Claus Munk (latest update: July 2025)

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E-mail: cm.fi@cbs.dk
Born 22 July 1969. Danish National.
Married to Lene Munk Larsen.
Father of Mathias (1994) and Lukas (2004).

Positions and education

2012-	Professor, Dept. of Finance, Copenhagen Business School, Denmark
2018-	Research fellow, the Danish Finance Institute
2015-	Affiliated with the Pension Research Centre, PeRCent.
2009-2012	Professor, Dept. of Economics & Dept. of Mathematics, Aarhus University, Denmark
2004-2008	Professor, Dept. of Business and Economics, University of Southern Denmark
1999-2004	Associate professor, Dept. of Accounting and Finance, University of Southern Denmark
1996-1999	Assistant professor, Dept. of Management, University of Southern Denmark
1997	PhD in economics, Odense University, Denmark. Thesis: Optimal Consumption/Portfolio Policies and Contingent Claims Pricing and Hedging in Incomplete Markets
1993	MSc in Mathematical Economics (cand.scient.oecon.), Odense University, Denmark

Textbooks

- Fixed Income Modelling. 576 pages. *Oxford University Press*, June 2011.
- Financial Asset Pricing Theory. 585 pages. *Oxford University Press*, April 2013.

Journal articles

28. How do Interest-only Mortgages Affect Consumption and Saving over the Life Cycle? **Management Science**, 70: 1970-1991 (2024). With Linda Sandris Larsen, Rikke Sejer Nielsen, and Jesper Rangvid.
27. The Design and Welfare Implications of Mandatory Pension Plans. **Journal of Financial and Quantitative Analysis**, 58: 3420-3449 (2023). With Linda Sandris Larsen.
26. Bequest Motives in Consumption-Portfolio Problems with Recursive Utility. **Journal of Banking and Finance**, 138: article no. 106428 (2022). With Holger Kraft and Farina Weiss.
25. Solving Life Cycle Problems with Biometric Risk by Artificial Insurance Markets. **Scandinavian Actuarial Journal**, 4: 307-327 (2022). With Christoph Hambel and Holger Kraft.
24. A Mean-Variance Benchmark for Household Portfolios over the Life Cycle. **Journal of Banking and Finance**, 116: article no. 105833 (2020).
23. Hedging Recessions. **Journal of Economic Dynamics and Control**, 107: article no. 103715 (2019). With Nicole Branger and Linda Sandris Larsen.
22. Predictors and Portfolios over the Life Cycle. **Journal of Banking and Finance**, 100: 1-27 (2019). With Holger Kraft and Farina Weiss.
21. Housing Habits and Their Implications for Life-Cycle Consumption and Investment. **Review of Finance**, 22(5): 1737-1762 (2018). With Holger Kraft and Sebastian Wagner.
20. Consumption Habits and Humps. **Economic Theory**, 64(2): 305-330 (2017). With Holger Kraft, Frank Seifried, and Sebastian Wagner.
19. Options in Compensation: Promises and Pitfalls. **Journal of Accounting Research** 52(3): 703-732 (2014). With Christian Riis Flor and Hans Frimor.
18. Portfolio Management with Stochastic Interest Rates and Inflation Ambiguity. **Annals of Finance** 10(3): 419-455 (2014). With Alexey Rubtsov.
17. Asset Allocation over the Life Cycle: How Much Do Taxes Matter? **Journal of Economic Dynamics and Control** 37(11): 2217-2240 (2013). With Marcel Fischer and Holger Kraft.

