Phone: +34 91 338 8587

mgonzalezperez@bde.es

web: BdE Research Staff

## Maria Teresa Gonzalez-Perez

Bank of Spain DG Operations, Markets and Payment Systems. Analysis and Market Intelligence Division. Calle Alcala 48

## **RESEARCH INTERESTS**

28014 Madrid, Spain

Macro-finance, volatility modelling, market risk, asset pricing, financial economics.

## **EDUCATION**

2007 Ph.D. in Economics, Universidad Complutense de Madrid, Spain.

2001 M.A. in Quantitative Economics, Universidad Complutense de Madrid, Spain

1998 B.A. in Economics (Quantitative Economics), Universidad Complutense de Madrid

## **EMPLOYMENT**

2019-	Senior Economist, Bank of Spain (Operations Department)
2016-2019	Tenured Associate Professor in Finance. CUNEF, Madrid, Spain
2011-2016	Assistant Professor. CUNEF, Madrid, Spain
2009-2011	Research Associate in the Finance Department, Northwestern University,
	Kellogg School of Management, IL, USA
2001-2009	Teaching Assistant/Trainee in Quantitative Economics, Universidad
	Complutense de Madrid, Spain.
1999-2003	Economic Analyst, ERISTE-ICAE Group, Madrid, Spain.

Lecturer. Universidad Carlos III de Madrid, Madrid, Spain.

## OTHER APPOINTMENTS

2022-

2023-2024	Research Affiliate. Kellogg School of Management, Northwestern University, IL,
	USA.
2009-2011	Visiting Scholar at the "Zell Center for Risk Research." Kellogg School of
	Management, Northwestern University, IL, USA.
Jan-Aug/2009	Post-doctoral Fellow at the Finance Department. Kellogg School of Management,
	Northwestern University, IL, USA.
Aug-Dec/2008	Visiting Post-doctoral Fellow at the Finance Department. Kellogg School of
	Management, Northwestern University, IL, USA.

## **ACADEMIC VISITOR**

2022	Kellogg School of Management, Northwestern University, IL, US (2 days).
2018	University of Vienna, Vienna, Austria (2 days).
2017	Kellogg School of Management, Northwestern University, IL, US (5 days).
2016	Kellogg School of Management, Northwestern University, IL, US (12 days).
2014	Kellogg School of Management, Northwestern University, IL, US (9 days).

2012 Kellogg School of Management, Northwestern University, IL, US (13 days).

2012 Institute for Statistics and Econometrics, Humboldt University, Berlin,

Germany (30 days).

#### REFEREE

Review of Finance, Operations Research, Journal of Financial Markets, Journal of Econometrics, Economic Modelling, Business Research Quarterly, Journal of Banking and Finance, MATCOM (Mathematics and Computers in Simulation), Empirical Economics, Finance Research Letters, Journal of Risk, Investigaciones Económicas (SERIEs), Cuadernos de Economía y Dirección de la Empresa (CEDE), International Journal of Theoretical and Applied Finance.

#### PUBLICATIONS IN ACADEMIC JOURNALS

- "Eurozone Prices: A Tale of Convergence and Divergence," with Alfredo Garcia-Hiernaux and David E. Guerrero. *Economic Modelling*, 2023, Vol 126, 106418. (Q1, IF 4.2)
- "An empirical assessment of proposed solutions for resolving scale problems in value relevance accounting research," with Juana Aledo, Juan M. García Lara, and Christos A Grambovas. *Accounting & Finance*, 2020, Vol 60 (4): 3905-3933. (Q3, IF 3.1)
- "Exploring Returns Dynamics via Corridor Implied Volatility," with Torben G. Andersen and Oleg Bondarenko. *Review of Financial Studies*, 2015, Vol 28(10): 2902-2945. (Q1, IF 5.6)
- "Model-free Volatility Indexes in the Financial Literature: A Review," *International Review of Economics and Finance*, 2015, Vol 40, 141–159. (Q1, IF 2023: 4.8)
- "Day of the Week Effect on VIX. A Parsimonious Representation," with David E. Guerrero. *The North American Journal of Economics and Finance*, 2013, Vol. 25, 243-260. (Q2, IF 3.8)
- "The Information Content in a Volatility Index for Spain," with Alfonso Novales. *Journal of the Spanish Economic Association (SERIEs)*, 2011, Vol. 2 (2), 185-216. (Q3, IF 1.7)
- "Are Volatility Indexes in International Stock Markets Forward Looking?" with Alfonso Novales. *RACSAM-Applied Mathematics Series*, 2009, Vol. 103 (2), pp. 339-352. (Q1 IF 1.8).

