

HAYNE ELLIS LELAND

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Last Revised: December 9, 2008

EDUCATIONAL BACKGROUND

Undergraduate Harvard University

Graduate Studies: London School of Economics
M.Sc. (Econ.)

Harvard University, Ph.D., Economics
Thesis: "Dynamic Portfolio Theory"

ACADEMIC POSITIONS

1990-present Arno Rayner Professor of Finance and Management, Haas School of Business,
University of California, Berkeley

1991-2001 Director, Berkeley Program in Finance

1978-1990 Professor, School of Business Administration, University of California, Berkeley

1979-1982 Chairman, Finance Group, School of Business Administration, University of
California, Berkeley

1974-1978 Associate Professor, School of Business Administration, University of California,
Berkeley

1968-1974 Assistant Professor, Department of Economics, Stanford University

2005 Visiting Scholar, Institut d'Etudes Politiques de Paris ("Sciences Po")

1999 Visiting Professor, UCLA

1999 Academic Visitor, U.S. Federal Reserve Bank, Washington D.C.

1998 Visiting Scholar, Financial Markets Group, London School of Economics

- 1997 Academic Visitor, University of Toulouse
- 1983-1984 Visiting Scholar, Ministere des Finances, Paris, France

AWARDS, HONORS

- 2008 Stephen A. Ross Prize in Financial Economics
- 2008 Lifetime Achievement Award, Financial Intermediation Research Society (FIRS)
- 2007 Honorary Doctorate (Docteur Honoris Causa), University of Paris, Dauphine
- 2006 Selected to give Princeton Lectures in Finance
- 2000-present Fellow, American Finance Association (one of 25 initial members)
- 2001-present Fellow, Financial Management Association
- 1999 Graham and Dodd Scroll Award, Financial Analysts Journal
- 1999 Recognition for Contributions to Finance, Financial Management Association
- 1998 Recognition for Service and Leadership, American Finance Association
- 1998 University Medal, University of Toulouse (France)
- 1997 President, American Finance Association,
(Vice President and Program Chair, 1996)
- 1997 Roger Murray Prize, Institute for Quantitative Analysis
- 1987 Named "Businessman of the Year" (one of 12) by Fortune Magazine, 1987.

PROFESSIONAL ACTIVITIES

- 2007-present Independent Trustee, Barclays Global Investors Funds
- 2003-2008 Advisory Board, Swiss National Science Foundation
- 2002-present Scientific Advisory Board, Europlace Institute of Finance
- 2003-2006 Policy Committee, Goldman Sachs Credit Indices

- 2003-2005 Scientific Advisory Board, Wells Capital Management
- 1995-1999 Board of Directors, American Finance Association
- 1998-2003 M.Sc. Program Advisory Board, University of Singapore
- 1994-1997 Advisory Board, MBA Program, ITAM (Mexico)
- 1989-1993 Nikko/LOR Research Advisory Board
- 1986-1990 New Products Advisory Committee, Chicago Mercantile Exchange
- Associate Editor: Financial Management, 1999-
Journal of Economic Theory, 1975-1980
International Economic Review, 1972-1979
- Committees: Presidential Selection Committee, American Finance Association, 1981
- Visiting Academic
Review Committees: UCLA Finance Group (1999); Wharton School Finance Group (1992);
UCLA Business School (1987); Santa Clara Finance Group (1984)
- External Reviewer: Numerous external chair/tenure/promotion cases
- Keynote Speaker: University of Venice, GRETA Credit Risk Conference, 2008
Financial Intermediation Research Society, 2008
National Taiwan University, 2008
Deutsche Bundesbank/Bank of International Settlements, 2007
NHH (Bergen), Karl Borch Lecture, 2007
Moody's/Copenhagen Conference on Credit Risk, Keynote 2007
Princeton Lectures in Finance, 2006 (3 lectures)
CSEF-IGIER Symposium on Economics and Institutions, Capri, 2006
Guttman Center, Vienna, 2005
Waseda University, Tokyo, 2004 (3 lectures)
EuroPlace Finance Conference, Keynote Speaker, 2003
GRETA Credit Risk Conference, Keynote speaker, 2002
Financial Management Association, Keynote Address, 1999
University of New South Wales, Keynote Address, 1999
American Finance Association, Presidential Address, 1998
London School of Economics, Robbins Lecture, 1998
University of Toulouse, CCF Bank Lecture, 1997
French Finance Association (AFFI), Keynote Address, Tunis, 1994

