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OVERVIEW

Dr. Rosa M. Abrantes-Metz is a principal in the antitrust, securities and financial regulation practices of Global Economics Group based in New York. Her experience includes work in consulting and banking, as well as in government. Her main areas of specialization are econometrics, monetary and financial economics, and applied industrial organization. Dr. Abrantes-Metz is an adjunct associate professor at Leonard N. Stern School of Business, New York University, where she teaches money and banking, financial institutions, and industrial economics. She has taught econometrics at the department of economics at the University of Chicago, and various other fields of economics at Universidade Católica Portuguesa, in Lisbon, Portugal.

After working as a staff economist at the Federal Trade Commission, Dr. Abrantes-Metz continued to serve as a consultant for special projects with the Commission's Bureau of Economics. She is currently a consultant for the World Bank. Dr. Abrantes-Metz is the author of several articles on econometric methods and screens, conspiracies and manipulations, gasoline, pharmaceuticals and health care, telecommunications, monetary policy, event studies, valuation, structured finance, credit default swaps, credit ratings and new statistical tests, representing some of the areas in which she has also worked as an economic consultant. Dr. Abrantes-Metz has published in peer-reviewed journals such as the International Journal of Industrial Organization, the Journal of Pharmaceutical Finance, Economics and Policy, Applied Economics Letters, the Journal of International Arbitration, and the Journal of Banking and Finance, with forthcoming publications in the Journal of Futures Markets and the Journal of International Money and Finance. Her work has also appeared in trade publications including the ABA Economics Committee Newsletter, The Antitrust Source, The Antitrust Magazine, The Antitrust Counselor, The Competition Policy International Journal and Antitrust Chronicle, Derivatives Litigation Reporter, and Securities Litigation Report. Dr. Abrantes-Metz is a co-drafter of the chapter on the role of the economic expert in proving conspiracy cases under federal antitrust laws in a recent volume published by the American Bar Association. In addition she has contributed to other books on international arbitration with a focus on event studies, and is a co-author of the chapter on corporate governance and compliance forthcoming in the next Handbook on Antitrust Economics.

Dr. Abrantes-Metz has developed numerous empirical screens for conspiracies and manipulations, and is a pioneer in the field, contributing to the further development and increased adoption of these methods. She has flagged potential anticompetitive behavior leading to large scale investigations, and has also used these methods to defend against allegations of such behavior. Her screens are used by competition authorities, defendants and plaintiffs worldwide. In pharmaceuticals, she has co-developed a model to estimate the likelihood of drugs failing and succeeding each of the clinical stages of the Food and Drug Administration, and their expected durations in each of these phases. This model has become one of the two most used by industry analysts to assist in valuing pharmaceutical and biotechnology pipelines. Her research on pharmaceuticals and on conspiracies and manipulations has been discussed in books on how to value pharmaceutical and biotechnology companies, and on publications pertaining to health care, intellectual property and cartels. She has presented her work all over the world. Dr. Abrantes-Metz's work has been featured in the press such as the *Wall Street Journal*, *Financial Times*, *The Economist*, *CNNmoney* and *Investor's Business Daily*. Dr. Abrantes-Metz has provided testimony related to alleged bid-rigging, price-fixing and market allocation, on the valuation of an energy services provider company, and on the valuation of expropriated oil services assets.

Dr. Abrantes-Metz holds a Ph.D. and a Masters in Economics from the University of Chicago. She also holds a Masters in Economics from the Universitat Pompeu Fabra in Barcelona, Spain, and a Licenciatura in Economics from Universidade Católica Portuguesa. She is a member of the *Who's Who* of Competition Lawyers & Economists.

PROFESSIONAL EXPERIENCE

- 2011 – present** **Global Economics Group**
Principal
- 2007 – 2011** **LECG & AFE Consulting**
Principal
- 2004 – 2007** **NERA Economic Consulting**
Senior Consultant, Consultant
- 2002 – 2004** **Federal Trade Commission, Bureau of Economics**
Economist
- 2001** **RCF Economic and Financial Consulting, Inc.**
Part-time Consultant (June – October)
- 2001** **Board of Governors of the Federal Reserve System**
Spring Associate (February – June)
- 1998** **Banco Bozano Simonsen - Rio de Janeiro, Brazil**
Summer Associate (June – October)

Teaching & Research Positions

2009 - present **New York University, Leonard N. Stern School of Business**
Adjunct Associate Professor – Department of Economics

