

## PIERLUIGI BALDUZZI

### Degrees

- Doctor of Philosophy in Economics, University of California at Los Angeles (UCLA), September 1991.
- B.A. in Economics, Bocconi University, Milan, Italy, March 1986.

### Appointments

- Journal of Business and Economic Statistics, 2006-2017: Associate Editor.
- Journal of Financial Econometrics, 2002-2012: Associate Editor.
- Department of Finance, Boston College (Carroll). September 2008-: Full professor. September 2000-August 2008: Associate Professor. September 1997-August 2000: Assistant Professor.
- Department of Finance, NYU (Stern). September 1991-August 1997: Assistant Professor.

### Published and Forthcoming Articles

- “COVID-19 and Credit Constraints: Survey Evidence from Italian Firms.” (With E. Brancati, M. Brianti, and F. Schiantarelli.) Forthcoming, *Journal of Monetary Economics*.
- “Political Risk, Populism and the Economy.” (With E. Brancati, M. Brianti, and F. Schiantarelli.) *The Economic Journal* 133 (2023), 1677–1704 (leading article). (Non-technical summary in VOX-EU, February 20, 2020: “Populism, political risk and the economy: What we can learn from the Italian experience.”)
- “Anatomy of a Sovereign Debt Crisis: Machine Learning, Real-time Macro Fundamentals, and CDS Spreads.” (With R. Savona and L. Alessi.) *Journal of Financial Econometrics* June (2022).
- “Real Exchange Rates and Foreign Currency Risk Premia.” (With E. Chiang.) *Review of Asset Pricing Studies* 10 (2020), 94–121.
- “Heterogeneity in Target-date Funds: Optimal Risk Taking or Risk Matching?” (With J. Reuter.) *Review of Financial Studies* 32 (2019), 300–337. (NBER Working Paper No. 17886)
- “Financial Markets, Banks’ Cost of Funding, and Firms’ Decisions: Lessons from Two Crises.” (With E. Brancati and F. Schiantarelli.) *Journal of Financial Intermediation* 36 (2018), 1–15. (Non-technical summary in VOX-EU, November 09, 2018: “Crowding out risk: Sovereign debt, banks, and firms investment in Italy.”)
- “Economic Risk Premia in the Fixed Income Markets: The Intra-day Evidence.” (With F. Moneta.) *Journal of Financial and Quantitative Analysis* 52 (2017), 1927–1950.
- “A Simple Test of the Affine Class of Term-structure Models.” (With E. Chiang.) *Review of Asset Pricing Studies* 2 (2012), 203–244.