Invited Papers:

- American Institute for Management Research (AIMR), 1998
- Bank for International Settlements, 2002, 2007
- Boston College, 2002
- California Institute of Technology, 1979, 1980
- Cambridge University (Churchill College), 1978
- Catholic University, Santiago, Chile 2006
- Columbia University, 1996, 1997, 2003
- Duke University, 2001
- Deutsche Bundesbank, 2007
- Federal Reserve Bank, Washington D.C., 1979, 1999
- Federal Reserve Bank, New York, 1999
- Financial Intermediation Research Society, Alaska, 2008
- Harvard-MIT Mathematical Economics Seminar, 1973, 1985
- Harvard Business School, 1986, 1993, 1995
- Hebrew University, Jerusalem, 1984, 2005
- HEC, France, 1990, 1991, 1994
- INSEAD, France, 2003, 2005
- ITAM, Mexico, 1995, 1996
- Imperial College, London, 2007
- Institutional Investor Conference, 1982, 1985
- London Business School, 1984, 1989, 1994, 1998
- London School of Economics, 1978, 1984, 1994, 1998
- Louvain, Belgium (C.O.R.E.), 1970, 1978, 1984, 1989, 1994
- MIT Batterymarch Lecture 2003
- Moody's Conference on Credit Risk, NYU 2004, London 2005, Copenhagen 2007
- National Taiwan University, 2008
- New York University, 1996, 1998, 1999
- NHH, Bergen, Norway, 1978, 1984, 1994, 1998, 2007
- Oxford University (Nuffield College), 1978
- Paris, France (CEPREMAP/ENPC), 1970, 1976, 1984, 1988, 1994
- Princeton University, 2006
- Q-Group (Quantitative Research in Finance): Florida 1996, Barcelona 1997
- Stanford University, 1975, 1977, 1981, 1988, 1989, 1993, 1994, 1998, 2004
- Stockholm School of Economics, Sweden, 1994, 1998
- Tel-Aviv University, 2005
- Tokyo, Nikko Conference on New Financial Products, 1986, 1987
- University of Alaska, 1981
- University of British Columbia, 2002
- University of Chicago, 1972, 1979, 1980, 1981, 1982, 1989, 1993
- UCLA, 1983, 1985, 1988, 1992, 1996, 1999
- UC Santa Barbara, 1985, 1999
- University of Iowa (Conference on Decision Making Under Uncertainty, NSF-NBER), 1972

University of North Carolina, 2001
University of Paris 9 (Dauphine), 2007
University of Toulouse (GREMAQ), France, 1994, 1997, 2004
University of Warwick, England, 1988, 1994
University of Texas, 1999
University of Utah, 1994
University of Vienna, 2005
Venice, Italy (Conference on Mathematical Investment Theory), 1971
Venice, Italy (Conference of Default Risk), 2002, 2008
Waseda University, Tokyo, 2004 (3 lectures)
Washington University, St. Louis, 1994
Wharton School, University of Pennsylvania, 1973, 1986, 1991, 1997, 1999

Other:

AFFI (French Finance Association), Tunis, Tunisia, 1994;
Bordeaux 1995, Grenoble 1997, Aix-en-Provence 1999
American Finance/Economics Association Meetings: Numerous
Econometric Society Meetings in Cambridge, England, 1970;
New Orleans, 1971; Toronto, 1972; Atlantic City, 1976; Aix-en-
Provence, 1980; New York, 1980, 1983; Chicago, 1987;
San Francisco, 1996
European Finance Association Meetings: Istanbul 1997, Paris 1999
BARRA Conference, 1995, 1996, 1998, 1999

GRANTS

National Science Foundation

"Economic Analysis of Alternative Leasing Policies for Oil and Gas," SOC-75-05690 and SOC-76-21685, 4/75-3/77.

"Licensing and Minimum Quality Standards in Markets with Asymmetric Information," SOC-78-08280, 7/78-3/80.

Q-Group (Institute for Quantitative Research in Finance)

"Corporate Debt Values and Optimal Capital Structure," 1993-1995.

BSI Gamma Foundation (Switzerland)

"Optimal Portfolio Management With Transactions Costs and Taxes", 1998-1999.

