

CURRICULUM VITAE

December 2019

NAME:

Frank MILNE

CITIZENSHIP:

Australian
Canadian (From June 2006).

CURRENT POSITION:

BMO Professor of Economics and Finance, June 2000 -
Economics Department
Queen's University
Kingston, Ontario
CANADA K7L 3N6
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Cross Appointment, Queen's School of Business.

EDUCATION:

Australian National University, Ph.D., 1975
Monash University, M.Ec., 1971
Monash University, B.Ec., (Hons.), 1969

PRIOR EXPERIENCE:

Sept. 1975 - Aug. 1977

Visiting Assistant Professor of
Finance and Economics
Graduate School of Management
University of Rochester
ROCHESTER, NEW YORK

Aug. 1977 - June 1991

Reader
Department of Economics
Faculty of Economics
Australian National University
CANBERRA ACT 2600

July 1991- June 2000

Professor
Economics Department
Queen's University
Kingston, Ontario
CANADA, K7L 3N6

Honory Degree:

Doctor of the La Trobe University (honoris causa) conferred on May 2, 2013.

LEAVE: January-June 2012: University of Auckland New Zealand;
Economics Dept., University of Exeter University, UK.

LEAVE: September 2008-June 2009: Special Advisor to the Bank of Canada.

LEAVE: Jan-June 2006:

Erskine Fellow, Economics Dept., University of Canterbury, New Zealand.

Dept of Economics, University of Exeter, UK.

I taught an intensive one week course in Risk Management at the Bank of England, London in the summer 2006.

LEAVE: Jan-June 2002:

Visited and taught PhD course in Continuous Time Finance, Finance Dept. University of Melbourne,

Visited Economics Dept, New York University;

Economics Dept. University of Birmingham;

Economics Dept, University of Heidelberg.

LEAVE:1997- 1998

Visited for short periods at:

Institute of Advanced Studies, Vienna;

Mathematics Dept, Trieste University;

Economics Dept, Birmingham University;

University of Chicago Business School;

Graduate School of Industrial Administration Carnegie Mellon University;

Graduate School of Management, University of Melbourne.

Visit: March 2003

University of Paris, Dauphine. I taught a PhD course in Asset Pricing Theory

Seminar at University of Paris, Sorbonne

MAJOR ADMINISTRATIVE POSITIONS (QUEEN'S)

Graduate Chairman - Queen's Economics Dept. 1993-1995

Alumni Fundraising for QED June 2003-

QED MA Placement Officer 2001-

Director: Graduate Diploma in Risk Policy and Regulation (2013-2018).

EDITORIAL BOARDS

Annals of Finance (Since March 2004)

Mathematical Finance (Since January 1991)

Council of the Bachelier Finance Society – coopted February 2001 until December 2001
Economic Record: 1989 – 2008.

Other Positions:

Research Fellow, C.D.Howe Institute, Toronto. (August 2009 -)
Committee member, Bank of Canada Fellowship Program, 2013 – 2018.

CONFERENCE ADMINISTRATION

Programme Committee member Econometric Society World Congress, Barcelona, August 1990
Programme Committee member, Western Finance Meetings, June 1991.
Programme Committee member Derivative Securities Symposium, Queen's University 1992 –6
John Deutsch Institute a conference, “Current Directions in Financial Regulation”, May 13-14, 2004 in Toronto (co-organiser with Edwin Neave.)
Co-organiser with Fatma Saryal: “Queen’s Conference on Behavioral Finance”, March, 2010
Member of the Scientific Committee for the Bachelier Conference, Toronto, June 2010.
Paper Review Committee (Finance) CEA meetings 2015, Toronto.

CONSULTING

I have acted as a consultant for politicians in Australia, and with various Federal government departments in Australia and Canada. I have consulted at the Bank of Canada and the Bank of England. I have acted as a consultant at various levels with private sector banks on risk management issues.