1998 – 2001 **University of Chicago, Department of Economics**
Lecturer for Econometrics Honors
Teaching Assistant for Graduate Econometrics and Macroeconomics

1992 – 1995 **Universidade Católica Portuguesa, Lisbon, Portugal**
Research Assistant
Teaching Assistant

OTHER ACADEMIC AND AGENCY AFFILIATIONS

2009 – 2011 **New York University, Leonard N. Stern School of Business**
Visiting Scholar – Department of Economics

2011 – present **World Bank**
Consultant for Special Projects

2004 – 2008 **Federal Trade Commission, Bureau of Economics**
Consultant for Special Projects

2007 – 2009 **Suffolk University, Sawyer Business School**
Board of Advisors – Department of Accounting

EDUCATION

University of Chicago

PhD in Economics

MA in Economics

Universitat Pompeu Fabra, Barcelona, Spain

MA in Economics (with Honors)

Universidade Católica Portuguesa, Lisbon, Portugal

Licenciatura in Economics (Magna Cum Laude)

REPRESENTATIVE MATTERS

Antitrust

- **Alleged Conspiracies.** Provided expert testimony on an alleged cartel case involving price-fixing, bid-rigging and market allocation. Developed numerous empirical approaches to address materiality and likelihood of such behaviors, and to address the alleged exchange of information among competitors. Estimated potential overcharges.
- **Class Actions Certification and Price-Fixing.** Addressed class certification using various empirical methods to determine similarity of effects across consumers allegedly belonging to the class in a price-fixing conspiracy case.
- **Alleged Manipulations of Oil Price Indices.** Developed empirical approaches to determine whether there was evidence of a material impact of an alleged manipulation of the Platts Index for oil. Studied trading data across all market players to address price materiality, causation, market power and possible motive. Studied other related commodities and markets. Calculated allegedly illegal profits and damages.
- **Alleged Conspiracy among Business Partners.** Developed an innovative approach to detect collusion based on survey data. Studied whether the patterns of responses to a survey by business partners were indicative of collusion and identified potential suspects.
- **Guidelines on Collaboration among Competitors.** Authored the guidelines on best practices for collaborations among competitors on behalf of the Mexican Competition Authority. Advised on how to incorporate these guidelines into the Mexican Antitrust Laws currently under revision. Authored the guidelines on best practices for collaborations among competitors for several Central and South American countries.
- **Collusion Detection in Gasoline Markets.** Developed empirical screens to detect conspiracies in gasoline markets. Applied screens to the US retail and whole sale data. Contributed to the FTC's gasoline monitoring program. Work performed as an FTC economist.
- **Mergers and Acquisitions in Pharmaceuticals.** Worked on various mergers in the pharmaceutical industry and addressed potential anti-competitive effects. Work performed both as an FTC economist and as an economic consultant.
- **Brand Name vs. Generic Pharmaceutical Drugs.** Estimated the effect of generic entry on price, volume and market shares of branded drugs in particular therapeutic areas to estimate the but-for scenario absent of generic entry. Estimated alleged damages.
- **Material Adverse Change in Connection with Acquisitions.** Determined the materiality of a disclosure on the existence of a price-fixing conspiracy sometime in the past, which could have affected a later decision to acquire a company.
- **Merger in the Poultry Industry in Brazil.** Co-authored a report on the estimation of the elasticities of demand across products in the same relevant market in a consummated

acquisition in the Brazilian poultry industry. Estimated efficiency gains and price changes due to the acquisition.

- **Mergers and Acquisitions in the Oil and Gasoline Industry.** Developed various econometric approaches to estimate the possible effect on gasoline prices of major oil company mergers. Some of these approaches required looking into potential for future collusive behavior. Work performed both as an FTC economist and as an economic consultant.
- **Trends and Cycles in Gasoline Prices.** Decomposed movements in gasoline prices between long-run and short-run components, across 365 cities in the United States. Work performed as an FTC economist.
- **Spectral Test for Mergers and Acquisitions.** Developed a new statistical test in the frequency domain and applied it to antitrust market definition in gasoline markets. This test was later used for other applications including in financial markets. Work performed as an FTC economist.
- **Prediction of Hart-Scott-Rodino Filings.** Developed econometric models to predict HSR filings as a function of major economic indicators. Work performed as an FTC economist.
- **Estimation of Likelihood of Success and Duration of Drugs in Clinical Stages.** Co-developed a duration model to estimate the likelihood of success and failure of drugs in each of the clinical stages of the Food and Drug Administration, as a function of various drugs characteristics. The model also estimates the expected duration for each of the drugs based on the same characteristics. Model informs mergers and acquisitions, intellectual property and valuation. Used as supporting evidence in FTC decisions such as in the Genzyme Corporation / Novazyme Pharmaceuticals, Inc., 2003 merger. Work performed as an FTC economist and as an economic consultant.
- **Mergers and Acquisitions in Other Areas.** Worked on mergers and acquisitions in various other industries such as sporting goods, cable television, boats, railroads, appliances, entertainment, animal feed ingredients, aspartame and other artificial sweeteners, supermarkets, and real estate.

