

Current Appointments

May. 2022 - present Deputy Director, Banco de España, Madrid.

Education

- 2010 Ph.D. Economics, CEMFI-UIIMP. Supervisor: Manuel Arellano.
Thesis Title: Essays on Growth Econometrics.
- 2007 M.Phil. Economics and Finance, CEMFI-UIIMP.
- 2004 Licenciado Economics, Universidad de Las Palmas de Gran Canaria.

Refereed Publications

1. “Determinants of Economic Growth: A Bayesian Panel Data Approach.”
The Review of Economics and Statistics, vol. 94(2), 2012.
2. “Bayesian Posterior Prediction and Meta-Analysis: An Application to the Value of Travel Time Savings.” The Annals of Regional Science, vol. 48(3), 2012.
3. “Income and Democracy: Revisiting the Evidence.”
Economics Letters, vol. 117(3), 2012 — with C. Bartolucci.
4. “Likelihood-based Estimation of Dynamic Panels with Predetermined Regressors.”
Journal of Business and Economic Statistics, vol. 31(4), 2013.
5. “Fiscal Consolidations and Economic Growth.”
Fiscal Studies, vol. 34(4), 2013 — with P. Hernández de Cos.
6. “Business Cycles and Investment in Productivity-Enhancing Activities: Evidence from Spanish firms.” Industry and Innovation, vol. 20(7), 2013 — with P. López-García and J.M. Montero.
7. “Determinants of Corporate Default: A BMA Approach.”
Applied Economics Letters, vol. 20(6), 2013 — with C. González-Aguado.
8. “What Drives a Successful Fiscal Consolidation?”
Applied Economics Letters, vol. 20(8), 2013 — with P. Hernández de Cos.
9. “TFP growth and its determinants: a model averaging approach.”
Empirical Economics, vol. 47(1), 2014 — with M. Danquah and B. Ouattara.
10. “Determinants of health-system efficiency: Evidence from OECD countries.” International Journal of Health Care Finance and Economics, vol. 14(1), 2014 — with P. Hernández de Cos.
11. “Is Infrastructure Capital Productive? A Dynamic Heterogeneous Approach.”
Journal of Applied Econometrics, vol. 30(2), 2015 — with C. Calderón and L. Servén.
12. “Model Averaging in Economics: An Overview.”
The Journal of Economic Surveys, vol. 29(1), 2015.
13. “Testing Weak Exogeneity in Cointegrated Panels.”
Applied Economics, vol. 47(30), 2015 — with L. Servén.
14. “The impact of financial regulation on current account balances.”
European Economic Review, vol. 81, 2016 — with O. Roehn.

15. “Growth Empirics in Panel Data Models under Model Uncertainty and Weak Exogeneity.” *Journal of Applied Econometrics*, vol. 31, 2016.
16. “On the Predictability of Narrative Fiscal Adjustments.” *Economics Letters*, vol. 143, 2016 — with P. Hernández de Cos.
17. “Fiscal multipliers in turbulent times: the case of Spain.” *Empirical Economics*, vol. 50, 2016 — with P. Hernández de Cos.
18. “The Public Sector Wage Premium in Spain: Evidence from Longitudinal Administrative Data.” *Labour Economics*, vol. 42, 2016 — with L. Hospido.
19. “Maximum Likelihood for Cross-lagged Panel Models with Fixed Effects.” *Socius*, vol. 3, 2017 — with P. Allison and R. Williams.
20. “Agglomeration by Export Destination: Evidence from Spain.” *Journal of Economic Geography*, vol. 18, 2018 — with R. Ramos.
21. “Growing by Learning: Firm-level Evidence on the Size-Productivity Nexus.” *SERIEs*, vol. 9, 2018.
22. “Linear Dynamic Panel-Data Estimation using Maximum Likelihood and Structural Equation Modeling.” *The Stata Journal*, vol. 18, 2018 — with P. Allison and R. Williams.
23. “Dynamic Panel Data Modeling using Maximum Likelihood: An Alternative to Arellano-Bond.” *Applied Economics*, vol. 51, 2019 — with P. Allison and R. Williams.
24. “An anatomy of the Spanish current account adjustment: the role of permanent and transitory factors.” *SERIEs*, vol. 11, 2020 — with M. Delgado-Téllez and F. Viani.
25. “Growing like Spain: 1995-2007.” *International Economic Review*, vol. 61, 2020 — with M. García-Santana, J. Pijoan-Mas and R. Ramos.
26. “On the Direct and Indirect Real Effects of Credit Supply Shocks.” *Journal of Financial Economics*, vol. 139, 2021 — with L. Alfaro and M. García-Santana.
27. “The Financial Transmission of Housing Booms: Evidence from Spain.” *American Economic Review*, vol. 111, 2021 — with A. Martin and T. Schmitz.
28. “Outsourcing and public expenditure: an aggregate perspective with regional data.” *Regional Studies*, vol. 56, 2022 — with M. Delgado, F. Geli and J. Pérez.
29. “Loan Types and the Bank Lending Channel.” *Journal of Monetary Economics*, vol. 126, 2022 — with V. Ivashina and L. Laeven.
30. “Firm-level heterogeneity in the impact of the COVID-19 pandemic.” *Applied Economics*, vol. 55, 2023 — with A. Fernández-Cerezo, B. González and M. Izquierdo.
31. “The spatial distribution of population in Spain: an anomaly in European perspective.” *Journal of Regional Science*, vol. 63, 2023 — with E. Gutiérrez, D. Oto-Peralías and R. Ramos.
32. “Schumpeter Meets Goldilocks: the Scarring Effects of Firm Destruction.” *SERIEs*, forthcoming — with B. González and I. Soler.
33. “Trade and Credit: Revisiting the Evidence.” *Review of International Economics*, forthcoming — with E. Gutiérrez.
34. “House Prices and Misallocation: The Impact of the Collateral Channel on Productivity.” *Economic Journal*, conditionally accepted — with S. Basco and D. López-Rodríguez.