INVITED TALKS AND CONFERENCES (SELECTED):

Xing Jin and Frank Milne “Taxation and Transaction Costs in a General Equilibrium Asset Economy”, delivered as an invited paper at a special conference in Mathematical Finance honoring Professor Dilip Madan at the Norbert Wiener Center, Mathematics Dept, University of Maryland, September, 2006.
Invited Keynote speaker, Australasian Economic Theory Workshop, 15th-16th February 2007.
Australian National University, Canberra. I was invited as a founder of the Workshop and to celebrate the 25 annual conference.
Seminar at Quant Finance Workshop Boston University, April 2007, “The Role of Large Players in a Dynamic Currency Attack Game”.
C.D. Howe Conference on aspects of the Credit Crisis and Regulation. December 2007, 2008, 2009.
Canadian Economic Association meetings, Toronto 2009. Three presentations.
Quantitative Finance Programme, University of Waterloo, April 2010;
Invited Speaker, Field’s Institute, Univ of Toronto, Conference and MITAC Workshop. 2010.
Invited Speaker at Bachelier Finance Society 6th World Congress, Toronto, June 22-26, May 2010.
Invited Speaker at Mathematical Finance, Canadian Applied and Industrial Mathematics Society Conference, Toronto, June 2012.

University of Guelph, January 2013.
University of Ottawa, January 2014.
Dept of Finance, Tsinghua University, Beijing, April 2014.
Bank of England Seminar, July 2015
Financial Institutions, Regulation and Corporate Governance Conference, Melbourne
University, January 2017
Invited Discussant, 13th Defence and Security Economics Workshop, Ottawa, October 2018.
Co-Presenter at a workshop at the C.D.Howe Institute, Toronto, with Professor Charles Beach of our
paper, “Some Reflections on Ontario Post-Secondary Education Funding Policies”, QED WP. 1424.
C.D.Howe is publishing 3 shorter Memos as Extracts from the paper.
Invited Panelist, 14th Defence and Security Economics Workshop, Ottawa, October 2019.

Since the onset of the 2007-9 Crisis I have given many presentations at Canadian Universities and
Conferences on the Crisis – see below.

COURSES TAUGHT:

Current teaching:

Economics 423. Financial Institutions and Banking Crises

Economics 870 Graduate Asset Pricing Theory

Past teaching:

Microeconomic Theory (From Basic Principles to Graduates)

Second year PhD Workshop in MicroEconomics (topics change from year to year).

General Equilibrium Theory (Grad)

Applied Game Theory (Fourth Year U.Grad)

Financial Economic Theory (Grad)

Economics of Uncertainty and Information (Grad)

Financial Intermediation and Banking Theory (Grad) (Undergraduate)

Financial Risk Management (Grad)

Theory of Asset Pricing (Grad)

Financial Derivatives (Grad)

Corporate Finance (Grad)

Investments (U.Grad)

I taught the RPRD 801 and 802 courses and shared the administration of the RPRD 804 workshop with
Professor David Longworth. (2013-2018).

GRADUATE STUDENT SUPERVISION:

I have supervised and continue to supervise approximately 2-3 PhD students a year, either as a principal supervisor or as a committee member for the Economics Dept or School of Business.

Robert McKeown graduated June 2017. (Term appointment Economics Dept. Univ. of Toronto.)

Yue Qiu defended June 2017. (Xiamen University)

Current supervision: Suzyo Chlongo, Victoria Wang.

I supervise approx. 2-3 MA essays a year and the occasional 4th year thesis.

RESEARCH

Research Grants:

I had SSHRC research grants almost continuously since 1992, both as a primary investigator and as co-investigator. I have not applied for a SSHRC grant for the last 5 years, but used a grant from my chair.

MITACS Research Grant (2019): I am the Academic Supervisor for a MITACS research grant: *Financial and Economic Analysis for the Integration of Wind Generation into Electricity Grids*. I am working with Professor Glenn Jenkins and Pejman Bahramian. Grant: \$110,000.

Publications:

Frank Milne, "Keynes, Harrod and the Fixprice Method", *The Economic Record*, June 1972.

Frank Milne, "Corporate Investment and Finance Theory in Competitive Equilibrium", *The Economic Record*, December 1974.

Frank Milne, "Choice over Asset Economies: Default Risk and Corporate Leverage", *Journal of Financial Economics*, 2 (1975).

Frank Milne, "Default Risk in a General Equilibrium Asset Economy with Incomplete Markets", *International Economic Review*, October 1976.

Frank Milne, "The Adjustment Cost Problem with Jumps in the State Variable", in J.D. Pitchford and S.J. Turnovsky, (eds.), *Applications of Optimal Control in Economic Analysis*, North Holland, B.C., 1977.

