UNIVERSITY OF LONDON
External System

Reading list 2009–10
43 Mathematics of finance and valuation

The current edition of the subject guide is the 2007 edition. This reading list was last updated in June 2009. Any queries about this reading list should be directed to externalstudy@lse.ac.uk.

Recommended reading

These are listed **in order of usefulness** for the unit, rather than alphabetically.

Shreve, S. *Stochastic Calculus for Finance I, The Binomial asset pricing model.* (Springer, 2004) [ISBN 9780387249681].

Shreve, S. *Stochastic Calculus for Finance II, Continuous-time models.* (Springer, 2004) [ISBN 9780387401010].

Pliska, S.R. *Introduction to Mathematical Finance - Discrete Time Models.* (Blackwell, 1998) [ISBN 9781557869456].

Hull, J.C. *Options, Futures and other Derivative Securities.* (Prentice Hall, 2005) sixth edition [ISBN 9780131499089]. See also the URL: http://www.rotman.utoronto.ca/~hull/ [Last checked 4 June 2009].

Cvitanić, J. and F. Zapatero *Introduction to the Economics and Mathematics of Financial Markets.* (MIT, 2004) [ISBN 9780262033206, 9780262532594 (solutions manual)].

Luenberger, D. *Investment Science.* (Oxford University Press, 1997) [ISBN 9780195108095].

Roman, S. *Introduction to Mathematics of Finance. Undergraduate Texts in Mathematics*. (Springer, 2004) [ISBN 9780387213644].

Baxter, M. and A. Rennie *Financial calculus.* (Cambridge University Press: Cambridge, 1996) [ISBN 9780521552899].

Etheridge, A. *A Course in Financial Calculus*. (Cambridge University Press: Cambridge, 2002) [ISBN 9780521890779].

Ostaszewski, A. *Advanced Mathematical Methods.* (Cambridge University Press: Cambridge, UK, 1991) [ISBN 9780521289641].

Binmore, K. and J. Davies *Calculus: Concepts and Methods.* (Cambridge University Press: Cambridge, UK, 2001) [ISBN 9780521775410].

Intermediate reading

Bingham, N.H. and R. Kiesel *Risk-Neutral Valuation: Pricing and Hedging of Financial Derivatives.* (Springer, 1998) second edition, 2004 [ISBN 9781852334581].

Campbell, J.Y., A.W. Lo and A.C. MacKinlay *The econometrics of .nancial markets.* (Princeton University Press) [ISBN 9780691043012].

Janson, S. *Gaussian Hilbert Spaces. Cambridge Tracts in Mathematics 129* (Cambridge University Press, 1997) [ISBN 9780521561280] in connection with the geometric view of probability sketched in Chapter 2.

Williams, D. *Probability with martingales.* (Cambridge, 1991) [ISBN 9780521406055].

Øksendal, B. *Stochastic differential equations.* (Springer, 1998) [ISBN 9783540047582].

Wilmott, P., S. Howison and J. Dewynne *Mathematics of Financial Derivatives.* (Cambridge University Press: Cambridge, 1995) [ISBN 9780521497893].

Whittaker, E.T. and G.N. Watson *A course of modern analysis.* (Cambridge University Press, 1984) [ISBN 9780521588072].

Durrett, R. *Stochastic Calculus - A Practical Introduction.* (CRC Press, 1996) [ISBN 9780849380716].

Evans, L.C. *Partial Differential Equations.* (American Mathematical Society, Providence, 1998) [ISBN 9780821807729].

Schuss, Z.*Theory and Applications of Stochastic Differential Equations.* (J. Wiley, 1980) [ISBN 9780471043942].
Merton, R.C. *Continuous-time Finance.* (Blackwell, 1996) [ISBN 9780631185086].
Samuelson,P. 'Proof that properly anticipated prices fluctuate randomly', *Industrial Management Review*, 6(2) 1965, pp.41–49.

Further reading (historical, anecdotal, or popular texts)

Bernstein, P. *Against the Odds.* (J. Wiley, 1998) [ISBN 9780471295631].
Bernstein, P. *Capital Ideas - The Improbable origins of modern Wall Street.* (J. Wiley, 1998) [ISBN 9780029030127].
Davis, M. and A. Etheridge *Louis Bachelier's Theory of Speculation: the origins of modern finance.* Translated and with commentary (Princeton, 2006) [ISBN 9780691117522].
Dunbar, N. *Inventing Money: The Story of Long-Term Capital Management and the Legends Behind It.* (J. Wiley, 2001) [ISBN 9780471498117].
Kay, J. *Foundations of Corporate Success.* (Oxford University Press, 1995) [ISBN 9780198289883].
Kay, J. *The truth about markets.* (Allen Lane, Penguin Press 2003) [ISBN 9780140296723].
Lewis, M. *Liar's Poker.* (Coronet Books, 1989) [ISBN 9780340767009].
Lowenstein, R. *When Genius Failed: The Rise and Fall of Long-Term Capital Management.* (Random House, 2000) [ISBN 9780375758256].
Smithers, A. *Valuing Wall Street: Protecting Wealth in Turbulent Times.* (McGraw-Hill, 2002) [ISBN 9780071354615 (hbk) 9780071387835 (pbk)].
Bachelier, L. *Louis Bachelier's Theory of Speculation: the origin of modern finance.* Translated and with commentary by Davis, M and A. Etheridge (Princeton: Princeton University Press, 2006) [ISBN 9780691117522].

Making use of the Online library

- To help you read extensively, all External students have free access to the University of London Online library where you will find the full text or an abstract for many of the journal articles listed for this unit.
- The Online library is accessed via the Student Portal at http://my.londonexternal.ac.uk/
- For most journals, the username and password you need is the same as the one which you have been sent to use for logging in to the Student Portal.