## **WORKING PAPERS**

- "How to measure infation volatility. A note," with Alfredo Garcia-Hiernaux and David E. Guerrero (2023). Banco de España Working paper # 2314. An updated version of this article is distributed at SSRN under a new title "Inflation volatility and the directional volatility ratio."
- "The impact of Sovereign Debt Purchase programms. A case study: the Spanish-to-Portuguese bond yield spread" with Fernando Cerezo, Pablo Giron and Roberto Pascual. (2024). Banco de España Working paper # 2422.
- "The short-term and long-term relationship between EURUSD expected and realized volatility," (2023). Working paper.
- "<u>VIX maturity interpolation</u>," with Torben G Andersen and Oleg Bondarenko (2024). Working Paper.
- "Lessons from estimating the average option-implied volatility term-structure for the Spanish banking sector," Maria T Gonzalez-Perez (2022). Bank of Spain Working Paper # 2128.
- "<u>Is It Expected Volatility or Expected Precision?</u>," with David E. Guerrero (2022). SSRN Working paper.
- "Measuring the Spillovers of Uncertainty Shocks," (2020). SSRN Working paper.

- "A Corridor FIX for High-Frequency VIX: Developing Coherent Implied Volatility Measures," (2019) working paper with Torben G. Andersen and Oleg Bondarenko.
- "Extrinsic information asymmetries, accounting quality, and investment efficiency," (2018) Permanent working paper with Juana Aledo and Juan M. García Lara.

## PUBLICATIONS RESULTING FROM WORKING GROUPS PARTICIPATION.

- "<u>How Do Central Banks Identify Risks?</u>" A Survey of Indicators (October 1, 2021). Banco de Espana Occasional Paper No. 2125.
- "<u>US dollar funding: an international perspective</u>" (June 18, 2020) Member of the Working Group chaired by Sally Davies (Board of Governors of the Federal Reserve System) and Christopher Kent (Reserve Bank of Australia). Committee on the Global Financial System (CGFS) papers.

#### OTHER PUBLICATIONS

- "How to estimate inflation volatility. A Note." (2023) SUERF Policy Brief, No. 645.
- "Lessons from estimating the average option-implied volatility term-structure for the Spanish banking sector" (2022) SUERF Policy Brief, No 282.
- "Factores de microestructura del mercado en la determinación del precio del petróleo"
   (Market microstructure factors affecting the oil price," (2020) with Carlos Gonzalez-Pedraz). Bank of Spain Economic Newsletter #3.

#### **HONORS AND AWARDS**

2017 XXV Finance Fo

XXV Finance Forum best conference paper in derivatives for "A Corridor FIX for High-Frequency VIX: Developing Coherent Implied Volatility Measures" (with Torben G Andersen and Oleg Bondarenko). Universitat Pompeu Fabra (UPF), Barcelona, Spain.

# INVITED PRESENTATIONS

(recent, P: presenter, D: discussant, SC: session chair, Pn: panelist)

2024

• ESADE, Barcelona, Spain (P), • XXXI Finance Forum, La Laguna, Tenerife, Spain (P), • III Banco de España Workshop on Financial Markets, Valencia, Spain (P,D), • 16th Annual Meeting of the Society for Financial Econometrics, (SoFiE) Rio de Janeiro, Brasil (P), • 2024 Cboe RMC Conference, Utah, USA (Pn,SC), •8<sup>th</sup> Annual Workshop of the ESCB Research Cluster 3 on Financial Stability, Macroprudential Regulation and Mocropridencial Supervision, Rome, Italy (D).