Health Care

- **Health Care Costs and Innovation.** Developed a new econometric approach to estimate the contribution of technological progress to the increase in health care expenditures in the United States over the last four decades.
- **Benefits of Health Care Spending.** Developed simple econometric models to assist in determining if countries spending more on health care also experience greater benefits from such spending.

Finance

- **Credit Ratings and Risk.** Analyzed the evolution of structured finance ratings during the eruption of the latest financial crisis in the United States. Timed these changes with various

measures of increased risk in the market and disclosures of exposures to this risk by major financial institutions.

- **Valuation of Structured Finance Securities.** Analyzed econometric models and assumptions used to value structured finance securities, namely RMBS and CDOs, during the eruption of the financial crisis. Evaluated models' sensitivities to stress scenarios and calibrations. Developed models for RMBS cumulative losses based on corporate default models, and tested model implications on mortgages correlations, crossed-pool correlations, and volatility of house price growth and of cumulative losses against actual and forecasted data.
- **Risk Assessment in the Financial Crisis.** Developed and implemented a sophisticated Markov Regime Switching Model to identify the evolution of risk in ABX indices from 2007 through 2009, which allowed for five different states of variable intensity and volatility. Applied various measures of relative risk in the literature to the financial crisis.
- **Analysis of Disclosures during the Subprime Mortgages Crisis.** Matched companies' disclosures of information related to the exposure of particular assets to the evolution of risk in the market place.
- **Valuation of Expropriated Assets in the Oil Industry.** Provided testimony on an international arbitration matter on the value of expropriated assets belonging to a publicly traded oil services company in Central America.
- **Valuation in the Pharmaceutical and Biotechnology Industries.** Opined on the a of the price offered by a major pharmaceutical company to purchase a leading biotechnology company. Used discounted cash flow models and event studies. Estimated the value of the biotechnology R&D pipeline.
- **Section 10b-5 Securities Litigation.** Used event studies to estimate the effect of alleged frauds on companies' stock prices and the economic value of the effect.
- **Alleged Manipulations of Stock Prices.** Developed empirical approaches to determine whether an alleged revenue management episode in the computer industry materially affected the stock price of the company.
- **Alleged Manipulations of Hedge Funds Accounts.** Developed empirical approaches to estimate the likelihood that the observed patterns in trading and in profits by a particular trader were the result of a manipulation to maximize profits of specific accounts.
- **Alleged Conspiracy between Brokers and Dealers.** Estimated but-for transaction prices in an alleged conspiracy between brokers and dealers of a major financial institution. Evaluated execution quality when compared to unsuspected benchmarks. Estimated allegedly illegal profits and consumers' disadvantage.
- **Commodities Futures Contracts Alleged Manipulations.** Developed empirical approaches to determine whether commodities futures prices of various precious metals were manipulated. Defined relevant markets, estimated price artificiality, addressed causation and

market power. Studied floor and electronic trading, and where price discovery took place. Linked analyses to cash markets and related commodities. Estimated but-for trading, allegedly illegal profits, and potential damages.

- **Insider Trading.** Analyzed the materiality of the gain allegedly obtained through insider trading. Evaluated stock price reactions and bond prices to the allegedly private and illegally obtained information. Determined the extent to which such information had previously been known and assimilated by the market.
- **Testing for Market Efficiency.** Implemented a variety of statistical tests for market efficiency of particular securities during the financial crisis and compared results with those prior to the crisis. Assessed and explained changes and the appropriateness of the assumption of market efficiency.
- **Analysis of Credit Default Swaps.** Analyzed the information content of credit default swaps and determined the material impact of having only quote data available rather than final transaction prices for the market in general.
- **Stock Options Backdating and Spring Loading.** Developed various empirical screens to determine whether patterns observed in stock price excess returns related to alleged stock options backdating and spring loading were statistically anomalous. Studied the materiality of these events.
- **Trading in Major Stock Exchanges.** Determined whether brokers and dealers in major stock exchanges illegally profited from buying and selling transactions. Estimated allegedly illegal profits and consumers' disadvantage.
- **Materiality of Disclosures.** Investigated whether the disclosure of an alleged conspiracy between members of the same industry materially affected stock prices of the companies in the same industry.
- **Material Adverse Change in Connection with Merger Agreements.** Determined materiality of the stock price response to information not disclosed prior to an acquisition, information which may have affected the acquisition decision itself had it previously been known.