- “Asset-pricing Models and Economic Risk Premia: A Decomposition.” (With Cesare Robotti.) *Journal of Empirical Finance* 17 (2010), 54–80.
- “Mimicking Portfolios, Economic Risk Premia, and Tests of Multi-beta Models.” (With Cesare Robotti.) *Journal of Business and Economic Statistics* 26 (2008), 354–368.
- “Money and Asset Prices in a Continuous-time Lucas and Stokey Cash-in-advance Economy.” *Journal of Economic Dynamics and Control* 31 (2007), 2713–2743.
- “Testing Heterogeneous-agent Models: An Alternative Aggregation Approach.” (With T. Yao.) *Journal of Monetary Economics* 54 (2007), 369–412.
- “Portfolio Choice and Trading in a Large 401(k) Plan.” (With J. Agnew and A. Sundén.) *American Economic Review* 93 (2003), 193–205.
- “Economic News and Bond Prices: Evidence from the U.S. Treasury Market.” (With E. Elton and C. Green.) *Journal of Financial and Quantitative Analysis* 36 (2001), 523–543.
- “Predictability and Transaction Costs: The Impact on Rebalancing Rules and Behavior.” (With A. Lynch.) *Journal of Finance* 55 (2000), 2285–2309.
- “Transaction Costs and Predictability: Some Utility Cost Calculations.” (With A. Lynch.) *Journal of Financial Economics* 52 (1999), 47–78.
- “Interest Rate Targeting and the Dynamics of Short-Term Rates.” (with G. Bertola, S. Foresi, and L. Klapper.) *Journal of Money, Credit, and Banking* 30 (1998), 26–50. (NBER Working Paper No. 5944)
- “The Central Tendency: A Second Factor in Bond Yields.” (With S.R. Das and S. Foresi.) *Review of Economics and Statistics* 80 (1998), 62–72. (NBER Working Paper No. 6325)
- “A Model of Target Changes and the Term Structure of Interest Rates.” (With G. Bertola and S. Foresi.) *Journal of Monetary Economics* 39 (1997), 223–249. (NBER Working Paper No. 4347)
- “Price Barriers and the Dynamics of Asset Prices in Equilibrium.” (With S. Foresi and D.J. Hait.) *Journal of Financial and Quantitative Analysis* 32 (1997), 137–159 (leading article).
- “Risk Premia and Variance Bounds.” (With H. Kallal.) *Journal of Finance* 52 (1997), 1913–1949.
- “Yield-Curve Movements and Fiscal Retrenchments.” (With G. Corsetti and S. Foresi.) *European Economic Review* 41 (1997), 1675–1685.
- “A Simple Approach to Three-Factor Affine Models of the Term Structure.” (With S.R. Das, S. Foresi, and R. Sundaram.) *Journal of Fixed Income* 6 (1996), 43–53.
- “Inflation and Asset Prices in a Monetary Economy.” *Economics Letters* 53 (1996), 67–74.
- “Minimal Returns and the Breakdown of the Price-Volume Relation.” (With H. Kallal and F. Longin.) *Economics Letters* 50 (1996), 265–269.
- “Money, Transactions, and Portfolio Choice.” (With S. Foresi.) *Research in Economics* 50 (1996), 57–68.
- “Asset Price Dynamics and Infrequent Feedback Trades.” (With G. Bertola and S. Foresi.) *Journal of Finance* 50 (1995), 1747–1767. (Reprinted in “New Research in Financial Markets.” Bruno Biais and Marco Pagano eds. Oxford University Press, 2002).
- “Stock Returns, Inflation, and the ‘Proxy Hypothesis:’ a New Look at the Data.” *Economics Letters* 48 (1995), 47–43.

## Book Chapters

- “U.S. Treasury Market: The High-frequency Evidence.” (With F. Moneta.) *Handbook of Fixed Income Securities*, Veronesi ed., Wiley (2016).
- “Stochastic Mean Models of the Term Structure of Interest Rates.” (With S. R. Das, S. Foresi, and R. Sundaram.) *Advanced Fixed-Income Valuation Tools*, Tuckman and Jagadeesh eds. Wiley (2000).

## Policy Papers

- “Investing the Social Security Trust Fund in Equities.” (With A. Munnell.) *AARP Public Policy Institute* (1998).

## Working Papers

- “Greek-based Bond Factors.” (With A. Marcus and M. Connolly.)

## Work in Progress

- “R-squareds in the Cross-section and the Time-series.” (With T. Bonafini and R. Savona.)

## Permanent Working Papers

- “Parameter Uncertainty and International Investment in a Multi-Period Setting.” (With L. Liu.)
- “Survey Forecasts and the Time-Varying Second Moments of Stock and Bond Returns.” (With C. Lan.)
- “Transfer Activity in 401(k) Plans.” (With J. Agnew.)

## Conference Presentations

2023 International Conference on Sovereign Bond Markets: discussion of “Intermediary Balance Sheets and the Treasury Yield Curve.” 2017 American Finance Association Meetings: presentation of “Real Exchange Rates and Foreign Currency Risk Premia.” 2016 Western Finance Association Meetings: presentation of “Financial Markets, Banks’ Cost of Funding, and Firms’ Decisions: Lessons from Two Crises.” 2015 Econometric Society Meetings: discussion of “Monetary Policy Risks in the Bond Markets and Macroeconomy,” by Shaliastovich and Yamarthy. 2014 American Economic Association Meetings: discussion of “Risk Premia in the 8:30 Economy,” by Faust and Wright. 2013 American Finance Association Meetings: presentation of “Survey Forecasts and the Time-varying Second Moments of Stock and Bond Returns.” 2012 Deutsche Bank Annual Global Quantitative Strategies Conference: presentation of “Survey Forecasts and the Time-varying Second Moments of Stock and Bond Returns.” 2012 Northern Finance Association Meetings: presentation of “Survey Forecasts and the Time-varying Second Moments of Stock and Bond Returns;” discussion of “Performance Measurement with Market and Volatility Timing and Selectivity,” by Ferson and Mo. 2012 European Finance Association Meetings: presentation of “Heterogeneity in Target-date Funds and the Pension Protection Act of 2006;” discussion of “Dynamic Trading with Predictable Returns and Transaction Costs,” by Garleanu and Pedersen, and “Financial Sector Linkages and the Dynamics of Bank and Sovereign Credit Spreads,” by Kallestrup, Lando, and Murgoci. 2012 Inquire UK: presentation of “Economic Risk Premia in the Fixed Income Markets: The Intra-day Evidence.” 2012 Asset Pricing Retreat: presentation of “Economic Risk Premia in the Fixed Income Markets: The Intra-day