2023

• CEMFI, Madrid, Spain (P). • Advances in Financial Econometrics, Copenhagen, Denmark (P), • UCM, Madrid, Spain (P), • XXX Finance Forum, Malaga, Spain (P), • Cboe RMC 2023 (Pn), TX, USA • II Banco de España Workshop on Financial Markets, Palma de Mallorca, Spain (D), • 7th Annual Workshop of ESCB Research Cluster 3 on Financial Stability, Macroprudential Regulation and Microprudential Supervision, Finland (SC).

2022

• Banco de España, Madrid, Spain (P) • 2022 Midwest Econometrics Group, East Lansing, MI, USA (P).

- Banco de España, Madrid, Spain (P: online) Vienna Workshop on Econometrics of Options Markets, Vienna, Austria (P: online). European Financial Association 48th Annual Meeting, Milan, Italy (D: online). Midwest Financial Association 70th Annual Meeting, Chicago, USA (D: online).
- Universidad Carlos III, Madrid, Spain. (P) XXV Meeting f the Central Bank Researchers Network CEMLA (P: online).
- University of Vienna. Finance Department Seminars, Austria. (P) First International Workshop on New Frontiers in Financial Markets, CUNEF, Madrid, Spain (P) CEMFI, Madrid, Spain (P).
- XXV AEFIN Finance Forum, UPF, Barcelona, Spain (P). First Prize to the Best Paper in Derivatives (BME) IE (Instituto de Empresa), Madrid, Spain (P) Lisbon Finance Seminars (P). CATOLICA-LISBON, NOVA SBE, ISCTE-IUL and ISEG (Lisbon, Portugal).
- 3rd Empirical Finance Workshop (P). ESSEC Business School, Paris, France (P) XXIV AEFIN Finance Forum (P), CUNEF, Madrid, Spain.

#### MEMBER OF WORKING GROUPS

- 2019-2020 Committee on the Global Financial System (CGFS) Working Group on US Dollar Funding. Chaired by Sally Davies (Board of Governors of the Federal Reserve System) and Christopher Kent (Reserve Bank of Australia).
- Working Group for the Banco de España strategic plan to develop "Framework for identifying risks to financial and economic stability." Chair: Carmen Broto (Banco de España)

## EXPERIENCE ORGANIZING SEMINARS AND WORKSHOPS

- 2024- Bank of Spain external research seminars. Madrid. Spain.
- Bank of Spain internal research seminars (on charge of papers presented by researchers in the DG Operations, Markets and Payment Systems). Madrid. Spain.
- May-2024 III Jornada Mercados Financieros (III Financial Markets Conference). Valencia, Spain.
- Oct-2023 II Jornada Mercados Financieros (II Financial Markets Conference). Palma de Mallorca, Spain.
- Mar-2023 I Jornada Mercados Financieros (I Financial Markets Conference). Alicante, Spain.
- Mar-2018 First International Workshop on New Frontiers in Financial Markets, CUNEF, Madrid, Spain.
- **2017-2018** CUNEF Research Seminars (organizor), Madrid, Spain.

## **GRANTS**

VIX Maturity Interpolation. The Options Institute Research Grant Program, Cboe, Chicago, IL, USA. Joint project with Torben G. Andersen (Northwestern University) and Oleg Bondarenko (University of Illinois Chicago).

2016-2019	Financial Crisis effects on the SMEs capital structure and on the flow of volatility
	of the capital markets [Efectos de la crisis Financiera sobre la estructura de capital
	de las SMES y sobre los Flujos de Volatilidad en los Mercados de Capitales].
	Funded by "Ministerio de Economía, Industria y Competitividad" (Ministry of
	Economy, Industry and Competition, Spain). Ref.: ECO2016-79693-P. (project
	<u>director</u> ).

2013-2016 Corporate Governance, Capital Markets, and Financial Crises. Funded by Ministerio de Economía y Competitividad (Ministry of Economy and Competition, Spain). Ref.: ECO2012-32554.

**2006-2009** Optimal Fiscal and Monetary Policies: 1) theoretical analysis, 2) impact on financial markets. Funded by Ministerio de Ciencia e Innovación (Ministry of Science and Innovation, Spain). Ref.: SEJ2006-14354.

**2005-2009** Quantitative Analysis of Economic Policy and Financial Markets. Funded by: Universidad Complutense de Madrid, Spain.