Mass Torts

- **Drug Recalls.** Estimated damages associated with the recall of major blockbuster drugs.
- **Asbestos.** Estimated damages associated with construction workers' exposure to asbestos.

Other

- **Macroeconomic Effects of Airport Expansion.** Estimated the macroeconomic and sectors specific impacts of the expansion of the Lisbon airport into the Portuguese economy.

- **Postal Services Modeling.** Developed a new econometric model to predict demand for the United States Postal Service. Model results assisted management on decisions related to pricing and product innovations.
- **Daily Gasoline Pricing Forecast.** Developed an econometric model for a major oil company to predict daily gasoline prices for all its competitors at the terminal level, and across all terminals in the United States. The model significantly improved analysts' forecasts and assisted daily pricing decisions.
- **Patent infringement in Medical Devices.** Estimated lost profits due to alleged patent infringement in the medical device industry.

SELECTED PUBLICATIONS

Conspiracies, Manipulations and Empirical Screens

“How Far Can Screens Go in Detecting Explicit Collusion? New Evidence From the Libor Setting,” with Albert D. Metz, *Competition Policy International Antitrust Chronicle*, March (1) 2012.

“Revolution in Manipulation Law: The New CFTC Rules and the Urgent Need for Economic and Empirical Analyses,” with Gabriel Rauterberg and Andrew Verstein, *University of Pennsylvania Journal of Business Law*, forthcoming, February 2012.

“The Multiple Applications of Screens in Finance: Manipulations, Conspiracies, Insider Trading, FCPA Violations, and Other Fraud,” March 2012.

“Why and How to Use Empirical Screens in Antitrust Compliance?” *Competition Policy International Antitrust Chronicle*, February (1) 2012.

“Defending Against Allegations of Fraud and Manipulation: The Role of the Economist under the New CFTC Rules,” December 2011.

“Design and Implementation of Screens and Their Use by Defendants,” *Competition Policy International Antitrust Chronicle*, September (2) 2011.

“Libor Litigation and the Role of Screening: The Need for Enhanced Compliance Programs,” *Competition Policy International Antitrust Chronicle*, July (2), 2011.

“LIBOR Manipulation?” with Michael Kraten, Albert D. Metz and Gim Seow, *Journal of Banking and Finance*, 36, 136-150, 2012.

“Tracking the Libor Rate,” with George G. Judge and Sofia B. Villas-Boas, *Applied Economics Letters*, 18, 893-899, 2011.

“Investigating the Libor Rate,” with Sofia B. Villas-Boas, Working Paper, 2010.

“Screens for Conspiracies and Their Multiple Applications - Extended,” with Patrick Bajari, *Competition Policy International Journal*, 6(2), Autumn 2010.

“The Power of Screens to Trigger Investigations,” *Securities Litigation Report*, Vol. 10, No. 10, November 2010.

“Enhancing Compliance Programs through Antitrust Screening,” with Patrick Bajari and Joseph E. Murphy, *The Antitrust Counselor*, 4(5), September 2010.

“Antitrust Screening: Making Compliance Programs Robust,” with Patrick Bajari and Joseph E. Murphy, Working Paper, July 2010.

“Economic Expert Testimony in Conspiracy Cases Under Federal Antitrust Laws,” with Dina O. Aguilar, Mark Frankena, Kostis Hatzitaskos and David Scheffman, Working Paper, February 2010.

“Screens for Conspiracies and their Multiple Applications,” with Patrick Bajari, *The Antitrust Magazine*, 24(1), Fall 2009.

“The Determinants of Cartel Duration,” with John M. Connor and Albert D. Metz, Working Paper, December 2011.

“Screening for Conspiracies: Applications for Litigation, Pre-Litigation, Regulation and Internal Monitoring,” with Patrick Bajari, March 2009, available at http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=339863.