Evidence.” 2012 American Finance Association Meetings: presentation of “Economic Risk Premia in the Fixed Income Markets: The Intra-day Evidence.” 2011 Conference on Advances in the Analysis of Hedge Fund Strategies, Imperial College: presentation of “Economic Risk Premia in the Fixed Income Markets: The Intra-day Evidence.” 2011 Northern Finance Association Meetings: presentation of “Economic Risk Premia in the Fixed Income Markets: The Intra-day Evidence.” 2010 Greenline Conference: discussion of “The Consumption of Active Investors and Asset Prices,” by Zawadowski. 2009 MTS Conference on Financial Markets: panel discussion on “Fixed Income Markets and the Crisis.” 2009 American Economic Association Meetings: discussion of “The Impact of Individual Investment Behavior for Retirement Welfare: Evidence from the United State and Germany” by Post, Grundl, Schmidt, and Zimmer. 2006 Citigroup Quant Conference: presentation of “Mimicking Portfolios, Economic Risk Premia, and Tests of Multi-beta Models.” 2004 ESF-CEPR Conference on Dynamic Portfolio Choice, Asset Pricing, and Mathematical Finance: presentation of “Parameter Uncertainty and International Investment in a Multi-period Setting.” 2003 PIER-IGIER Conference on Econometric Methods in Finance and Macroeconomics: discussion of “The Macroeconomy and the Term Structure” by Diebold, Rudebusch, and Aruoba. 2003 ECB-FRBNY Workshop on Monetary Policy and the Money Market: discussion of “Spillovers Across U.S. Financial Markets,” by Rigobon and Sack. 2003 Wharton Conference on Household Portfolio-Choice and Financial Decision-Making: presentation of “What Do We Do with Our Pension Money: Recent Evidence from 401(k) Plans.” 2003 American Finance Association Meetings: presentation of “What Do We Do with Our Pension Money: Recent Evidence from 401(k) Plans” and discussion of “Captured Money? Differences in the Performance Characteristics of Retail and Institutional Mutual Funds,” by James and Karceski. 2001 Western Finance Association Meetings: presentation of “Parameter Uncertainty and International Investment” and discussion of “Structural Models of Corporate Bond pricing: An Empirical Analysis,” by Eom, Helwege, and Huang. 2001 American Finance Association Meetings: presentation of “Does Heterogeneity Matter for Asset Pricing?” 2000 Western Finance Association Meetings: presentation of “Nonlinearities in U.S. Treasury Rates: A Semi-Nonparametric Approach.” 2000 NBER University Research Conference on Asset Pricing and Portfolio Allocation: discussion of “Asset Pricing with Heterogeneous Consumers and Limited Participation: Empirical Evidence” by Brav, Constantinides, and Geczy. 2000 Econometric Society Winter Meetings: presentation of “Money, Market Equilibrium, and Stock-Return Predictability;” discussion of “Generalized Numeraire Portfolios” by DeSantis, Gerard, and Ortu. 1999 CIRANO Conference on Intertemporal Asset Pricing: presentation of “Money, Market Equilibrium, and Stock-Return Predictability.” 1999 Western Finance Association Meetings: discussion of “The Forward Premium Puzzle: Different Tales from Developed and Emerging Economies,” by Bansal and Dahlquist. 1999 Annual Derivatives Securities Conference: presentation of “Nonlinearities in U.S. Treasury Rates: A Semi-Nonparametric Approach.” 1998 European Finance Association Meetings: presentation of “The Impact of Predictability and Transaction Costs on Portfolio Choice in a Multi-Period Setting” and discussion of “Global Diversification, Growth and Welfare with Imperfectly Integrated Markets for Goods,” by Dumas and Uppal. 1998 Society for Nonlinear Dynamics and Econometrics Meetings: presentation of “Nonlinearities in U.S. Treasury Rates: A Semi-Nonparametric Approach.” 1998 American Finance Association Meetings: presentation of “Stochastic-Mean Models of the Term Structure of Interest Rates” and discussion of “A Model for Studying the Effects of EMU on European Yield Curves,” by Lund. 1997 Japan Economic Seminar: discussion of “An Analysis of Bidding in the Japanese Government Bond Auctions,” by Hamao and Jagadeesh. 1997 Western Finance Association Meetings: discussion of “Do Interest Rates really Follow Continuous-Time Markov Diffusions?” by Ait-Sahalia. 1996 Utah Winter Finance Conference: presentation of “Risk Premia and Variance Bounds.” Fall 1996 NYU-Columbia Finance Seminar: presentation of “Transaction Costs and Predictability: Some Utility Costs Calculations.” 1996 Western Finance Association Meetings: presentation of “Transaction Costs and Predictability: Some Utility Costs Calculations” and “Risk Premia and Variance Bounds.” 1996 Colloquia on Economic Research, IGIER, Milan, Italy: presentation of “Risk Premia and Variance Bounds.” 1996 Utah Winter Finance Conference: discussion of “A Nonparametric Model of Term Structure Dynamics and the Market Price for Interest Rate Risk,” by Stanton. 1996 Econometric Society Winter Meetings: presentation of “Risk Premia and Variance Bounds.” Spring 1996