16. Solving Constrained Consumption-Investment Problems by Simulation of Artificial Market Strategies, **Management Science** 59(2): 485-503 (2013). With Björn Bick and Holger Kraft.
15. Robust Portfolio Choice with Ambiguity and Learning about Return Predictability, **Journal of Banking and Finance** 37(5): 1397-1411 (2013). With Nicole Branger and Linda Sandris Larsen.
14. Equilibrium in Securities Markets with Heterogeneous Investors and Unspanned Income Risk, **Journal of Economic Theory** 147(3): 1035-1063 (2012). With Peter Ove Christensen and Kasper Larsen.
13. The Costs of Suboptimal Dynamic Asset Allocation: General Results and Applications to Interest Rate Risk, Stock Volatility Risk, and Growth/Value Tilts**, Journal of Economic Dynamics and Control** 36(2): 266-293 (2012). With Linda Sandris Larsen.
12. Optimal Consumption, Housing, and Investments over the Life Cycle, **Management Science** 57(6): 1025-1041 (2011). With Holger Kraft.
11. Dynamic Asset Allocation with Stochastic Income and Interest Rates, **Journal of Financial Economics** 96(3): 433-462 (2010). With Carsten Sørensen.
10. Portfolio and Consumption Choice with Stochastic Investment Opportunities and Habit Formation in Preferences, **Journal of Economic Dynamics and Control** 32(11): 3560-3589 (2008).
9. Bond Durations: Corporates vs. Treasuries, **Journal of Banking and Finance** 31(12): 3720-3741 (2007). With Holger Kraft.
8. Optimal Consumption and Investment Strategies with Stochastic Interest Rates, **Journal of Banking and Finance** 28(8): 1987-2013 (2004). With Carsten Sørensen.
7. Dynamic Asset Allocation under Mean-Reverting Returns, Stochastic Interest Rates and Inflation Uncertainty: Are Popular Recommendations Consistent with Rational Behavior? **International Review of Economics and Finance** 13(2): 141-166 (2004). With Carsten Sørensen and Tina Nygaard Vinther.
6. Optimal Consumption and Investment Strategies with a Perishable and an Indivisible Durable Consumption Good, **Journal of Economic Dynamics and Control** 28(2): 209-253 (2003). With Anders Damgaard and Brian Fuglsbjerg.
5. The Markov Chain Approximation Approach for Numerical Solution of Stochastic Control Problems: Experiences from Merton's Problem, **Applied Mathematics and Computation** 136(1): 47-77 (2003).
4. Price Bounds on Bond Options, Swaptions, Caps, and Floors Assuming Only Non-negative Interest Rates, **International Review of Economics and Finance** 11(4): 333-345 (2002).
3. Optimal Consumption/Investment Policies with Undiversifiable Income Risk and Liquidity Constraints, **Journal of Economic Dynamics and Control** 24(9): 1315-1343 (2000).
2. Stochastic Duration and Fast Coupon Bond Option Pricing in Multi-Factor Models, **Review of Derivatives Research** 3(2): 157-181 (1999).
1. The Valuation of Contingent Claims under Portfolio Constraints: Reservation Buying and Selling Prices, **European Finance Review / Review of Finance** 3(3): 347-388 (1999).

Current working papers

- Portfolio choice with ETFs (2025). With Tom Ernst and Holger Kraft.
- Optimal retirement saving and dissaving (2025).
- Asset pricing with clustered, controllable disasters (2024). With Carina Fleischer, Holger Kraft, and Farina Weiss.

Other publications

- (IN DANISH, Op-ed in Danish business newspaper) Pensioner designet til at holde – hele livet. Kronik i Dagbladet Børsen, November 17, 2022. With Søren Fiig Jarner and Mogens Steffensen. Reprinted in the booklet “Det danske pensionssystem: Sejre og udfordringer. En kronikserie.”
- Pension Product Design and Relations to the Danish Market**.** With Søren Fiig Jarner and Mogens Steffensen. Chapter 4 in "The Danish Pension System: Design, Performance and Challenges", edited by Torben M. Andersen, Svend Erik Hougaard Jensen, and Jesper Rangvid. Oxford University Press (2022).

- (IN DANISH, peer-reviewed article in Danish journal) Nye samfundsforudsætninger: Baggrund, niveau og konsekvenser for pensionsprognoser, *Finans/invest*, No. 6, pp. 6-14 (2018). With Jesper Rangvid.
- Optimal Real Consumption and Investment Strategies in Dynamic Stochastic Economies. In *Stochastic Economic Dynamics*, eds. B.S. Jensen and T. Palokangas, CBS Press (2007). With Carsten Sørensen.
- (IN DANISH) Asset pricing modeller, Chapter 2 in *Udviklingslinier i finansiering* edited by Michael Christensen, Jurist-og Økonomforbundets Forlag (2005).
- (IN DANISH, peer-reviewed article in Danish journal) Værdiansættelse af optioner i aflønningskontrakter, *Finans/Invest,* No. 4, pp. 20-30 (2003). With Christian Riis Flor.
- (IN DANISH, peer-reviewed article in Danish journal) Skal investorer med lang investeringshorisont have større aktieandel?, *Finans/invest*, No. 7, pp. 10-17 (2001). With Carsten Sørensen.

Lecture notes

- Financial Markets and Investments (2025). 692 pages.
- Recursive utility in financial economics (2021). 126 pages.
- Dynamic Asset Allocation (2017). 305 pages.
- (IN DANISH) Indledende obligations- og rentestrukturanalyse (2012). 130 pages. Translated title: Introduction to the Analysis of Bonds and the Term Structure of Interest Rates. With Christian Riis Flor and Linda Sandris Larsen.