Frank Milne, "Consumer Preferences, Linear Demand Functions and Aggregation in Competitive Asset Markets", *Review of Economic Studies*, Vol. XLVI (3) July 1979.

Frank Milne, "Borrowing, Short Sales, Consumer Default and the Creation of New Assets", *Journal of Financial and Quantitative Analysis*, June 1979.

Frank Milne, "Private Markets and Production Decisions", *Economics Letters*, 4, 1979, pp.201-209.

Frank Milne, "Short Selling, Default Risk, and the Existence of Equilibrium in a Securities Model", *International Economic Review*, June 1980.

Frank Milne and Clifford W. Smith, "Capital Asset Pricing with Proportional Transaction Costs", *Journal of Financial and Quantitative Analysis*, Vol XV, No.2, June 1980.

Frank Milne, "Induced Preferences and the Theory of the Consumer", *Journal of Economic Theory*, April 1981.

Frank Milne and Ron Weber, "Regulation and the Auditing Profession: The Metcalf Sub-Committee's Recommendations Re-examined", *Accounting and Business Research*, Summer 1981. Re-Printed in *The Accountants Digest*, Vol XLVII, No.2, December 1981.

Frank Milne, "The Firm's Objective Function as a Collective Choice Problem", *Public Choice*, 37, pp.473-486, 1981.

Frank Milne, Comment on "Price Elasticities for Private Medical Care Services in Australia", by J. Richardson and R. Harvey. (Health Economists' Group 1982 Conference, (ANU), in *Economics and Health 1982: The Proceedings of the Fourth Australian Conference of Health Economists*, Health Economics Research Unit, Technical Paper 7, 1983.

Frank Milne and H.M. Shefrin, "Welfare Losses Arising from Increased Public Information, and/or the Opening of New Securities Markets: Examples of the General Theory of the Second Best", in Bernt P. Stigum and Fred Wenstop (eds.), *Foundations of Utility and Risk Theory with Applications*, D. Reidel Publishing Company, Holland 1983.

Frank Milne and R. Weber, "On the Economics of Designing Generalized Software", *Communications of the Association for Computing Machinery*, August 1983.

Colin Cameron, Frank Milne, John Piggott and Pravin Trivedi, "The Demand for Health Insurance and Health Care in Australia - A Progress Report", *Economics and Health 1983: The Proceeding of the Fifth Australian Conference of Health Economists*, Health Economics Research Unit, Technical Paper 8, 1984.

Frank Milne and H.M. Shefrin, "Clarifying some Misconceptions about Stock-Market Economies", *Quarterly Journal of Economics*, August 1984.

Frank Milne, "The Induced Preference Approach to Arbitrage and Diversification Arguments in Finance", *European Economic Review*, 31, 1987, pp. 235-245.

Frank Milne and H.M. Shefrin, "Information and Securities: Pareto Dominance and the Second Best", *Journal of Economic Theory*, Vol. 43 No. 2, December 1987, pp. 314-328.

Frank Milne and H.M. Shefrin, "Ex-Post Efficiency and Ex-Post Welfare: Some Fundamental Considerations", *Economica*, February 1988, pp. 63-79.

Colin Cameron, Pravin Trivedi, Frank Milne and John Piggott, "A Microeconomic Model of the Demand for Health Care and Insurance in Australia", *Review of Economic Studies*, Vol. LV(1), No. 181, January 1988, pp. 85-106.

Frank Milne, "Arbitrage and Diversification in a General Equilibrium Asset Economy", *Econometrica*, Vol. 56 No. 4, July 1988, pp. 815-840.

Richard Cornes and Frank Milne, "A Simple Analysis of Mutually Disadvantageous Trade", *Economic Studies Quarterly*, Vol. 40 No. 2, June 1989, pp. 122-134.

Dilip Madan, Frank Milne and Hersh Shefrin, "The Multinomial Option Pricing Model and its Brownian and Poisson Limits", *The Review of Financial Studies*, December 1989, pp. 251-265.

Frank Milne, "Merit Goods: Why Benevolent Paternalists Require Theories of Consumer Choice", in G. Brennan and C. Walsh (eds.) *Individualism, Rationality and Public Policy*, C.R.F.F.R. Canberra 1990, pp. 199-205.