NYU-Columbia Finance Seminar: discussion of “Tests of Alternative International Asset Pricing Models,” by Vassalou. 1995 European Finance Association Meetings: presentation of “The Central Tendency: A Second Factor in Bond Yields,” “Asset Values and Policy Changes: The Case of Denmark;” discussion of “Estimating and Testing Exponential-Affine Term Structure Models by Kalman Filter,” by Duan and Simonato. 1994 Econometric Society Winter Meetings: presentation of “Nonlinearities in Asset Prices and Infrequent Noise Trading.” Fall 1994 NYU-Columbia Seminar: discussion of “Discriminatory versus Uniform Treasury Auctions—Evidence from When-Issued Transactions,” by Nyborg and Sundaresan. 1993 Western Finance Association Meetings: presentation of “Nonlinearities in Asset Prices and Infrequent Noise Trading.” Spring 1993 NBER Monetary Economics Meeting: presentation of “A Model of Target Changes and the Term Structure of Interest Rates.” Fall 1992 NYU-Columbia Finance Seminar: presentation of “A Model of Target Changes and the Term Structure of Interest Rates.” Spring 1992 NYU-Columbia Finance Seminar: discussion of “Real and Nominal Interest Rates: A Discrete-Time Model and its Continuous-Time Limit,” by Sun. 1991 Conference on Monetary and Fiscal Policy in Dynamic General Equilibrium Models, Barcelona, Spain: presentation of “Money and Asset Prices: Evidence from an Artificial Economy.” 1991 Society for Economic Dynamics and Control Meetings: presentation of “Money and Asset Prices: Evidence from an Artificial Economy.”