Selected paper presentations and talks

Conferences, symposia, workshops (* by co-author)

- Netspar Pension Workshops 2024, 2016 (keynote speaker), 2013
- PeRCent conferences and workshops, Copenhagen 2025, 2023, 2019, 2018*, 2016
- LTI Asset Pricing Conference, Turin, 2022
- Midwest Finance Association meeting 2020*, 2019
- Financial Management Association meeting 2020
- World Finance Conference 2017, 2014*, 2013*,
- Asset Allocation Workshop, Bolzano, 2017
- SGF conference, Zurich, 2017
- CEPR European Conference on Household Finance, Paris, 2016*
- WU Gutmann Center Symposium on Retirement and Asset Management, Vienna, 2015*
- Stochastic Models and Control, workshop, Kaiserslautern, 2015
- Arne Ryde Workshop in Financial Economics, Lund, Sweden, 2015, 2014
- Asset pricing workshop, University of York, England, 2014
- 11th Workshop on Pension, Insurance and Saving, Paris, 2013
- EFMA (European Financial Management Association) Meetings: 2012*, 2002*, 2001*, 1998
- University of Minnesota Accounting Theory Conference 2011*
- European Finance Association Meetings: 2010, 2008, 2006, 2006*, 2003*, 2001*, 1999, 1998, 1997
- Bachelier Finance Society World Congress: 2010, 2010*, 2000
- Eastern Finance Association 2009, 2009*
- Workshop on Dynamic Asset Allocation, Aarhus, Denmark, 2009.
- Symposium in honour of Michael Brennan and Eduardo Schwartz, Copenhagen Business School, 2008
- Advances in Portfolio Decision Making, University of Notre Dame, 2007
- 10th Symposium on Finance, Banking, and Insurance, University of Karlsruhe, 2005
- 6th Columbia-JAFEE International Conference, Tokyo 2003
- Discussant at numerous occasions, e.g. AFA2019, several European Finance Association meetings.

Universities

- University of Southern Denmark 2024, Lund 2020, City University of Hong Kong 2019, Zürich 2013, Goethe Frankfurt 2004, 2010, Helsinki 2005, 2010, 2013, 2016, 2019, Aarhus 2006, Kaiserslautern 2005, Tilburg 2005, Mainz 2001.

Mainly for practitioners

- Danish Society of Actuaries 2019, Jyske Bank 2019, Danmarks Nationalbank 2018*, Danish Society for Financial Analysts 2006, Nordea Markets 2004, the Central Bank of Norway 2003, Japanese Government Pension Investment Fund 2003.

Grants and awards

- Member of the pension research center PeRCent that receives funding from the Danish pension sector and the Copenhagen Business School.
- Financial support from the Danish Research Council for Social Sciences for the organization of the Symposium on Stochastic Dynamic Models in Finance and Economics, 2008.
- Leader of the research project "Dynamic Portfolio Management" funded by the Danish Social Science Research Council, 2004-2008.
- Member of the Danish Centre for Accounting and Finance (D-CAF) funded by the Danish Social Science Research Council, Nykredit, and The Institute of State Authorized Public Accountants in Denmark.
- Financial support from INQUIRE Europe for research project "Dynamic Asset Allocation with Stochastic Income and Interest Rates" carried out with Carsten Sørensen, Copenhagen Business School.

Editorial work

- **Associate editor**, Journal of Economic Dynamics and Control, 2010-
- **Referee** for journals:

  Annals of Finance
  Applied Mathematics and Computation
  Applied Mathematics and Optimization
  Appl. Stoch. Models in Business and Industry
  ASTIN Bulletin
  Econometrica
  Economics Bulletin
  European Economic Review
  European Journal of Finance
  European Journal of Operational Research
  Insurance: Mathematics and Economics
  Int'l Journal of Theoretical and Applied Finance
  Int'l Review of Economics and Finance
  Journal of Applied Probability
  Journal of Banking and Finance
  Journal of Economic Behavior & Organization
  Journal of Economic Dynamics and Control
  Journal of Economic Theory
  Journal of Finance
  Journal of Financial and Quantitative Analysis
  Journal of Financial Economics
  Journal of Futures Markets
  Journal of Macroeconomics
  Journal of Mathematical Economics
  Macroeconomic Dynamics
  Management Science
  Mathematical Finance
  Mathematics and Financial Economics
  PNAS Proceed. of Natural Academy of Sciences
  Quantitative Finance
  Review of Asset Pricing Studies
  Review of Finance
  Review of Financial Economics
  Review of Financial Studies
  Scandinavian Actuarial Journal
  Stochastic Analysis and Applications
  Studies in Nonlinear Dynamics & Econometrics
- **Reviewer** of textbook proposals for McGraw-Hill, Cambridge University Press, Oxford University Press, and World Scientific.
- **Reviewer** of grant application for Deutsche Forschungsgemeinschaft

