbó and Francisco Rodríguez, (2014) "**Reestructuración bancaria, concentración y calidad de los préstamos en España**", en Santiago Carbó y otros, Las claves del crédito bancario tras la crisis, Estudios de la Fundación nº 67, Funcas, Madrid, págs.13-32. ISBN: 978-84-15722-14-4.

Santiago Carbó and Francisco Rodríguez, (2014) "**Provisiones para insolvencias y calidad de los préstamos**", en Santiago Carbó y otros, Las claves del crédito bancario tras la crisis,

Estudios de la Fundación nº 67, Funcas, Madrid, págs.153-176. ISBN: 978-84-15722-14-4.

Santiago Carbó and Francisco Rodríguez (2014), **"El impacto de la reestructuración del sistema bancario español sobre la evolución del crédito"**, en Los retos de la financiación del sector empresarial, págs. 79-89, Fundación de Estudios Financieros. ISBN: 978-84-697-1608-5.

Santiago Carbó and Francisco Rodríguez (2015), **"Nuevas perspectivas para el crédito relacional a la Pyme en España"**, Papeles de la Fundación , nº 45, titulado "Pequeña y mediana empresa: impacto y retos de la crisis en su financiación", págs. 163-178, Fundación de Estudios Financieros. ISBN: 978-84615-6781-2.

Main research projects

2020-2025: Leading researcher. Spanish Ministry of Science and Innovation. Proyecto PID2020-118883GB-I00 Servicios financieros minoristas tras la pandemia: mercados, estructura y comportamiento.

2015-2017: Leading researcher. Spanish Ministry of Science and Innovation. Proyecto de investigación ECO2014-5958P (Convocatoria 2014), subvencionado por la Subdirección General de Proyectos de Investigación (Ministerio de Ciencia e Innovación). Título del proyecto: "Hacia un nuevo sector bancario: factores de cambio, metodologías e impacto en la economía real".

2012-2014: Leading researcher. Spanish Ministry of Science and Innovation. Proyecto de investigación ECO2011-27954 (Convocatoria 2011), subvencionado por la Subdirección General de Proyectos de Investigación (Ministerio de Ciencia e Innovación). Título del proyecto: "Regulación financiera y sector bancario en tiempos de inestabilidad: mecanismos de prevención y resolución de crisis".

2011-2016: Special research collaboration/ European Commission 7th Framework Programme: Financialisation, Economy, Society and Sustainable Development (FESSUD).

2009-2012: Leading researcher – Science and Innovation Department, Andalusia Government. Proyecto de Investigación de Excelencia P08-SEJ-03781 (convocatoria 2008), subvencionado por la Consejería de Innovación, Ciencia y Empresa de la Junta de Andalucía. Título del proyecto: "Movilidad, costes de cambio e innovación tecnológica en los servicios minoristas: aplicaciones del análisis de los servicios financieros minoristas".

2009-2011: Researcher – Spanish Ministry of Science and Innovation. Proyecto de investigación ECO2008-05243/ECON (Convocatoria 2008), subvencionado por la

Subdirección General de Proyectos de Investigación (Ministerio de Ciencia e Innovación) y FEDER. Título del proyecto: "Organización industrial para la economía bancaria: mercados relevantes, competencia y costes de cambio".

2005-2007: Researcher – BBVA grant / Ayuda a la investigación en Ciencia Sociales, para Grupos de Excelencia, otorgada por la Fundación BBVA. Proyecto de investigación: "Los sistemas de pago minoristas en Europa y Estados Unidos: Lecciones para la integración de los sistemas de pagos europeos y evaluación de las estrategias de los sectores bancarios".

2003: Special research collaboration – European Union Framework Program. "European Integration, Financial Systems and Corporate Performance" Special Service Agreement IB-2002-SSA-O-00046 con Intech, The United Nations University). Contrato con la European Union, DG Research (Contract HPSE-CT-1999-00039). Investigador responsable: Dr Anthony Bartzokas de The United Nations University/INTECH de Maastricht (Holanda).

Research grants and visiting fellowships

2011: Research contract/Visiting: European Central Bank (November)

2008: Visiting research: Federal Reserve Bank of Chicago (May-June)

1999: Visiting research grant. Spanish Ministry of Science and Innovation: Bangor University.

1998: Pre-doctoral visiting research: Università degli Studi di Bologna (Italy).

1998-1999: Spanish Ministry of Education and Science. Research competitive grant.

1997-1997: Socrates post-doc grant. Università degli Studi di Modena (Italy).

1996-1997: Spanish Ministry of Education and Science. Part-time teaching and research grant.

Participation in conferences

Annual Industrial Organization Conference (USA): 2007, 2008, 2009, 2011, 2012

ASSA Meetings: 2009, 2011

Australasian Finance and Banking Conference (Australia): 2011, 2014

Bank Structure Conference (Federal Reserve Bank of Chicago): 2006, 2007, 2008, 2011

Conference on "Countercyclical Capital Regulation" (Federal Reserve Bank of Cleveland): 2010

Conference on Banking Regulation-Integration and Financial Stability (Centre for European Economic Research (ZEW)) (Mannheim, Germany), 2007

Conference on Payment Markets: Theory, Evidence and Policy" (Federal Reserve Bank of Chicago/University of Granada): 2010

EARIE - Annual Conference of the European Association for Research in Industrial Economics: 2002, 2007

Encuentro de Economía Aplicada: 2000, 2001, 2002

European Association of University Teachers of Banking and Finance (Europe): 1999, 2000, 2001, 2002, 2004, 2005, 2006, 2009, 2010, 2011, 2014, 2015

European Economic Association: 2006, 2009

European Finance Association: 2006

European Financial Management Association: 2012

Financial Intermediation Research Society (FIRS): 2005, 2006

Financial Management Association (Asia): 2012

Financial Management Association (Europe): 2009, 2012

Financial Management Association (USA): 2011, 2012, 2013

Foro de Finanzas (Spain): 2005, 2007, 2009, 2011

Jornadas de Economía Industrial: 2004, 2005

Midwest Finance Association (USA): 2009, 2011, 2013, 2014

Northern Finance Association: 2007

Retail payments: integration and innovation (European Central Bank/Central Bank of Netherlands): 2009

Simposio de Análisis Económico (Spain): 2005, 2006, 2009

Simposio Moneda y Crédito (Spain): 2004, 2005, 2007, 2009

Southern Finance Association (USA): 2014

Suerf Conference: 2004, 2005, 2008

The Market for Retail Financial Services: Development, Integration and Economic Effects
(European Central Bank- Center for Financial Studies Research Network): 2008

Tor Vergata Conference on Money, Banking and Finance (Rome, Italy): 2010

Western Economic Association International Conference: 2009, 2010, 2011, 2013, 2014,
2015