Stuart Turnbull and Frank Milne, "A Simple Approach to Interest Rate Option Pricing", *Review of Financial Studies*, December 1991, pp. 87-120.

Dilip Madan and Frank Milne, "Option Pricing with V.G. Martingale Components", *Mathematical Finance*, October 1991, pp. 39-56.

Chris Jones and Frank Milne, "Tax Arbitrage Existence of Equilibrium and Bounded Tax Rebates", *Mathematical Finance*, Vol. 2 No. 3, July 1992, pp. 189-196.

J. Eichberger, H. Haller and F. Milne, "Naive Bayesian Learning in 2 x 2 Matrix Games", *Journal of Economic Behaviour and Organization*, Vol. 22 No. 1, September 1993, pp. 69-90.

Dilip Madan and Frank Milne, "Contingent Claims Valued and Hedged by Pricing and Investing in a Basis." *Mathematical Finance*, Vol 4 No.3, July 1994, pp.223-246.

Frank Milne and E. Neave, "Dominance Relations on a Standardized Domain." *Management Science*, Vol 40, No.10, October 1994, pp. 1343-1352.

David Kelsey and Frank Milne, "The Arbitrage Pricing Theorem with Non-Expected Utility Preferences", *Journal of Economic Theory* Vol 65, No.2. April 1995. pp.557-574.

David Kelsey and Frank Milne, "The Existence of Equilibrium in Incomplete Markets and the Objective Function of the Firm", *Journal of Mathematical Economics*, 25, 1996, pp.229-245.

David Kelsey and Frank Milne, "Induced Preferences, Dynamic Consistency and Dutch Books" *Economica*, 64, 1997, pp.471-81.

David Kelsey and Frank Milne, "Induced Preferences, and Decision-Making Under Risk and Uncertainty," Nau, Gronn and Machina (eds.) *Economic and Environmental Risk and Uncertainty: New Models and Methods*, Kluwer, Dordrecht, The Netherlands, 1997 pp207-218.

Frank Milne, Commentary on Bolton and von Thadden, "Liquidity and Control: A Dynamic Theory of Corporate Ownership Structure" *Journal of Institutional and Theoretical Economics*, Vol 154, No.1, March, 1998.

Frank Milne and E. Neave, "Revising Canada's Financial Regulation", C.D. Howe Institute, Commentary No.101, Feb 1998. (Widely cited in the late 90's policy debate in Canada)

David Kelsey and Frank Milne, "Induced Preferences, Non-Additive Probabilities and Multiple Priors", *International Economic Review*. Vol 40, No.2, May 1999, pp.455- 77.

Frank Milne and Xing Jin, "The Existence of Equilibrium in a Financial Market With Transaction Costs", in *Quantitative Analysis in Financial Markets: Collected Papers of the New York University Mathematical Finance Seminar* ed. Marco Avellaneda, Jeffrey D. Phillips, World Scientific Pub Co., 1999.

Frank Milne and Klaus Ritzberger, "Strategic Pricing of Equity Issues", *Economic Theory*, 20, 2002, pp. 271-294.

Dilip Madan, Frank Milne and Robert Elliott, "Incomplete Diversification and Asset Pricing" in K. Sandmann and Philipp Schonbucher (eds.) **Advances in Finance and Statistics**, Springer, Berlin, 2002.

Frank Milne and David Kelsey, "Externalities, Monopoly and the Objective Function of the Firm", *Economic Theory*, 29, pp. 565-589, 2006

Xing Jin and Frank Milne "Taxation and Transaction Costs in a General Equilibrium Asset Economy", in Michael Fu, Robert Jarrow, Ju-Yi Yen and Robert Elliott (editors), *Advances in Mathematical Finance (Applied and Harmonic Analysis)* Birkhauser, Boston, April 2007. QED WP No. 1111

David Kelsey and Frank Milne, "Imperfect Competition and Corporate Governance," *Journal of Public Economic Theory*, 10 (6), 2008, pp. 1115-1141.

Frank Milne, "Anatomy of the Credit Crisis: The Role of Faulty Risk Management Systems," C.D. Howe Institute Commentary, No. 269, July 2008.