## Invited Seminar Presentations

2013, Bocconi University: “Banks’ Market Valuations and Firms’ Decisions: Lessons from Two Crises.”  
 2013, University of Brescia: “Banks’ Market Valuations and Firms’ Decisions: Lessons from Two Crises.”  
 2013, College of William and Mary: “Survey Forecasts and the Time-varying Second Moments of Stock and Bond Returns.” 2011, UNC Charlotte: “Economic Risk Premia in the Fixed Income Markets: The Intra-day Evidence.” 2008, European Central Bank: “Asset-pricing Models and Economic Risk Premia: A Decomposition.” 2007, Ente Einaudi, Italy: “Asset-pricing Models and Economic Risk Premia: A Decomposition.” 2007, University of Brescia, Italy: “Asset-pricing Models and Economic Risk Premia: A Decomposition.” 2007, SAC Capital Management, “Transfer Activity in 401k Plans.” 2007, Kansas University, “Transfer Activity in 401k Plans.” 2006, Indiana University, “Transfer Activity in 401k Plans.” 2006, University of Brescia, Italy: “Rebalancing Activity in 401k Plans.” 2006, HEC Montreal: “Rebalancing Activity in 401k Plans.” 2006, University of Arizona: “Rebalancing Activity in 401k Plans.” 2005, Board of Governors of the Federal Reserve System: “Rebalancing Activity in 401k Plans.” 2004, University of Minnesota: “What Do We Do with Our Pension Money: Recent Evidence from 401(k) Plans.” 2003, University of Brescia, Italy: “Parameter Uncertainty and International Investment in a Multi-period Setting.” 2003, Carnegie-Mellon University: “Parameter Uncertainty and International Investment in a Multi-period Setting.” 2003, Rutgers University: “Parameter Uncertainty and International Investment in a Multi-period Setting.” 2001, University of Houston: “Portfolio Choice, Trading, and Returns in a Large 401(k) Plan.” 1998, University of North Carolina: “Transaction Costs, Predictability, and Dynamic Portfolio Choice.” 1998, University of Massachusetts at Amherst: “Non-Linearities in U.S. Treasury Yields: A Semi-Nonparametric Approach.” 1998, Stockholm School of Economics: “Economic News and the Yield Curve: Evidence from the U.S. Treasury Market.” 1998, Norwegian School of Management: “Economic News and the Yield Curve: Evidence from the U.S. Treasury Market.” 1997, Tufts University: “Economic News and the Yield Curve: Evidence from the U.S. Treasury Market.” 1997, Boston College: “Economic News and the Yield Curve: Evidence from the U.S. Treasury Market.” 1997, Boston University: “Transaction Costs and Predictability: Some Utility Costs Calculations.” 1997, University of Utah: “Economic News and the Yield Curve: Evidence from the U.S. Treasury Market.” 1997, Dartmouth College: “Economic News and the Yield Curve: Evidence from the U.S. Treasury Market.” 1993, Queen’s University: “Money and Asset Prices: Evidence from an Artificial Economy.” 1991, NYU (job market): “Money and Asset Prices: Evidence from an Artificial Economy.” 1991, University of Western Ontario (job market): “Money and Asset Prices: Evidence from an Artificial Economy.” 1991, University of Washington, Seattle (job market): “Money and Asset Prices: Evidence from an Artificial Economy.” 1991, University of British

Columbia (job market): “Money and Asset Prices: Evidence from an Artificial Economy.”

## Conference Committees

- 2023 International Conference on Sovereign Bond Markets
- 1999 Meetings of the Financial Management Association, in Europe.
- 1999 Meetings of the Society for Computational Economics.

## Refereeing Activity

### Journals and Grants

American Economic Review; Annals of Operations Research; Decisions in Economics and Finance; Econometrica; Economic Journal; Economics Letters; European Economic Review; Financial Markets Institutions, and Instruments; Financial Review; International Economic Review; International Review of Economics and Finance; Japan and the World Economy; Journal of Applied Econometrics; Journal of Banking and Finance; Journal of Business; Journal of Econometrics; Journal of Economic Dynamics and Control; Journal of Economics and Business; Journal of Empirical Finance; Journal of Finance; Journal of Financial and Quantitative Analysis; Journal of Financial Economics; Journal of Financial Intermediation: Journal of Financial Research; Journal of International Economics; Journal of International Money and Finance; Journal of Monetary Economics; Journal of Money, Credit, and Banking; Journal of Political Economy; Journal of Real Estate Finance and Economics; Journal of the European Economic Association; Macroeconomic Dynamics; Management Science; Manchester Business School; National Science Foundation; Quarterly Journal of Economics; Quarterly Review of Economics and Finance; Research Grants Council, City University of Hong Kong; Review of Derivatives Research; Review of Economics and Statistics; Review of Finance; Review of Financial Studies; Rivista di Politica Economica.

### Other

- Committee for Evaluation of Scientific Research, Ministry of Education, Italy.
- External promotion reviewer: University of St. Thomas, George Washington University, HEC Paris, Georgetown University.
- External reviewer: Leigh University, Finance Department.

## Dissertation Committees

- Member, Xinyang Li, 2022, Boston University, Associate, BlackRock.
- Member, Michael Connolly, 2019, Boston College, Assistant Professor, Colgate University.
- Chair, Ali Ebrahim Nejad, 2016, Boston College, Associate, Cornerstone Research.
- Co-chair, Saeid Hoseinzade, 2016, Boston College, Assistant Professor, Suffolk University.
- Member, Bianca Werner, 2016, Boston College, Office of the Comptroller of the Currency.
- Member, Lei Li, Ph.D. 2011, Boston College: Assistant Professor, University of Kansas.
- Member, Zhe Xu, Ph.D. 2010, Boston College: Associate, Barclays Capital.

