



Manu Vega Gordillo

Curriculum Vitae

"Play Hard, Play Smart, Play Together"

Experience

- 2005–Present **Analytics Group Vice-President**, SANTANDER BANK, Madrid, Spain.
- I have very much learnt and enjoyed working with astonishing and smart teams of analytics at the Santander Bank: From statistical models to measure credit rating for different segments such as Countries, Corporations and SMEs to innovative projects to measure reputation and market sentiment, recommender systems for HH.RR. management, searching for the best technological environment for advanced analytics and attract STEM profiles through economic capital models for credit, market and operational risk.
- Detailed achievements:
- 2018–Present. Head of the Research and Non-Financial Risks department managing different innovative projects:
 - Reputational Risk Tool: a tool for measuring and monitoring reputation issues.
 - JobAffinity: a hiring recommender system.
 - SmartMarket: NLP applied to prediction of financial market time series.
 - The Karamba Project: Searching for the best computational approach and environment for building advanced models.
 - 2018–2020. Champion at the I and II Digital Training Camp for STEM Talent Attraction.
 - 2014–2018. Head of operational risk quantitative model development:
 - Design and development of the quantitative model to measure economic capital for operational risk.
 - 2009–2014. Manager economic capital quantitative model development:
 - Development of the capital calculation methods: Monte Carlo and Saddlepoint methods.
 - Design and development of the economic capital correlation model.
 - 2005–2008. Development of quantitative rating models for Corporates, Countries and SMEs (IRB models).
- 2020–Present **Associate Professor**, DATA SCIENCE AND ARTIFICIAL INTELLIGENCE INSTITUTE, UNIVERSITY OF NAVARRA, Pamplona, Spain.
- Advanced Analytics.

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GitHub work is in progress.

- 2018–Present **Lecturer Master in Big Data Science**, CULTURE AND SOCIETY INSTITUTE, UNIVERSITY OF NAVARRA, Pamplona, Spain.
Statistical and Machine Learning concepts: Decision Trees, Naïve Bayes, kNN, GBM, Random Forests and Bayesian Statistics.
- 2000–2005 **Associate Professor Algebra and Calculus**, SCHOOL OF ECONOMICS, UNIVERSITY OF NAVARRA, Pamplona, Spain.
Algebra and Calculus.
- 2001–2004 **Head of Quantitative Economic Department**, CÍRCULO DE EMPRESARIOS, Madrid, Spain.
Supervision and development of quantitative methods supporting published reports.
- 1999–2001 **Academic Secretary of the Quantitative Methods Department**, SCHOOL OF ECONOMICS, UNIVERSITY OF NAVARRA, Pamplona, Spain.
- 1994–2000 **Teaching Assistant**, SCHOOL OF ECONOMICS, UNIVERSITY OF NAVARRA, Pamplona, Spain.
Algebra, Calculus, Econometrics and Statistics.



Education

- 2017 **Executive Operational Risk Program**, *Santander Corporate Risk School*, Santander Bank, Madrid, Spain.
- 2016 **Management Development Program**, *FT|IE Corporate Learning Alliance*, Santander Bank, Madrid, Spain.
- 2008–2009 **Postgraduate Certificate in Education**, *Learning Sciencies Institute*, Complutense University, Madrid, Spain.
Specialized in Mathematics.
- 2003–2004 **Postdoctoral Position**, *The Wharton School*, University of Pennsylvania, Philadelphia, PA.
Specialized in Statistics and Marketing.
- 1996–2000 **Ph.D. Economics**, *School of Economics*, University of Navarra, Pamplona, Spain.
Thesis Title: Three Essays on Volatility and New Information in Foreign Exchange Markets.
- 1989–1994 **B.A Economics**, *School of Economics*, University of Navarra, Pamplona, Spain.
Specialized in Applied Economics.

Ph.D. Thesis

- Title *Three Essays on Volatility and New Information in Foreign Exchange Markets*
- Supervisors Professor Luis Ravina-Bohorquez
- Description The flexible exchange rates determination is one of the greatest enigmas in Economics. In this thesis, we search for the main drivers through the analysis of the impact of volatility and new information on foreign exchange markets. The main conclusion is that volatility and new information are key factors in explaining the short term evolution of flexible exchange rates.

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Skills Overview*

Communication Skills

LaTeX

Python

R

Big Data Tools

Statistical Learning

Bayesian Statistics

Team Player*6 Watchmen Fan*6 Dostoevski Fan*6

(*)[The skill scale is from 0 (Fundamental Awareness) to 6 (Expert).]

Languages

Spanish **Mothertongue**

English **Advanced**

Conversationally fluent

Computer skills

Basic LINUX

Intermediate PYTHON, GIT, CONFLUENCE

Advanced R, LaTeX, Rmarkdown, Microsoft Windows

Last Refereed Publications

2003 **Economic Growth and Freedom: A Causality Study**, *Cato Journal*, issue 2, 199-215, (with José L. Álvarez Arce).

2008 **PD/LGD Liasons**, *Risk*, January, 110-114, (With Francisco Sánchez, Roland Ordovás and Elena Martínez)..

Last Informative Publications

2015 **Operational Risk Quantification: Is That Possible?**, *Everis*.

Last Conference

2019 **Back To The Future**, *Riscos 4.0, Riscos Talks*, Santander Portugal, Lisboa.

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Master's thesis Supervision

- 2019 **Cointegrated Pairs Trading Based On Kalman Filter**, *Diego Suárez Villena*, Master in Big Data and Data Analysis Techniques, Carlos III University, Madrid Spain.
- 2019 **Topic Modelling: LDA, BoW and Deep Learning**, *María Álvarez Villanueva*, Master in Mathematical Engineering, Carlos III University, Madrid, Spain.

Research Interests

Bayesian and frequentist variables selection. Probabilistic models in Marketing. Quantitative Risk Management, State-Space Models. Operational Risk Models. Discrete Choice Modelling. Time Series Econometrics. R programming.



Interests

- | | |
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| - Piano | - Comics |
| - Cinema | - Teaching |
| - Tattoo | - Literature |
| - Agile | - Trekking |

CV Templates References

This CV has been build upon the ModernCV \LaTeX template by Xavier Danaux available at [GitHub](#) and the Twenty Seconds Resume CV \LaTeX template by Carmine Spagnuolo available at [TwentySeconds](#).

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