April 2024

**Curriculum Vitae**
**Niels Haldrup**


**Personal information:**

Date and place of birth: March 22, 1963, Aarhus, Denmark
Marital Status: Married (Prof. Charlotte Christiansen), 2 children (Marius 2003, Alfred 2006)

**Work Address:**

Department of Economics and Business Economics, Aarhus BSS, Aarhus University, Fuglesangs Allé 4, DK-8210 Aarhus V, Denmark. +45 5150 4526 (phone), nhaldrup@econ.au.dk


**Education:**

PhD (Econ), 1993, University of Aarhus
MA (Econ), 1988, University of Warwick, UK

**Academic Positions:**

Director, *Center for Research in Energy: Economics and Markets (CoRE),* funded by InCommodities, 2024-
Head of Department, Department of Economics and Business Economics, Aarhus University, 2018 –2024
Acting Head of Department, Department of Economics and Business Economics, Aarhus University, 2017- 2018.
Section Head (Econometrics), Department of Economics and Business Economics, Aarhus University 2016-2017
Director and Research Fellow, Danmarks Grundforskningsfond/Danish National Research Foundation's *Center for Research in Econometric Analysis of TimE Series*, *(CREATES)*, 2007-2017
Professor of Economics, Department of Economics, Aarhus University, 1999-
Associate Professor, Department of Economics, Aarhus University, 1995-1999
Jean Monnet Fellow, Department of Economics, EUI, Florence, Italy, 1992-1993
Assistant Professor, Department of Economics, Aarhus University, 1991-1995
Research Scholar (kandidatstipendiat, doctoral student), Department of Economics, Aarhus University, 1988-1991

**Main Visits Abroad:**

Visiting Professor, School of Economics and Finance, Queensland University of Technology, November-December 2016
Visiting Professor, Department of Economics, University of California, San Diego. February-June, 2000, September-December, 2014
Visiting Professor, Tinbergen Institute and Erasmus University, Rotterdam, The Netherlands, October 1998
Visiting Fellow, European University Institute, Florence, Italy, January-August, 1997
Postdoctoral Visiting Scholar, Department of Economics, University of California, San Diego, September-December, 1995

**Editorial Positions:**

Associate Editor, *Macroeconomic Dynamics*, 2012-
Associate Editor, *Journal of Time Series Econometrics*, 2008-
Associate Editor, *Journal of Applied Econometrics*, 2004-2020
Associate Editor, *Scandinavian Journal of Economics*, 2006-2014

Regional Editor, *Palgrave Texts in Econometrics; Palgrave Advanced Texts in Econometrics*, 2011-
Editor (jointly with Pentti Saikkonen, Mika Meitz) *Essays on Non-linear Time Series Econometrics*, Oxford University Press, 2013
Guest Editor (jointly with David F. Hendry, Herman K. van Dijk) *Oxford Bulletin of Economics & Statistics* 65, 2003: Special issue: Model Selection and Evaluation in Econometrics
Guest Editor (jointly with Tim Bollerslev, Bent Jesper Christensen, Asger Lunde*), Journal of Time Series Econometrics,* 2011: Special issue: Periodicity, Non-stationarity, and Forecasting of Economic and Financial Time Series

**Boards and external activities:**

Board member, Delegate for Denmark, High Council, European University Institute, Firenze, Italy, 2023-
Board member, *Tradium*, Randers, 2021-
Board member, *Jubilæumsfonden and BSS fonden*, 2018 – 2022
Co-director, *Danish Finance Institute,* 2017-
Academic Partner, Copenhagen Economics, 2002-2008

**Honours, and Awards:**

Knight (1st Class) of the Order of the Dannebrog, (Ridder af 1. grad af Dannebrog), 2021
Elected Fellow, *International Association for Applied Econometrics,* IAAE, 2021
Fellow of *Journal of Econometrics*, 2017
Fellow of *The Society for Financial Econometrics*, SoFiE, 2012-
Knight of the Order of the Dannebrog (Ridder af Dannebrog), 2010
"Den Gyldne Pegepind", teaching award, Aarhus University, 1994 and 2006, (nominated numerous other years)
Rigmor og Carl Holst-Knudsens Videnskabspris, 75,000 DKK (Aarhus University Prize for Excellence in Research), May 2001