2000-2001 Simplifying VMA and VARMA Models: Linear Estimation and Automatic Specification Methods of Space State Models. Funded by: Ministerio de Educación (Ministry of Education, Spain) Principal Ref.: DGICYT PB98-0789

**2000-2001** Econometric Modeling with Application to Financial Markets, Corporate Investment, and Infrastructures. Funded by: Ministerio de Educación (Ministry of Education, Spain). Ref.: DGICYT PB95-0912.

## EXTERNAL Ph.D./MASTER COMMITTEE MEMBER

2024	Master thesis discussant. • Euken Maiz, "Short-Term Variance Risk Premium
	Term Structure: Analysis and Sources" (Master thesis director: Juan M. Londono)
	Master on Banking and Quantitative Finance, Universidad Complutense de
	Madrid, Madrid, Spain, October 2, 2024.

**Ph.D. Committee member •** Maria Andreea Vaduva, "Three Essays on Finance" (Ph.D. Advisor: José Sebastian Penalva Zuasti), Universidad Carlos III, Madrid, Spain, July 17, 2023.

**Proposal Defense DBA** • Ivan Montoya, "A comprehensive analysis of Investment Funds in Colombia: An Empirical Investigation" (Master Thesis Advisor: Juan-Pedro Gomez), IE, Madrid, Spain, March 22, 2018.

**Ph.D. Committee member •** Julio A. Crego, "Essays on Political Economy and Migration" (Ph.D. Advisor: Dante Amengual), CEMFI, Madrid, Spain, June 1, 2017.

## **TEACHING**

## Universidad Carlos III de Madrid, Madrid, Spain

Lecturer

Advanced Financial Statistics (M.Sc. in Finance, 21 hours) 2022-2025

## Colegio Universitario de Estudios Financieros (CUNEF), Madrid, Spain

	- I · ·
Assistant Professor / Tenured Associate Professor	
Business Statistics I (Undergraduate)	2011-2012
Business Statistics II (Undergraduate)	2011-2018
Banking and Stock Market Operations (Undergrduate)	2013-2019
Technical Analysis (M.Sc. in International Markets and Institutions)	2015-2016
Technical Analysis (Summer Course)	2015-2017

# Kellogg School of Management, Northwestern University, Finance Department, IL, USA

Invited Professor

Lecture: Construction and applications of volatility indexes (1<sup>st</sup> year Ph.D. course) 2011

# Universidad Complutense de Madrid, Madrid, Spain

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Leaching	Assistant /	Trainee
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Introduction to Econometrics (Undergraduate)	2005-2007
Econometrics I (Undergraduate)	2004-2006
Econometrics II (Undergraduate)	2004-2007
Financial Economics (Undergraduate)	2002-2003
Introduction to Macroeconomics (Undergraduate)	2001-2004
Advanced Macroeconomics (Undergraduate)	2001-2002
Economic Analysis (M.Sc. in Economics)	2001-2005

# Fundación de Estudios Financieros (Financial Studies Foundation), Madrid, Spain

Professor

Statistical Methods (M.Sc. in International Finance, 16 hours) 2005-2006

## ACADEMIC SERVICE (more recent)

2024	• Scientific Committee Member for: (a) Midwest Finance Association, Chicago, IL, USA, and (b) 8th Annual Worshop of the ESCB Research Cluster 3 on Financial Stability, Macroprudential Regulation and Microprudencial
	Supervision, Rome, Italy.
2023-	<ul> <li>Bank of Spain working paper series Editor.</li> </ul>
2021-	• Member of the Society for Financial Econometrics (SoFiE), European
	Economic Association (EEA).
2017-	• Member of the Spanish Ministry of Economy, Industry and Competitiveness
	Research Agency (Evaluator), Madrid, Spain.
2017- 2019	• Member of the academic job promotion committee at CUNEF, Madrid, Spain.

• Scientific Committee Member for: XXIV AEFIN Finance Forum at CUNEF,

## **LANGUAGES**

2016

Spanish (native), English (fluent).

## **COMPUTATION SKILLS**

Matlab, SAS, SPSS, Stata, Eviews, Office, Bloomberg.

Madrid, Spain.