“Is the Market Being Fooled? An Error-Based Test for Manipulation,” with Sumanth Addanki, available at http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=339863, 2007, revise and resubmit.

“Competition Authorities are Screening for Conspiracies: What are they Likely to Find?” with Luke M. Froeb, *The American Bar Association Section of Antitrust Law Economics Committee Newsletter*, 8(1), 10-16, Spring 2008.

“A Variance Screen for Collusion,” with Luke M. Froeb, John F. Geweke and Chris T. Taylor, *International Journal of Industrial Organization*, 24, 467-486, 2006, *Most Cited International Journal of Industrial Organization Articles*.

Pharmaceuticals and Health Care

“Defining the Cost and Price of Medical Innovation: An Economic Approach,” December 16, 2010, available at <http://www.disruptivewomen.net/2010/12/16/defining-the-cost-and-price-of-medical-innovation-an-economic-framework/>.

“The Contribution of Innovation to Health Care Costs: At Least 50%?” Working Paper, August 2009.

“The Contribution of Technological Advances to the Increase in Health Care Costs: Is this Really Where We Should Be Cutting?” January 2010.

“The Determinants of Pharmaceutical Review, Success and Duration,” with Chris P. Adams and Albert D. Metz, Working Paper, April 2008.

“New Evidence on The Pharmaceutical Pipeline and Its Meaning for Mergers,” *The American Bar Association Section of Antitrust Law Economics Committee Newsletter*, 5(1), 18-23, Spring 2005.

“Empirical Facts and Innovation Markets: Analysis of the Pharmaceutical Industry,” with Chris P. Adams and Albert D. Metz, *The Antitrust Source*, 4(4), March 2005.

“New Evidence On The Pharmaceutical Pipeline and Its Meaning for 2005,” *Pharmaceutical Processing*, January 2005.

“Pharmaceutical Development Phases: A Duration Analysis,” with Chris P. Adams and Albert D. Metz, *Journal of Pharmaceutical Finance, Economics & Policy*, 14, 19–42, 2006.

Monetary and Financial Economics, Theoretical Econometrics and Other Applied Econometrics

“Testing Equalities of Variances for Paired Time Series at Selected Frequencies: An application to Sovereign Credit Default Swaps,” with Albert D. Metz, August 2011.

“Credit Ratings, Market Implied Ratings and Litigation,” with Albert D. Metz, January 2011.

“The Use of the Event Study Methodology in International Arbitration Damages Assessments,” with Santiago Dellepiane, *Journal of International Arbitration*, 28(4), 327-342, 2011.

“The Information Content of Credit Default Swap Prices,” with Cathy Niden, *Derivatives Litigation Reporter*, 14(18), July 2008.

“Before and After the EMU: Monetary Policy and Welfare Changes,” *Journal of International Money and Finance*, forthcoming.

“Before and After the EMU: Financial Integration, Monetary Policy and Welfare Changes,” PhD Dissertation in Economics, University of Chicago, June 2002.

The European Monetary Union—Could there be any ‘Winners’ and ‘Losers’?” Manuscript, University of Chicago, July 2001.

“An Evaluation of the Macroeconomic Stability of the European Monetary Union, and an Original Decomposition of its Business Cycles into Real and Monetary Components,” Manuscript, University of Chicago, June 1999.

Other

“The Effect of Entry on Prices and Costs in Mobile Telephony,” with Pedro Pereira, http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=339863, Working Paper 2008, revise and resubmit.

Book Contributions

Co-author of the chapter on “Corporate Governance and Compliance,” forthcoming in *The Handbook of Antitrust Economics*, May 2012, with D. Daniel Sokol.

Co-drafter of the chapter on “Restraints of Trade,” Volume on “2010 Annual Review of Antitrust Law Developments,” *American Bar Association Editions*, March 2011.

Co-author of a chapter on the “Role of Event Studies in International Arbitration Cases”, forthcoming in the second book of the *Foro de Arbitraje en Materia de Inversión*, titled “Arbitraje en Materia de Inversiones,” Sonia Rodríguez Jiménez and Herfried Wöss (eds.), *Instituto de Investigaciones Jurídicas, Universidad Nacional Autónoma de México*, México.

Co-drafter of the chapter on “The Role of the Economic Expert in Conspiracy Cases,” included in the Volume on “Proof of Conspiracy under Antitrust Federal Laws,” *American Bar Association Editions*, April 2010.