RELEVANT WORK EXPERIENCE

2007-present	Independent Trustee, Barclays Global Investors Funds
1992-present	Consultant, Law and Economics Consulting Group (LECG)
2005	Consultant, W.R. Hambrecht & Co.
2001-2004	Consultant, U.S. Department of Justice
1998-2000	Consultant, Banca della Svizzera Italiana
1981-2000	Director and Founding Principal, Leland/O'Brien/Rubinstein Associates, Inc.
1989-1990	Consultant, California Public Utilities Commission
1987	Testimony to House Subcommittee for Telecommunications and Finance; Brady Commission, 1987.
1986-1995	Board of Directors, LOR/GB
1978-1982	Consultant, Department of Natural Resources, State of Alaska
1977-1979	Consultant, U. S. Department of Energy
1974	Consultant, Office of Energy R&D Policy, National Science Foundation
1968	Consultant, First National City Bank, New York
1967-1968	Consultant to Project in Computer Aided Education in Economics, Harvard University
1966-1967	Consultant, The RAND Corporation

PUBLICATIONS AND COMPLETED WORK

BOOK:

Structural Models in Corporate Finance, monograph based on Princeton Lectures in Finance, forthcoming, Princeton University Press.

ARTICLES:

1. "Savings and Uncertainty: The Precautionary Demand for Saving," Quarterly Journal of Economics 82, August 1968, 465-473. Reprinted in P. Diamond and M. Rothschild, Uncertainty in Economics, 1978.
2. "Dynamic Portfolio Theory," Journal of Finance 24, June 1969, 543-544. (Invited thesis summary.)
3. "Optimal Forward Exchange Positions," Journal of Political Economy 79, March/April 1971, 257-269.
4. "On the Existence of Optimal Policies Under Uncertainty," Journal of Economic Theory 4, February 1972, 35-44. Reprinted in W. Ziemba et. al. (eds.), Stochastic Optimization Models in Finance, Academic Press, 1976.
5. "The Dynamics of a Revenue Maximizing Firm," International Economic Review 13, June 1972, 376-385.
6. "Theory of the Firm Facing Uncertain Demand," American Economic Review 62, June 1972, 278-291.
7. "On Turnpike Portfolios," in G. Szego and K. Shell (eds.), Mathematical Methods in Investment and Finance, North-Holland, 1972.
8. "Optimal Growth in a Stochastic Environment," The Review of Economic Studies, January 1974.
9. "On Portfolio Selection with Transactions Costs," in D. McFadden and S. Wu (eds.), Proceedings of the Third NSF-NBER Conference on Decision Rules and Uncertainty, North-Holland, 1974.
10. "Production Theory and the Stock Market," Bell Journal of Economics and Management Science, Spring 1974.
11. "Regulation of Natural Monopolies and the Fair Rate of Return," Bell Journal of Economics and Management Science, Spring 1974.

12. "Theory of the Firm Facing Uncertain Demand: A Reply," American Economic Review, March 1975.
13. "Monopoly Pricing Structures with Imperfect Discrimination" (with Robert Meyer), Bell Journal of Economics, Autumn 1976.
14. "Information Asymmetries, Financial Structure, and Financial Intermediation" (with David Pyle), Journal of Finance, May 1976. Reprinted in S. Bhattacharya and G. Constantinides, Financial Markets and Incomplete Information, Rowman and Littlefield, Toronto, 1989. Reprinted in M. Brennan, ed., The Theory of Corporate Finance, Vol. 1, Elgar, 1996.
15. "Quality Choice and Competition," American Economic Review, March 1977.
16. "Optimal Risk Sharing and the Leasing of Natural Resources," Quarterly Journal of Economics, August 1978.
17. "Information, Managerial Choice, and Stockholder Unanimity," Review of Economic Studies, 1977. Reprinted in M. Brennan, ed., The Theory of Corporate Finance, Vol. 1, Elgar, 1996.
18. "Quacks, Lemons, and Licensing: A Theory of Minimum Quality Standards," Journal of Political Economy 87:6, 1979.
19. "Alternative Long-Run Goals and the Theory of the Firm," in P-T Liu (ed.), Dynamic Optimization and Mathematical Economics, New York: Plenum Publishing, 1980.
20. "Who Should Buy Portfolio Insurance?" Journal of Finance, May 1980.
21. "The Effectiveness of Public Utility Price Regulation" (with Robert Meyer), Review of Economics and Statistics, 1980.
23. "Minimum Quality Standards and Occupational Licensing in Markets with Asymmetric Information," in S. Rottenberg (ed.), Occupational Licensure and Regulation, American Enterprise Institute, 1980.
23. "Replicating Options with Positions in Stock and Cash" (with Mark Rubinstein), Financial Analysts Journal, July-August 1981. Reprinted in D. Luskin, ed., Dynamic Hedging: A Guide to Portfolio Insurance, Wiley, 1988; in Readings in Futures Markets published by the Chicago Board of Trade, Vol. VI, 1991; and reprinted in the 50th Anniversary Issue of the Financial Analysts Journal (January/February 1995), selected as one of the 22 best articles out of the 3200 published in the Journal during its 50-year history.
24. "Comments on Grossman's 'The Role of Private Disclosure in Conveying Information'," Journal of Law and Economics, 1981.

