

Mario Hernandez Tinoco, PhD

Professor – Speciality: Corporate Finance

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EDUCATION

- 09-2013 **Leeds University Business School, United Kingdom**
PhD, in Finance
Thesis Title: Financial Distress and Bankruptcy Prediction using Accounting, Market and Macroeconomic Variables.
Advisor: Prof. Nicholas Wilson.
Co-Advisor: Prof. Phil Holmes.
- 07-2007 **Institut d'Etudes Politiques de Paris (Sciences Po Paris), France**
Observatoire Français des Conjonctures Economiques (OFCE), Paris, France
M. Res. (with Mention), 2-Year Programme, Gouvernance Economique and Diplôme de L'Institut d'Etudes Politiques de Paris
Thesis Title: Communication des Banques Centrales et Structure par Terme des Taux d'Intérêt.
Advisor: Prof. Henri Sterdyniak.
- 09-2004 **Universidad Nacional Autónoma de México, Mexico**
- 2001 **Université de Montréal, Exchange Program, Canada**
B. A., International Relations and Business (with Mention).
(English, French, Spanish).

TEACHING EXPERIENCE

- 2017- **EDHEC Business School, Lille, France**
Professor of Corporate Finance
- 2014-2017 **University of Groningen, The Netherlands.**
Assistant Professor at the Faculty of Economics, Econometrics & Finance.
1. Banking, Insurance & Risk Management (Postgraduate Level). Lecturer & Instructor. 2014 to date. Lectures on Risk: Market, Credit, Liquidity, Model and Operational. Development of practical exercises on the type of risks

dealing with the estimation and analysis of the above types of risk. Tutor for final teams' practical assignment on market risk estimation (VaR, ES, Back testing, Regulatory perspective and analysis). Participation in the visit of students to the Dutch Central Bank. Participation in the development and grading of final and resit exams.

2. **Corporate Financial Restructuring (Undergraduate Level) *Instructor*. 2014 to date.**

Tutorials on Mergers and Acquisitions (theoretical explanations of M&A trends, value creation, industrial/geographical diversification, corporate governance and M&As, and other Corporate Financial Restructuring activities). Discussion of case studies. Tutor for final teams' research paper on the analysis of a real case merger and/or acquisition deal). Participation in the development and grading of final and resit exams.

3. **Economics of Banking (Undergraduate Level). *Instructor*. 2014 to date.**

Tutorials on economic modeling applied to banking: Formal derivation of the Fisher Model and bank balance sheets, Theory of the banking firm (Competition, Monti-Klein, Cournot model), Market Concentration, Asymmetric Information, Risk Management (Models and securitization), Macroeconomics of Banking (Banks and Aggregate demand). Grading of final and resit exams.

4. **Empirical Research Paper for Business Economics. (Undergraduate Level).**

***Instructor*. 2014 to date.** Tutorials on Instrumental Variables and Probability models (Linear, Logit, Probit). Introduction of students to EViews for econometrics. Tutor for the writing of teams' research paper on an application of the logit and probit model to a dataset provided.

5. **Finance & Risk Management for International Business. (Undergraduate Level).**

***Lecturer & Instructor*. 2014 to date.** Lectures on corporate finance topics (Financial Analysis, Time Value of Money, Valuation of Securities, Risk and Return, Capital Budgeting, Cash Flows, Cost of Capital, Financial Structure, Dividend Policy, Working Capital Management, Financial Planning, Risk Management). Development and delivery of weekly tutorials. Participation in the development of 3 quizzes and development of final and resit Exams.

6. **Research Paper for Pre-MSc Finance. *Instructor & Supervisor*. 2014 to date.**

Tutorials on the writing of a research paper focused on the application of the eventstudy methodology (the event study, available types of models such as mean, market, 3-factor, etc., methodological issues, practical applications, detailed discussion of parametric and non-parametric significance tests), as preparation for the MSc in Finance. Preparation of material and presentation of the implementation in practice of non-parametric tests.

7. **Principal Supervisor of Master's thesis for the programs: Master of Science in Finance and International Financial Management. 2014 to date.** +/- 10 students per year (+/-5 MSc Finance students and +/-5 IFM students). Main areas and methodologies of supervision: Areas: Banking, Risk Modeling, Corporate Ownership, M&As. Econometric

techniques/methodologies: Count Data, Event Studies, Generalized Method of Moments, Multinomial Logit, Panel Data (Random/Fixed Effects).

8. **Main Examiner of Master's thesis for the programs: Master of Science in Finance and International Financial Management. 2014 to date.** +/- 10 students per year (+/-5 MSc Finance students and +/-5 IFM students). Main areas and methodologies for examination: same as above.