Ongoing Research

“The Use of Screens to Detect UpStream Conspiracies and Manipulations,” with Donald Klawiter.

“Stress-testing RMBS Expected Losses using Structural Models.”

“Using an Event Study to Estimate Damages in the Presence of Autocorrelated Excess Returns,” with Albert D. Metz

“Testing Correlations at Elected Frequencies: An Application to Portfolio Selection,” with Albert D. Metz.

“New Findings on Cartel Duration,” with John M. Connor and Albert D. Metz.

“Screens for Conspiracies and Motions to Dismiss after *Twombly*,” with Donald Klawiter.

“Benefits to Society from Health Care Spending: A Simple International Comparison.”

“How to Detect and Defend Allegations of Manipulation in Energy Markets under the New FTC Rule.”

“Using an Event Study to Value Pharmaceutical and Biotechnology R&D Pipelines.”

“Financial Contagion & Crisis: A Markov Regime Switching Application.”

“Detecting Collusion in Survey Data,” with Albert D. Metz

Short Articles - Viewpoints Postings

Credit Rating Agencies, the Financial Crisis, and Regulation,” April 18, 2012, available at <http://www.globaleconomicsgroup.com/financial-regulation/credit-rating-agencies-the-financial-crisis-and-regulation/>

“The Complexity and Challenges of Proposed Swap Regulations,” April 4, 2012, available at <http://www.globaleconomicsgroup.com/financial-regulation/the-complexity-and-challenges-of-proposed-swaps-regulations/>

“Screens and the Alleged Libor Conspiracy and Manipulation,” March 21, 2012, available at <http://www.globaleconomicsgroup.com/financial-regulation/screens-and-the-alleged-libor-conspiracy-and-manipulation/>

“Has the Libor-Alleged Conspiracy and Manipulation Inspired the New CFTC Regulations?” March 7, 2012, available at <http://www.globaleconomicsgroup.com/financial-regulation/has-the-libor-alleged-conspiracy-and-manipulation-inspired-the-new-cftc-regulations/>

“Honoring the Memory of Dr. Frederick C. Dunbar,” February 23, 2012, available at <http://www.globaleconomicsgroup.com/in-memorium/#>

SELECTED MEDIA COVERAGE

Interviews

“The Libor Probes: An expensive smoking gun - Court documents shed light on how LIBOR was allegedly manipulated,” published April 14, 2012, *The Economist*, pages 80-82, also available at <http://www.economist.com/node/21552586>.

“ABA Section Panel Discusses Compliance Training in 21st Century,” published April 6, 2012, BNA Antitrust and Trade Regulation Report, pages 424-25.

“Special Feature: The Leniency Program, Off the Hook,” published March 2012, MLex Magazine, April-June Issue, pages 8-12, also available at <http://info.mlex.com/mlex-magazine.aspx>.

“Le Scandale Financier qui Arrive par UBS,” published March 26, 2012, Le Temps, page 3, also available at http://www.letemps.ch/Page/Uuid/a63081a6-76ac-11e1-8c74-acd7aad2ec49/Le_Libor_est_le_chiffre_le_plus_important_du_monde.

“Big Banks At Center of Interest Rate Probe: Justice Department Joins Other Nations Investigating Rates,” published March 11, 2012, Interview for CNN, available at http://money.cnn.com/2012/03/11/markets/bondcenter/interest-rate-manipulation/?iid=HP_LN&hpt=hp_t2

“U.S. Probe Presents Dilemma Over Libor,” published March 18, 2011, Interview for the *Wall Street Journal*, pages C1-C8, also available at <http://www.efinancialnews.com/story/2011-03-18/us-libor-probe-includes-bofa-citi-ubs>.

“Skikartenpreise der Wintersportregion "Ski amade" werden überprüft,” published October 18, 2010 at <http://meinegemeinde.vol.at/news/tp:salzburg24:salzburg-news/artikel/skikartenpreise-der-wintersportregion-ski-amade-werden-ueberprueft/cn/news-20101018-03354049>. Interview on empirical methods to detect conspiracies, jointly with Theodor Thanner, Director General of the Austrian Federal Competition Authority, and Christina Hummer, Attorney at Saxinger Chalupsky & Partner.

“Rumblings on a morning commute,” published June 29, 2010, *Fund Strategy*, available at <http://www.fundstrategy.co.uk/opinion/stateside/rumblings-on-a-morning-commute/1014054.article>.