25. "An Economic Model of the Brain Drain" (with Viem Kwok), American Economic Review, March 1982.
26. "On Dynamic Investment Strategies" (with John Cox), Proceedings of the Seminar on the Analysis of Securities Prices, CRSP, November 1982.
27. "Prices and Qualities in Markets with Costly Information" (with Yuk-Shee Chan), Review of Economic Studies, 1983.
28. "Prices and Qualities in Costly Markets: A Search Model" (with Yuk-Shee Chan), Southern Economic Journal, 1984.
29. "Option Pricing and Replication with Transactions Costs," Journal of Finance, December 1985. Reprinted in G. Constantinides and A. Malliaris, eds., *The International Library of Critical Writings in Financial Economics—Option Markets*. E. Elgar, forthcoming.
30. "The Evolution of Portfolio Insurance" (with Mark Rubinstein), in D. Luskin, ed., Portfolio Insurance: A Guide to Dynamic Hedging, Wiley, 1988.
31. "Portfolio Insurance and October 19th," California Management Review, Summer 1988.
32. "Comments on the Market Crash: Six Months After" (with Mark Rubinstein), Journal of Economic Perspectives, Summer 1988.
33. "Portfolio Insurance," in F. J. Fabozzi and G. M. Kipnis, eds., The Handbook of Stock Index Futures and Options, Dow Jones-Irwin, 1989.
34. "LBOs and Taxes: No One to Blame But Ourselves?" California Management Review 29, Fall 1989.
35. "Market Liquidity, Hedging, and Crashes" (with Gerard Gennotte), American Economic Review, December 1990, 999-1021.
36. "Margin Requirements and Market Volatility: Lessons From the U.S. Experience" (with Gerard Gennotte), Recent Developments in International Banking and Finance, May 1992, 187-202.
37. "Insider Trading: Should It Be Prohibited?" Journal of Political Economy 100, December 1992, 859-887. Reprinted in M. Brennan, ed., The Theory of Corporate Finance, Vol. 1, Elgar, 1996.
38. "Portfolio Insurance," in The New Palgrave Dictionary of Money and Finance (eds. John Eatwell, Murray Milgate and Peter Newman), MacMillan Press, Volume 3, 1992, 154-156.
39. "On Equilibrium Price Processes" (with Hua He), Review of Financial Studies 6, December 1993, 593-617. Reprinted in G. Constantinides and A. Malliaris, eds., *The International*

Library of Critical Writings in Financial Economics—Continuous Time Finance. E. Elgar, forthcoming.