Frank Milne, "The Complexities of Financial Risk Management and Systemic Risks", *Bank of Canada Review*, Summer, 2009. pp.15-29.

David Kelsey and Frank Milne, "Takeovers and cooperatives: governance and stability in non-corporate firms", *Journal of Economics*, 99, 2010, 193-209.

Anand, A., Milne, F. and Purda, L., “Monitoring to Reduce Agency Costs: Examining the Behavior of Independent and Non-Independent Boards. *Seattle University Law Review*, 33, No.4, Summer 2010, pp.809-848.

Anand, A., Milne, F. and Purda, L. “Domestic and International Influences on Firm-Level Governance: Evidence from Canada”, *American Law and Economics Review*, Spring,14 (1), 2012.

Mei Li and Frank Milne, “The Role of Large Trader in a Dynamic Currency Attack Model”, *Journal of Financial Intermediation*, (23) 2014 pp. 590-620.

Mei Li, Frank Milne, Junfeng Qiu, “Uncertainty in an Interconnected Financial System, Contagion, and Market Freezes”,*Journal of Money, Credit and Banking*, Vol 46,No.6,September 2016, pp. 1135-1168.

Charles Beach and Frank Milne, “Challenges to Higher Education in Canada”, in William Coleman (ed.) *CAMPUS MELTDOWN: The Deepening Crisis in Australian Universities*, Connor Court Publishing, 2019.

Mei Li, Frank Milne and Junfeng Qiu “The LOLR Policy and its Signaling Effect in a Time of Crisis”, *Journal of Financial Services Research*, October, 2019.

BOOKS PUBLISHED:

Frank Milne, *Finance Theory and Asset Pricing*, Oxford University Press, 1995.
128 pages.

Frank Milne, *Finance Theory and Asset Pricing*, Oxford University Press, Second Edition, 2003.
239 pages.

Frank Milne and Edwin Neave (ed.) *Current Directions in Financial Regulation.*, John Deutsch Policy Forum Series: Queen’s University, 2005.

PAPERS FORTHCOMING:

PAPERS SUBMITTED, OR IN PROCESS OF SUBMISSION, TO JOURNALS:

Mei Li, Frank Milne, Junfeng Qiu, “Central Bank Screening, Moral Hazard and the Lender of Last Resort Policy” 2019, Under Revision, to be submitted to a banking field journal.

WORK IN PROGRESS:

John Crean and Frank Milne, *The Anatomy of Systemic Risk*, 2019, Research Monograph nearly completed. (over 300 pages)

John Crean and Frank Milne, *The Foundations of Systemic Risk* .WP 2019, final revision to be completed when *Anatomy* is completed. (This paper is a relatively short, more accessible version of *Anatomy*. It discusses the formal theory verbally and in summary without the mathematical modeling; and it provides a summary of the detailed empirical sections.)

Charles Beach and Frank Milne,

UNPUBLISHED PAPERS:

Dan Liang and Frank Milne, "The Trader's Dilemma: Trading Strategies and Endogenous Pricing in an Illiquid Market", December, 2005.

Frank Milne and E. Neave, "A General Equilibrium Financial Asset Economy with transaction costs and trading constraints", QED Working Paper Number 1082, 2003.

PUBLIC POLICY CONTRIBUTIONS:

Frank Milne, "Regulation of the Professions: An Economic Analysis", *Proceedings of the R.S. Gynther Conference*, University of Queensland, October 1979.

Frank Milne, "Arthritic Academia: The Problems of Government Universities", in *Occupational Regulation and the Public Interest*, eds. R.P.Albon and G.J. Lindsay, Centre of Independent Studies, Readings No. 4, Sydney 1984.

Ian Harper and Frank Milne, "In Pursuit of Excellence for Australian Universities", C.I.S. Policy Report, Vol II No. 3, August 1986.

John Logan, Frank Milne and R.R. Officer, "Competition Policy in Regulated Markets", in Michael James (ed.) *Regulating for Competition*, C.I.S., 1989, pp. 113-139.

Frank Milne, "Lessons from Australian Academic Experience", Conference Volume presented to Professor David Smith, retiring from Queen's University, 1996.

Frank Milne, "Wrap-up discussion" in *Information in Financial Asset Prices*, Conference Proceedings, Bank of Canada, Ottawa, May 1998, pp. 398-393.