“The Walker Report: What’s Next for Corporate Governance in the UK?” published December 10, 2009, available at <http://www.theglasshammer.com/news/2009/12/10/the-walker-report-whats-next-for-corporate-governance-in-the-uk/>, *The Glass Hammer*.

“Libor Surge Jolts Borrowing Costs,” Interview for *CFO.com*, published September 17, 2008, available at http://www.cfo.com/article.cfm/12259999/c_12244906?f=home_todayinfinance.

“When It Comes to Developing Drugs, The Past Is Precedent,” Interview for *Investor’s Business Daily*, Vol. 21, No. 190, published January 10, 2005.

“Long Clinical Trials Equate to Higher Product Failure Rate,” Interview for *Washington Drug Letter*, FDANews.com, Vol. 36, No. 50, published December 20, 2004.

Other Coverage

“Report: Key Rate may have been manipulated,” *Bloomberg Businessweek*, published March 12, 2012, also available at http://www.upi.com/Business_News/2012/03/12/Report-Key-rate-may-have-been-manipulated/UPI-51761331527021/.

“LIBOR Scandal Reverberates across Financial Markets & Big Banks,” *Credit Card News*, published March 13, 2012, available at <http://www.credit-land.com/news/libor-scandal-reverberates-across-financial-markets-and-big-banks-1353.php>.

“Research Reports from New York University Provide New Insights into Applied Economics,” *Vertical News*, published October 8, 2011, available at <http://www.verticalnews.com/newsletters/Investment-Weekly-News/2011-10-08/73012IV.html>.

“Forensiche Kartellforschung,” *Franffurther Allgemeine*, published August 19, 2011, available at <http://www.faz.net/aktuell/wirtschaft/unternehmen/wettbewerbsoekonomie-forensische-kartellforschung-11108550.html> (Translation: “Forensic Research on Cartels”).

“Stakes are High in Setting the Libor,” *Financial Times*, published March 25, 2011, also available at <http://www.ft.com/cms/s/0/ad9c146e-5718-11e0-9035-00144feab49a.html>.

“Libor Interest Questioned,” *Finance and Economy*, published March 19, 2011, also available at <http://www.finanzinfo.ch>.

“Estimating Drug Probabilities of Success in FDA Clinical Trials,” *Suite1001.com*, published July 9, 2010, available at <http://shares-stocks.suite101.com/article.cfm/estimating-drug-probabilities-of-success-in-fda-clinical-trials>.

“Laboring Over Libor: Pension Risk Matters,” Hotfeeder Business News, published October 16, 2008, available at http://www.hotfeeder.com/business/_217549.

“What’s My Metric? Drug-Company CFOs,” *CFO.com*, published November 29, 2005, available at <http://www.cfo.com/article.cfm/5242743/4?f=search>.

SELECTED PRESENTATIONS

Conspiracies, Manipulations and Econometrics

“21st Century Antitrust Compliance: Beyond the Basics,” panel discussion, joint with Alicia Downey, Theodore Banks, Joseph Murphy and Eric Morehead, American Bar Association, Antitrust Section Spring Meetings, Washington DC, March 2012.

“Beyond Leniency: Empirical Methods of Cartel Detection,” with Donald Klawiter, D. Daniel Sokol, Carlos Mena and Carlos Ragazzo, American Bar Association Brown Bag Series, December 2011.

“The Use of Economic Screens in Antitrust Litigation: The Case of the London Interbank Offered Rate,” Afternoon Speaker Series, New York University Law School. New York, November 2011.

“Alleged Libor Conspiracy and Manipulation: The Role of Screens,” Executive Committee of the New York State Bar’s Antitrust Law Section, New York, October 2011.

“Screens for Conspiracies and Manipulations and Their Multiple Applications,” Portuguese Competition Authority, Lisbon, Portugal, June 2011.

“Competition Compliance: Up Your Game, Add to the Bottom Line, and Be a Corporate Star,” Joint with Theodore Banks, Brian Henry and Joseph Murphy, Corporate Counsel Committee, Canadian Bar Association, June 2011.

“Empirical Methods for Conspiracies and Manipulations,” Executive Committee of the New York State Bar’s Antitrust Law Section, New York, December 2010.

“Screening for Conspiracies,” French Competition Authority, Paris, France; German Competition Authority, Bonn, Germany; October 2010.

“Screening Devices for Detecting Collusion,” Presentation and Panel Discussion with Christina Hummer and Maarten Janssen, Austrian Federal Competition Authority, October 2010.