**2013-2014 Leeds University Business School, United Kingdom.
Teaching Fellow in Accounting and Finance.**

1. **Commercial Banking (Postgraduate Level). 2013-14. Module Leader, Lecturer & Instructor.** Lectures and seminars on: The Financial system and financial intermediation, Measure and management of bank risks, Loan risk assessment, Securitization, Relationship banking, the Role of bank capital, Managing and pricing bank liabilities, Evaluation of bank performance. Development and grading of exams.
2. **Capital Markets Theory (Undergraduate Level). 2013-14. Instructor.** Seminars on: Stock exchanges, Types of shares, Risk and Return, Introduction to Portfolio Theory, CAPM, Efficient Markets Hypothesis, Fundamental and Technical analysis of Shares, Bond valuation and the Term structure of interest rates, Binomial option pricing model and Black-Scholes model.
3. **International Banking & Finance (Undergraduate Level). 2013-14. Instructor.** Seminars on: The Theories of financial intermediation and information asymmetry, the Development and nature of international banking, Central banking, Banking regulation, Nature and management of risk in banking, Causes and consequences of failure amongst banking and other financial organizations.

**2009-2013 Leeds University Business School, United Kingdom.
Teaching Assistant in Accounting and Finance.**

1. **Commercial Banking (Postgraduate Level). 2012-13. Lecturer & Instructor.** Lectures and seminars on: same as above.
2. **International Banking & Finance (Postgraduate Level). 2012-13. Instructor.** Seminars dealing with Case studies: Financial Crises 1997 and 2007-08, The Eurozone debt crisis, International Financial Centers, Bank of Credit and Commerce International, Bank failures: Lehman Brothers and Northern Rock, Financial Systems in India and China.
3. **International Banking & Finance (Undergraduate Level). 2011-12. Instructor.** In charge of seminars on: same as above
4. **Consumer and Corporate Credit (Postgraduate Level). 2009-10 and 2010-11. Instructor.** Seminars and Module Tutor on: Consumer Credit (consumer finance, risk and credit management, collection and recovery strategies). Commercial Credit (business to business (trade) credit, demand and supply of trade credit, credit decisions, risk and receivables management in domestic and export markets). Credit Scoring, Customer Behavior Modelling and Risk Management (design, building, use and monitoring of risk and behavioral scoring systems).

RESEARCH EXPERIENCE & REFEREED PUBLICATIONS

- *Ad Hoc Referee for Peer-Reviewed Journals in Finance (Areas: Risk Modelling and Management, Financial Distress, Computational Finance).*

- Research Internships & Memberships

Observatoire Français des Conjonctures Economiques (OFCE), Paris, France. *Research Intern* (2007). Master's thesis "Central Bank Communication and the Term Structure of Interest Rates," with Bruno Ducoudré, under the supervision of Prof. Henri Sterdyniak, Director of the Department of Economics of Globalization at the OFCE.

Credit Management Research Centre (CMRC), University of Leeds. As Ph. D. candidate.

Centre for Advanced Studies in Finance (CASIF), University of Leeds. As Ph. D. candidate.

- Refereed Publications

Hernandez Tinoco, M. and Wilson, N., (2013) Financial Distress and Bankruptcy Prediction Amongst Listed Companies Using Accounting, Market and Macroeconomic Variables, *International Review of Financial Analysis*, 30: 394-419.

- Working papers

Hernandez Tinoco, M., Wilson, N., & Holmes P., (2016) Polytomous Response Financial Distress Models for Listed Companies using Accounting, Market, and Macroeconomic Variables.

Hernandez Tinoco, M. and Wilson, N., (2013) A Historical Study on the Evolution of Risk Assessment and Credit Information Sharing in the US and the UK in the Nineteenth Century.

- Works in Progress

Enforcement and Political Connectedness in the Banking Industry. Objective: Explore the effect of political connectedness on the probability of a bank to be subject to enforcement as well as its probability to be bailed out. We expect to show that enforcement action is in principle a strong discipline device but its disciplining role is reduced in the case of banks which are well politically connected. Methodology: derive the expected probability to different types of enforcement action as a function of a bank's observable distress conditions and a bank's political connectedness, and then, regress the measures of bank behavior (related to measuring risk discipline) on the estimated expected probability of a bank to be subject to enforcement actions rather on the de facto received actions.