Working Papers

1. “A production network model for the Spanish economy with an application to the impact of NGEU funds.” 2023 — with A. Fernández and J. Quintana. R&R
2. “Urban Accounting and Welfare in Spain: Are Madrid and Barcelona too Big?” 2022 — with D. Cuberes. R&R
3. “Production and Financial Networks in Interplay: Large Crisis Evidence from Supplier-Customer and Credit Registers.” 2020 — with K. Huremovic, G. Jiménez, J.L. Peydró and F. Vega-Redondo. R&R
4. “Government Procurement and Access to Credit: Firm Dynamics and Aggregate Implications.” 2022 — with J. di Giovanni, M. García-Santana, P. Jeenas and J. Pijoan-Mas.
5. “The propagation of Worldwide Sector-specific Shocks.” 2022 — with M. Izquierdo, E. Prades and J. Quintana.
6. “Propagation of Sector-specific Shocks within Spain and other Countries.” 2019 — with M. Izquierdo, E. Prades and J. Quintana.
7. “Bank Lending Standards over the Cycle: The Role of Firms’ Productivity and Credit Risk.” 2018 — with G. Jiménez and R. Vegas.
8. “The costs of trade protectionism: evidence from Spanish firms and non-tariff measures.” 2018 — with D. Kirpichev.
9. “High growth firms in employment and productivity: Dynamic interactions, and the role of financial constraints.” 2017 — with C. Guillamón and S. Puente.
10. “Does Slack Influence Public and Private Labor Market Interactions?” 2016 — with A. Lamo and J. Pérez.
11. “Signalling fiscal stress in the euro area - a country-specific early warning system.” 2014 — with P. Hernández de Cos, G. Koester and C. Nickel

Other Publications

1. “Austerity through public employment in bad times: exploiting the crowding-out and the competitiveness channels?” in European Commission Occasional Paper “Workshop on Government wage bill: determinants, interactions and effects.” 2014. — with A. Lamo and J. Pérez.
2. “Factores que mejoran el conocimiento financiero. El papel de la educación financiera escolar” in INEE (Ed.), PISA 2012: Competencia Financiera. Informe español. Volumen II: Análisis secundario, Cap. 5, pp. 115-136. 2014. — with A. Lacuesta and M. Martínez-Matute.
3. “The role of public wages in fiscal consolidation processes” in European Commission Occasional Paper “Workshop on Government wage bill: determinants, interactions and effects”. 2014. — with P. Hernández de Cos.
4. “Comportamiento cíclico de la I+D en las empresas españolas” in J. Fernández de Guevara and J. Fariñas (eds.), Modelo productivo y retos de la empresa española: productividad, competencia e innovación. Fundación BBVA. 2014. — with J. Montero and P. López-García.
5. “CompNet: una nueva base de datos microeconómicos para evaluar la competitividad europea.” Boletín Económico Banco de España. 2015. — with A. Lacuesta and J. Montero.
6. “El empleo y los salarios públicos durante la crisis: análisis desde una perspectiva internacional y regional.” Papeles de Economía Española, 147, FUNCAS. 2016. — with P. Hernández de Cos and J. Pérez.