Frank Milne, “The Australian Universities: A Study in Public Policy Failure”, QED Working Paper Number 1080, 2001.

Frank Milne, “The Impact of Innovation and Evolution on the Regulation of Capital Markets”, Expert Report for Supreme Court of Canada, May 26, 2010.

Frank Milne, “The Three Great Economic Crises”, Invited paper in Gary Johns (ed.) *Really Dangerous Ideas*, Connor Court Publishing, 2013.

Frank Milne, “Unintended Consequences: Advice for Politicians and Policy Analysts”, Invited paper in Philip Crisp (ed.) *So You Want to be a Leader?* Hybrid Publishers, Australia. 2015.

SELECTED PUBLIC POLICY PRESENTATIONS:

Frank Milne, “Risk Management Systems, Systemic Risk and the Credit Crisis”, C.D.Howe Institute in Toronto December 14, 2007. My two discussants were The Senior Deputy Governor of the Bank of Canada, and the Head of Research at the Canadian Office of Superintendent of Financial Institutions

Since the onset of the Financial Crisis I have given many presentations related to the Crisis. For example, I was a discussant and presenter in three sessions of the Canadian Economic Association meetings Toronto, 2009; Wilfred Laurier University, May 2009, and Carlton University, January, 2009; Field’s Institute, Univ of Toronto, November 2009; C.D.Howe Institute September and December 2009. CFA Ottawa meeting and University of Ottawa January 2010.

In 2010 I was contracted by the Dept. of Justice, Canada as an expert witness for the current case before the Supreme Court of Canada, concerning the proposed national securities regulation. In the Dept of Justice factum, my paper, “The Impact of Innovation and Evolution on the Regulation of Capital Markets”, Expert Report for Supreme Court of Canada, May 26, 2010, was cited extensively.

Monday Morning Forum, Queen’s University, “The Economic and Financial Crisis: Solutions?” January 2012.

Public Lecture: “Economic Crises: The Impact on Australia and Canada”, La Trobe University, Australia, March 2012.

Saturday Club, Queen’s University “What can we learn from Historical Economic and Financial Crises?” March 2017.

Other Talks:

Invited paper: “Comparing Australia and Canada: Strategic Risks and Opportunities in the Age of Austerity”, Invited Paper prepared for Conference *International Security in an Age of Austerity*, Queen’s University, June, 2012.

Bank of England, Presented Crean-Milne research to members of the Stress Testing committee, July 2015.

Bank of England, Discussion with members of the Stress Testing methodology committee, July 2015.

Recent Conferences attended by Invitation:

CDIC Conference “Are we ready for the next financial crisis?” April 2017.

Bank of Canada Learning Exchange May 2017.

CDIC Conference, “Deposit Insurance in the Digital Age”, May 2019.

BOOK REVIEWS

J. Tirole, *Economics for the Common Good*, Princeton, 2017. *Quantitative Finance*. June 2018.

S. LeRoy and J. Werner, *Principles of Financial Economics*, *Journal of Economic Literature*, March 2003, Vol XL1, No.1.

V. Bohm, *Disequilibrium and Macroeconomics*, *Economic Record*, December, 1992.

“Review of Six Finance Theory Books”, *Economic Record*, December 1990.

G. Debreu, *Mathematical Economics: Twenty Papers*, C.U.P.: *Economic Record*, September 1988, pp. 220-1.

REFEREEING (SELECTED):

American Economic Review

Econometrica

Review of Economic Studies

Review of Financial Studies

Annals of Finance

Journal of Finance

Journal of Economic Theory

Economic Journal

International Economic Review

Management Science

Canadian Journal of Economics
Mathematical Finance
Journal of Financial and Quantitative Analysis
Journal of Money, Credit and Banking
Economic Record
European Financial Review
Journal of the European Economic Association
Annals of Finance

REFEREES

Professor Jurgen Eichberger
Wirtschaftstheorie I
Alfred-Weber-Institut für Wirtschaftswissenschaften
Grabengasse 14
69117 Heidelberg
Germany

Professor Stephen J. Brown,
New York University
Stern School of Business
New York
U.S.A.

Professor Prasanna Gai
Department of Economics
Faculty of Economics and Business
University of Auckland
Auckland
New Zealand