40. "Low Margins, Derivative Securities, and Volatility" (with Gerard Genotte), Review of Futures Markets 13, 1994, 709-742.
41. "Corporate Debt Value, Bond Covenants, and Optimal Capital Structure," Journal of Finance 49, September 1994, 1213-1252. Reprinted in M. Brennan, ed., The Theory of Corporate Finance, Vol. 1, Elgar, 1996. Reprinted in S. Schaefer, ed., *The Foundations of Continuous Time Finance*, E. Elgar, 2001. Recipient of first Stephen A. Ross Prize in Financial Economics (honors a paper in financial economics selected from all papers published over the prior 15 years in any finance or economics outlet).
42. "Cash Management for Index Tracking" (with Gregory Connor), Financial Analysts Journal, November/December 1995.
43. "Optimal Capital Structure, Endogenous Bankruptcy, and the Term Structure of Credit Spreads" (with Klaus Toft), Journal of Finance, July 1996.
44. "Options and Expectations," Journal of Portfolio Management, December 1996.
45. "Corporate Risk Management and Derivatives: Promises and Pitfalls," (in French), Risques: Les Cahiers de l'Assurance 30, Avril-Juin 1997.
46. "Agency Costs, Risk Management, and Capital Structure," Journal of Finance, August 1998, 1213-1243.
47. "Beyond Mean-Variance: Risk and Performance Measurement in a Nonsymmetrical World," Financial Analysts Journal, January-February 1999, 27-36. Reprinted in R. Koracyk, ed., *Asset Pricing and Portfolio Performance*, Risk Books, 1999. Received Graham and Dodd Award of Excellence, *AIMR*, 1999.
48. "The Structural Approach to Credit Risk," *Frontiers in Credit Risk Analysis*, AIMR Conference Proceedings, Association for Investment Management and Research, 1999.
49. *L'Assicurazione de Portafoglio: Elementi Teorici e Applicativi*, (monograph on Portfolio Insurance, in Italian), Il Mulino, Bologna, 1999.
50. "On Dynamic Investment Strategies" (with John Cox), *Journal of Economic Dynamics and Control*, 2000. (update of paper 26).
51. "An EBIT-Based Model of Dynamic Capital Structure" (with R. Goldstein and N. Ju), Journal of Business 74, October 2001, 483-512.

52. "Comparing Expected Default Frequencies from Structural Models of Debt", Journal of Investment Management, 2004. Reprinted in Fong, G., *The Credit Market Handbook*, Wiley: 2006
53. "Purely Financial Synergies and the Optimal Scope of the Firm: Implications for Mergers, Spinoffs, and Structured Finance," Journal of Finance 62, April 2007, 765-807.
54. "The Optimal Mix of Bank and Bond Market Debt: An Asset Pricing Approach" (with D. Hackbarth and C. Hennessy), Review of Financial Studies 20, September 2007, 1389-1428.

Miscellaneous Publications

55. "Comment on 'Hedging errors with Leland's option model in the presence of transactions costs,' Financial Research Letters 4, September 2007, 200-202.
56. Published interviews on financial markets in "Match de L'Argent" section of *Paris Match* magazine, 2002 and 1996.
57. Personal interview/profile, "The Man Who Made the Stock Market Gasp," lead article in *Asset Management* (Dow Jones publications), November/December 1997.
58. "Portfolio Insurance Five Years After," Risk Magazine, Vol. 5, 1992.
59. Personal profile/history, "The Ultimate Invention", Chapter 12 in Peter Bernstein, *Capital Ideas*, 1990.
60. "Black Monday: The Catastrophe Theory," Risk Magazine, Vol. 1, No. 10, October 1988.
61. "Review of John Cox and Mark Rubinstein, Options Markets," Journal of Economic Literature, December 1986.
62. "Review of Jan Mossin's Theory of Financial Markets," Journal of Finance, 1974.
63. "An Economic Analysis of Alternative Outer Continental Shelf Petroleum Leasing Policies" (with R. Norgaard and S. Pearson). Prepared for the Office of Energy R&D, National Science Foundation, September 1974.

Current Research

“Structural Models of Credit Risk and Corporate Finance” (manuscript in preparation, Princeton University Press)

“Structural Models and the Credit Crisis”, (Lecture notes)

“Options, Option Repricing, and Severance Packages in Managerial Compensation: Their Effects on Corporate Risk and Dividend Policies” (with N. Ju and L. Senbet), 2006.

“Optimal Portfolio Management in the Presence of Transactions Costs and Capital Gains Taxes”, Research Program in Finance Working Paper No. 290, IBER December 1999. Last Revision September, 2003.

“Optimal Portfolio Rules for Maximizing the Probability of Achieving a Target Return” (Lecture Notes, 2007)

UNIVERSITY AND DEPARTMENTAL SERVICE

Director, Berkeley Program in Finance, 1991 – 2001

Dean Witter Grant Program Head, 1991 - 2001

Elected Member, Policy and Planning (P²) Committee, 1992-1993, 1999-2000

Chair, MBA Committee, 2001-2002

Ethics Committee, 2002-2003

Endowed Chair Selection and Policy Committee, 1994 -

Numerous *Ad Hoc* Tenure Review Committees

Chair, Berkeley Program in Finance Seminar, 1986, 1994, 1996, 2003

Chair, Finance Group, 1983-5