7. "Potential growth of the Spanish economy." Occasional Paper 1603, Banco de España. 2016. — with P. Cuadrado.
8. "An exploration of real-time revisions of output gap estimates across European countries." Occasional Paper 1605, Banco de España. 2016. — with P. Hernández de Cos and A. Lacuesta.
9. "Umbrales en la relación entre inflación y actividad." Boletín Económico Banco de España. 2016. — with P. Cuadrado.
10. "Evaluating the Macro-Representativeness of a Firm-Level Database: An Application for the Spanish Economy." Occasional Paper 1802, Banco de España. 2018 — with M. Almunia and D. López-Rodríguez.
11. "The Microeconomic Origins of the Spanish Boom." Occasional Paper 1805, Banco de España. 2018.
12. "The evolution of Spanish total factor productivity since the global financial crisis." Occasional Paper 1808, Banco de España. 2018 — with Chenxu Fu.
13. "El ajuste por cuenta corriente de la economía española: ¿estructural o transitorio?" Papeles de Economía Española, 158, FUNCAS. 2018. — with E. Gutiérrez and F. Viani.
14. "El Proceso de Cambio Estructural de la economía española desde una Perspectiva Historica." Occasional Paper 1907, Banco de España. 2019 — with V. Gonzalez-Diez.
15. "A Sectoral Anatomy of the Spanish Productivity Puzzle." Occasional Paper 2022, Banco de España. 2020 — with P. Cuadrado and I. Solera.
16. "Containment measures, employment and the spread of COVID-19 in Spanish municipalities." Occasional Paper 2006, Banco de España. 2020 — with E. Gutiérrez.
17. "Tendencias recientes de la población en las áreas rurales y urbanas de España." Occasional Paper 2027, Banco de España. 2020 — with E. Gutiérrez and R. Ramos.
18. "Real-time analysis of the revisions to the structural position of public finances." Occasional Paper 2108, Banco de España. 2021 — with P. Burriel, V. Gonzalez-Diez and J. Martinez-Pages.
19. "A cost-of-living index for Spanish cities." Economic Bulletin, Banco de España. 2021. — with V. Forte-Campos and J. Quintana.
20. "Access to services in rural Spain." Occasional Paper 2122, Banco de España. 2021 — with M. Alloza, V. Gonzalez-Diez and P. Tello.
21. "Dinámicas de población durante el COVID-19." Occasional Paper 2122, Banco de España. 2022 — with E. Gutiérrez and R. Ramos.
22. "El crecimiento potencial de la economía española tras la pandemia." Occasional Paper 2208, Banco de España. 2022 — with P. Cuadrado, M. Izquierdo, J. Montero and J. Quintana.
23. "La accesibilidad presencial a los servicios bancarios en España: comparación internacional y entre servicios." Occasional Paper 2215, Banco de España. 2022 — with M. Alonso, E. Gutiérrez, D. Posada, P. Tello-Casas and C. Trucharte.
24. "Dinámicas de población en las áreas rurales y urbanas durante el COVID-19." ICE, Revista de Economía, 928. 2022 — with E. Gutiérrez and R. Ramos.
25. "El gasto público en España desde una perspectiva Europea." Occasional Paper 2217, Banco de España. 2022 — with M. Alloza, J. Brunet, V. Forte-Campos and J. Pérez.
26. "Un repaso de las diversas iniciativas desplegadas a nivel nacional e internacional para hacer frente a los riesgos de exclusión financiera." Occasional Paper 2305, Banco de España. 2023 — with M. Alonso, E. Gutiérrez, D. Posada and P. Tello-Casas.

Teaching Experience

- Sep. 2015 - Jun. 2020 Quantitative Methods, MBS, CEMFI, Madrid.
Jan. 2011 - Jun. 2011 Undergraduate Econometrics, UC3M, Madrid.
Jan. 2008 - Mar. 2009 Graduate Econometrics, CEMFI, Madrid. (TA Prof. Bonhomme)
Oct. 2007 - Dec. 2008 Graduate Statistics, CEMFI, Madrid. (TA Prof. Bonhomme)

Grants and Scholarships

- 2022 Prize for the best article published in SERIEs in the previous four years
2016 Shortlisted for the 2016 Vanguardia de la Ciencia Award.
2011 Invitee, 4th Lindau Meeting of Nobel Laureates in Economics, Germany.
2005 - 2010 CEMFI Scholarship.
2008 - 2010 Spanish Ministry of Transport, CEDEX Grant PT-2007-001-02IAPP.
2003 - 2004 Spanish Ministry of Education, Seneca Grant.
2000 - 2003 Spanish Ministry of Education, Full Scholarship.

Previous Experience

- Dec. 2018 - May. 2022 Division Head, Banco de España, Madrid.
Dec. 2016 - Dec. 2018 Unit Head, Banco de España, Madrid.
Sep. 2010 - Dec. 2016 Economist, Banco de España, Madrid.
Jan. 2011 - Jun. 2011 Adjunct Professor, Universidad Carlos III, Madrid.
Jul. 2007 - May. 2009 Consultant, The World Bank, Washington DC.
Jun. 2006 - Sep. 2006 Summer Intern, Solchaga Recio & Asociados, Madrid.
Jan. 2005 - Jul. 2005 Junior Auditor, BBVA, Madrid.
Sep. 2004 - Dec. 2004 Night Cleaner, ISS Facility Services, London.
Sep. 2003 - Jun. 2004 Research Assistant, University of Oviedo.
Sep. 2003 - Jun. 2004 Sales Representative, European Subscription Service, Oviedo.
Sep. 2002 - Jun. 2003 Research Assistant, University of Las Palmas.
Jul. 1999 - Sep. 2002 Warehouseman, Teka, Las Palmas.