“Conspiracies Detection and Empirical Screens,” ZEW Conference on Quantitative Analysis in Competition Assessments, Mannheim, Germany, October 2010.

“Screening for a Libor Manipulation,” Microeconomics Lunch Seminar, Department of Economics, Leonard N. Stern School of Business, New York University, May 2010.

“Cartel Detection, Leniency Programs and the Latin America Experience,” Joint with Carlos Mena, November 2009.

“Econometrics and Antitrust,” Joint with David S. Evans, Competition Policy International, November 2009.

“Legal and Economic Analysis of Collusion,” Joint with Patrick Bajari, Competition Policy International, June 2009.

“The Determinants of Cartel Duration,” International Industrial Organization Conference, Boston, April 2009.

“On Detecting Agents’ Influence in Market Data Outcomes,” International Industrial Organization Conference, Boston, April 2009.

“The Empirical Detection of Conspiracies and Manipulations,” Bureau of Economics, Federal Trade Commission, September 2008.

“Globalization, Cartel Formation and Detection,” Knowledge Globalization Annual Conference, Boston, April 2008.

“Detecting Conspiracies and Manipulations,” Sawyer Business School, Suffolk University, Boston, December 2007.

“How to Spot Cheaters? Empirical Methods to Detect Conspiracies and Manipulations,” Instituto Superior de Economia e Gestão, Lisbon, Portugal, July 2007.

“Is the Market being Fooled? An Error-Based Screen for Manipulation,” First Meeting of the Portuguese Economic Journal, Ponta Delgada, Portugal, July 2007.

“A Variance Screen for Collusion,” Portuguese Competition Authority, Lisbon, Portugal, June 2005.

Pharmaceuticals and Health Care

“Is there too much Innovation? Benefits to Society from Technological Progress and its Contribution to Health Care Costs,” International Industrial Organization Conference, Vancouver, Canada, May 2010.

“The Determinants of Pharmaceutical Review, Success and Duration,” International Industrial Organization Conference, Virginia, May 2008.

“Assessing the Prospects of Drugs in the Pipeline,” A Medical Affairs Leadership Conference: The Good, the Bad, and the Emerging, sponsored by Scientific Advantage, New Jersey, May 2008.

“Bringing Drugs to Market: Which Ones? How Fast? What Value?” The Center for Business Intelligence, January 2008.

“Pharmaceutical Development Phases: A Duration Analysis,” Portuguese Authority for Competition, Lisbon, Portugal, November 2005; Federal Trade Commission, Washington D.C., March 2003; Congressional Budget Office, Washington, D.C., March 2003; International Industrial Organization Conference, Boston, April 2003; North American Summer Meetings of the Econometric Society, Chicago, June 2003.

Monetary and Financial Economics

“Before and After the EMU: Financial Integration, Monetary Policy and Welfare Changes,” The University of Chicago, Chicago, May 2002; Board of Governors of the Federal Reserve System, Washington, D.C., February 2002; European Central Bank, Frankfurt am Main, Germany, February 2002; Federal Reserve Bank of St. Louis, St. Louis, February 2002; Bank of England, London, England, January 2002.

“The European Monetary Union – Could there be any ‘Winners’ and ‘Losers’?” The University of Western Australia, Perth, Australia, November 2001; Board of Governors of the Federal Reserve System, Washington, D.C., May 2001; The University of Chicago, Chicago, November 2000.

“The European Monetary Union and its Consequences for Financial Markets,” Banco Bozano Simonsen, Rio-de-Janeiro, Brazil, September 1998.

PROFESSIONAL AFFILIATIONS AND HONORS

Member, The International *Who’s Who* of Competition Lawyers & Economists.

Associate Member, American Bar Association.

Member of the Econometric Society, the American Economic Association and Industrial Organization Society.

Fellowships from Fundação Calouste Gulbenkian, Portugal, 1999-2002; the Portuguese Government – PRAXIS XXI, 1995-1999; and Luso-American Foundation for Development, Portugal, 1995-1999. Scholarship from Universitat Pompeu Fabra, Ph.D Program, Spain, 1995-1996.

OTHER

Referee, *Journal of Political Economy*, *The Review of Industrial Organization*, the *International Journal of Industrial Organization*, *Southern Economic Journal* and the *Journal of Law, Economics and Organization*.

Member, Editorial Advisory Board, *The Antitrust Chronicle*, *Competition Policy International*.