- Member, Umut Gokcen, Ph.D. 2010, Boston College: Assistant Professor, Koc University, Turkey.
- Chair, Chunhua Lan, Ph.D. 2009, Boston College: Assistant Professor, University of New South Wales, Australia.
- Chair, Fabio Moneta, Ph.D. 2009, Boston College: Assistant Professor, Queen's University, Canada.
- Chair, Ethan Chiang, Ph.D. 2009, Boston College: Assistant Professor, University of North Carolina, Charlotte.
- Member, George Aragon, Ph.D. 2005, Boston College: Assistant Professor, Arizona State University.
- Member, Mariano Kulish, Ph.D. 2005, Boston College (Economics): Economist, Reserve Bank of Australia.
- Member, Paola Zerilli, Ph.D. 2005, Boston College (Economics): Lecturer, University of York, England.
- Member, Ludan Liu, Ph.D. 2004, Boston College: Associate, Deutsche Bank.
- Co-chair, Ozgur Demirtas, Ph.D. 2003, Boston College: Assistant Professor, Baruch College.
- Chair, Gergana Jostova, Ph.D. 2002, Boston College: Assistant Professor, George Washington University.
- Chair, Julie Agnew, Ph.D. 2001, Boston College: Assistant Professor, College of William and Mary.
- Chair, Tong Yao, Ph.D. 2001, Boston College: Assistant Professor, University of Arizona.
- Co-chair, Cesare Robotti, Ph.D. 2001, Boston College: Economist, Federal Reserve Bank of Atlanta.
- Member, Juan Carlos Sosa, Ph.D. 2000, Boston College: Associate, State Street Bank.
- Member, Evren Ors, Ph.D. 1999, Boston College: Assistant Professor, University of Southern Illinois at Carbondale.
- Member, N.R. Radakrishnan, Ph.D. 1997, New York University.
- Member, Young-Ho Eom, Ph.D. 1996, New York University: Economist, Federal Reserve Bank of New York.

## Fellowships and Awards

- National Bureau of Economic Research. 2011: Research Fellowship.
- Center for Retirement Research, Boston College. 2000–2001, 2002–2003: Research Fellowship.
- Glucksman Institute, New York University. 1997: Best Working Paper Prize.
- Innocenzo Gasparini Institute for Economic Research (IGIER), 1991: Research Fellowship.
- Alfred P. Sloan Foundation. 1990–1991: Dissertation Fellowship.
- UCLA, Program in Applied Econometrics. 1989–1990: Dissertation Fellowship.
- Assicurazioni Generali. 1987–1988: Doctoral Fellowship.
- Ente Einaudi. 1986–1987, 1988–1989: Doctoral Fellowship.

## Other Appointments and Outside Activities

- MTS S.P.A., Rome, Italy. January 2013-2016: Member, Collegio dei Probiviri.
- MTS S.P.A., Rome, Italy. January 2011-2013: Member, “Wise Men” Committee.
- Polaris Investments Sgr., Milan, Italy. January-December 2010: Member, Advisory Board.
- Foley-Hoag. April-May 2008, May-June 2009: Consultant, Expert Witness.
- Weiss Asset Management. February 2006-April 2006: Consultant.
- Standish-Mellon Asset Management. November 2004-December 2004: Consultant.
- Investment Banking Group, University of Chicago. November 2003: Instructor, Fixed Income Seminar.
- Master in Money and Finance, University of Brescia, Italy. May 2002, May 2003, May 2004, May 2005, May 2006, May 2007, May 2008, May 2009: Fixed Income Seminar.
- Social Security Administration. December 1999-February 2000: Consultant.
- MidFirst Bank, Oklahoma City. August-December 1997: Consultant.
- Credit Suisse-First Boston. July-August 1997: Instructor, Fixed Income Seminar.
- Nomura Securities International. September 1994: Instructor, Fixed Income Seminar.
- International Monetary Fund, Washington D.C. July-September 1988: Intern, Central Banking Department.