Machine Learning and Early Warning Systems of Financial Distress and Risk in the Banking industry. Objective: generate early warning models with enhanced performance for the prediction of bank vulnerabilities leading to financial distress. We expect to show that the application of state-of-the-art machine learning techniques combined with the individual characteristics and systemic relevance of banks, indicators of macro-shocks and banking sector vulnerabilities can lead to better performing and more useful models for financial practitioners and regulators. Methodology: apply machine learning techniques such as artificial neural networks and compare their performance relative to parametric statistical

methodologies to produce more timely and better performing models for the banking sector than the existing ones.

Determinants of cross-border in and out acquisitions in the financial sector: A crosscountry analysis. Objective: Study the determinants, after the financial crisis, of one type of one type of cross-country foreign direct investment: acquisitions in the financial sector, to assess, 1) whether the factors affecting the financial firms' decisions to invest in other countries through the acquisition of assets can be generalized in several countries, and 2) distinguish between the determinants of in- and out- acquisitions and, 3) assess whether these determinants are non-stationary, especially after the financial crisis. Methodology: apply logit, probit and panel data count regressions to assess the determinants of the number of acquisitions for in- and out- acquisitions.

Funding Liquidity and Market Liquidity: An Empirical Analysis. Objective: Investigate whether the relationship between funding and market liquidity holds empirically, using the theoretical feedback loop of Brunnermeier and Pedersen (2009) as a starting point: High funding liquidity leads to an increase in trading, which results in higher market liquidity and a lower volatility. Then, lower volatility should lead to a decrease in margin requirements implemented to the collateral in repo transactions, resulting in another improvement in funding liquidity. Methodology: The study intends to test other potentially useful liquidity measures such as negative interest rate swap spreads (the difference between swap rates and Treasury yields, which are normally positive), and CDS bond basis (the difference between the CDS implied yield and the yield of the underlying bond) as additional proxies for funding liquidity dislocations in financial markets.

- Conferences and Seminar Presentations.

Leeds University Business School Staff Seminar Series (2013-14). Polytomous Response Financial Distress Models for Listed Companies using Accounting, Market and Macroeconomic Variables. With Nick Wilson and Phil Holmes.

7th International Accounting and Finance Doctoral Symposium, Bologna, Italy (2013). A Historical Study on the Evolution of Risk Assessment and Credit Information in the United States and the United Kingdom in the Nineteenth Century. With Nick Wilson.

HONORS & AWARDS

Top 5 Most Downloaded International Review of Financial Analysis Articles (from December 2013 to Present). Paper: Financial Distress and Bankruptcy Prediction among Listed Companies using Accounting, Market and Macroeconomic Variables (2013), with Nick Wilson.

Top 5 Most Valued Courses (2015) The brand-new course, to which I contributed in the design and preparation of content, material and exams, 'Corporate Financial Restructuring' was formally included among the "Top 5 Most Valued Courses of the Faculty of Economics and Business at the University of Groningen" based on students' evaluations.

'Funding for PhD studies.' (2009-2012). Mexican Government. Full funding for 3-year PhD program in Finance at Leeds University Business School. Highly competitive scholarship based on academic excellence for students in foreign academic institutions.

‘Bourse d’Excellence Eiffel’ (2005-07). French Government. Full funding for 2-year Master of Research program in Economics at the Institut d’Etudes Politiques de Paris (Sciences Po Paris). Highly competitive scholarship based on continuous academic excellence addressed to foreign students in French academic institutions.

Valedictorian Student of the generation of the National Autonomous University of Mexico for highest overall academic performance.

Exchange program scholarship (2002). Full funding, based on academic performance, to study at the University of Montréal, Canada.

WORK EXPERIENCE

Student Sub-warden, University of Leeds, United Kingdom (2010-2012).

Assistance to students, development of a student community, organization of social and cultural activities, assistance in the maintenance of university residence rules and discipline.

Analyst of Commercial Alliances and Special Prorate Agreements (SPAs), AeroMexico – Sky Team, Mexico (2008-2009).

Leader of inter-airline negotiations and estimation of revenues from shared flights with members and non-members of the Sky Team airline alliance. Management of databases and statistics as well as quantitative analysis for the International Sales Department.

COMPUTER SKILLS

R & Python for computational finance, applied finance, and statistical analysis, as well as programming and data manipulation.

EViews, SAS, SPSS and Stata, for statistical analysis.

COURSES

International Air Transport Association (IATA), Geneva, Switzerland, (2008) “Passenger Proration with Fundamentals of Tariff Construction.” Quantitative course for senior executives in the airline industry.

LANGUAGES

English: Fluent.

French: Fluent.

Spanish: Mother tongue.

OTHER INTERESTS & ACTIVITIES

Modelling market risk of banks and credit risk of corporations, back-testing trading strategies in equities, derivatives and foreign currencies, and analyzing M&As strategies in the banking sector.