Other professional activities

- **Study director (line coordinator)** of MSc Finance and Investments, Copenhagen Business School, 2014-
- Member of **PhD committees** at Tilburg University, Copenhagen Business School, Aarhus University, University of Copenhagen, Aarhus School of Business, Lund University, University of Southern Denmark.
- Member of AFA/AEA **recruiting committee**, Dept of Finance at Copenhagen Business School (since 2014), Dept of Economics at Aarhus University (2011, 2012).
- Member of the **program committee** for the European Finance Association Meetings 2002, 2003, 2009, 2012, and since 2015; the European Financial Management Association Meeting 2010 and since 2023; and the Conference of the Swiss Society for Financial Market Research 2011, 2012, and since 2014.
- Member of the **board** of the Danish Doctoral School in Finance (2003-2010) and the Danish Center for Accounting and Finance (2008-2011).
- Member of Assistant, Associate, and Full Professorship **evaluation committees** at Aarhus University, the University of Copenhagen, the Copenhagen Business School, the Aarhus School of Business, and the University of Southern Denmark.
- **Organizer/co-organizer** of several two-day research workshops in Denmark, 2004-2009.

Supervision of PhD students

At the Copenhagen Business School:

- **Maximillian Fuchs**, from October 2020

At Aarhus University:

- **Martin Schultz-Nielsen**: Optimal corporate investments and capital structure, completed March 2014, now McKinsey and Company, Copenhagen, Denmark

At the University of Southern Denmark:

- **Martin Skovgaard Hansen**: Life and Pension Insurance – Dynamics and Control, completed Nov 2002, now CTO in Proveo (asset management), Denmark
- **Kasper Larsen**: Math finance, completed Sep 2004, now Professor at Rutgers University (math)
- **Simon Lysbjerg Hansen**: Asset pricing, consumption/portfolio problems, completed Oct 2006, now at Ørsted, Copenhagen
- **Linda Sandris Larsen**: Asset allocation, completed July 2009, now Associate professor at Copenhagen Business School

Teaching experience

PhD

Fall 2005-2025:	**Theoretical Asset Pricing**, Graduate School of Finance, Helsinki, Finland (20 hours)
Fall 2016-2020:	**Advanced Asset Pricing**, Copenhagen Business School (44 hours)
Spring 2009-2012:	**Advanced Financial Economics,** Aarhus University (44 hours + projects)
August 2010-2012:	**Dynamic Asset Allocation,** Aarhus Univ. and Danish Doctoral School of Finance (20 h)
Fall 2002-2008:	**Asset Pricing Theory**, Danish Doctoral School of Finance (24-60 hours)
May 2004:	**Dynamic Asset Allocation**, Graduate School of Economics, Bonn, Germany (15 hours)
August 2003:	**Dynamic Asset Pricing, Optimal Investments, and Derivatives** Center for Financial Studies, Frankfurt, Germany (15 hours)
Spring 2000-2003:	**Continuous-time Finance**, Danish Doctoral School of Finance (12-18 hours)

Graduate/MSc

Fall 2014-2025:	**Investments**, Copenhagen Business School (33-36 hours of lectures)
Fall 2023-2025:	**Financial Market Theory**, Copenhagen Business School (33 hours of lectures)
Fall 2012, 2013, 2022:	**Financial Markets and Instruments**, Copenhagen Business School (30-33 hours of lectures, in 2012 also 3x18 hours of exercises)

Fall 2012-2014, 2021:	**Capital Market Theory**, Copenhagen Business School (30-33 hours of lectures)
Spring 2012:	**Advanced Derivatives**, Aarhus University (12 hours)
Fall 2010, 2011:	**Intermediate Finance Theory,** Aarhus University (48 hours + projects)
Fall 2009:	**Dynamic Asset Allocation**, Aarhus University (48 hours + projects)
Spring 2008:	**Investments**, University of Southern Denmark (22 hours + projects)
Fall 2007:	**Derivatives and Risk Management**, Univ. of Southern Denmark (45 hours + projects)
Fall 2005, Spring 2008:	**Asset Pricing**, University of Southern Denmark (22-45 hours + projects)
Spring 2002-2005:	**Asset Allocation and Derivatives**, Univ. of Southern Denmark (45 hours + projects)
Spring 1997-2001:	**Advanced Finance 2**, University of Southern Denmark (60 hours + projects; in Danish)
Fall 1999, 2000:	**Advanced Finance 1**, University of Southern Denmark (60 hours + projects; in Danish)

Undergraduate/BSc

Spring 2006, 2007:	**Business Economics 3**, University of Southern Denmark (15-33 hours; in Danish)
Fall 1996-1998:	**Finance and Investments**, University of Southern Denmark (60 hours; in Danish)