**Research Grants:**

Research Grant, (InCommodities), *Center for Research in Energy: Economics and Markets* (CoRE), 25.000.000 DKK, plus conditional 15.000.000 DKK supplement. 2024-2028
European Research Council, "Marie Skłodowska-Curie Innovative Training Networks" for the project "Training for Big Data in Financial Research and Risk Management" (BigDataFinance), 4.117.649 DKK. 2015-2019
Research Recruiting Grants (Aarhus University Research Foundation), 2017-2023.
Research Grant (Villum Fonden), 469.000 DKK, 2015-17, Visiting Professor
Research Grant (Danmarks Nationalbank), 76.000 DKK, 2008, 75.000 DKK, 2015
Research Grant (Aarhus University Research Foundation), 500.000 DKK: AU-Ideas, 2014-16; 334.200 DKK: Guest Researchers, 2013. 478.000 DKK: Guest Researchers, 2014; 112.000 DKK, Conference
Research Grant (Stevanovich Center for Mathematical Finance, University of Chicago), 300.000 DKK, 2009
Research Grant (Danish National Research Foundation), 40,203,854 DKK: *Center for Research in Econometric Analysis of TimE Series, CREATES.* 2007-2012
Research Grant (Danish National Research Foundation), 40,000,000 DKK: *Center for Research in Econometric Analysis of TimE Series, CREATES.* 2012-2017
Research Grant (Danish Agency for Science Technology and Innovation), 2,300,000 DKK: *Danish Graduate Programme in Economics*, 2007-2012
Research Grant (Ministry of Science Technology and Innovation), PhD scholarships: 1.856.000 DKK, 2008-2011
Research Grants (Danish Council for Independent Research), various grants: 912.000 DKK , 2006-2007, 96.000 DKK, 2008, 122.400 DKK, 2009
Research Grant (The European Central Bank), 37.225 DKK, 2009
Research Grant (NBER and NSF), 66.000 DKK, 2008

Research Grant 275-05-0199 (Danish Social Sciences Research Council), 3,223,272 DKK, 2005
Research Grant, (Aarhus University Research Foundation), 240.000 DKK, 2000

**Refereeing and Programme Committees (selected):**

International reviewer (chair), ORU2020, Ørebro Universitet, Sverige, international research quality assessment, 2021

Pre-selection committee for PhD applicants, European University Institute, Ministry of Higher Education and Science, 2018 –

European Science Foundation (ESF) Community of Experts 2017-

Commissario, OSCE, Commissione per l'Abilitazione Scientifica Nationale, Ministerio dell'Istruzione, dell'Universitá e della Riceraca, Roma, Italia, 2013-2015

Research funding review panel, Department of Economics and Business Economics, Aarhus University, 2013-2017, 2024-.

Ad hoc refereeing: *The Journal of Econometrics, The Scandinavian Journal of Economics, Econometric Theory, Journal of Applied Econometrics, International Journal of Forecasting, The European Journal of Political Economy, Journal of Business and Economic Statistics, Econometric Reviews, Journal of Time Series Analysis, Economic Journal, Journal of Money Credit and Banking, Statistica Neerlandica, Statistica, Journal of Empirical Finance, Statistical Papers, The Econometrics Journal, Oxford Bulletin of Economics and Statistics, Review of Economics and Statistics, Empirical Economics, Economica, Econometrica, Bulletin of Economic Research, Journal of Population Economics, Nationaløkonomisk Tidsskrift, International Economic Review, Empirica, German Economic Review, Arab Journal of Administrative Sciences, Review of Economic Studies, International Economic Review, Energy Journal, Studies in Nonlinear Dynamics and Econometrics, Computational Statistics and Data Analysis, various edited books.*

**Memberships etc. (selected):**

Member of the Scientific Committee (chair) for NBER-NSF Time Series Conference.

Council member, *Society for Financial Econometrics, SoFiE*, 2009-

Member DAEiNA, Danish Academic Economists in North America, 2011-

Member of *The Society for Financial Econometrics*, 2007-

Member of *The American Statistical Association*, 2007-

Member of the board for *The Danish Center for Scientific Computing*, 2006-2007

Research Director, *Danish Graduate Programme in Economics*, 2006-2008

Member of School Council, School of Economics and Management, AU, 2005-2011

Member of the steering committee for *Nordic Center of Excellence Programme in the Humanities and the Social Sciences*, 2004-2005

Member of the steering committee, for the *ESF SCSS programme "Quantitative Methods in the Social Sciences"*, 2004-2008

Council Member, Danmarks Frie Forskningsråd, Forskningsrådet for Samfund og Erhverv, (Independent Research Fund Denmark), 2001-2007

**PhD Student Supervision:**

24 students graduating during 1996-2018.

**Publications:**

More than 45 publications in international peer reviewed journals and books including (see publication list for details): *Journal of Econometrics, Journal of Applied Econometrics, Journal of Business and Economic Statistics, Econometric Theory, Statistics and Probability Letters, Computational Statistics and Data Analysis, Studies in Nonlinear Dynamics and Econometrics, Palgrave Handbook of Econometrics, Journal of Forecasting, Oxford Bulletin of Economics and Statistics, Journal of Time Series Analysis, Economic Policy, Statistica Neerlandica, Journal of Economic Surveys, Journal of Policy Modelling, Journal of Competition Law and Economics, Economics Letters, Energy Journal, Energy Economics.*

**Citations (23 April 2024):**

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|---|---|
| Citations: | 2377 |
| h-index: | 22 |
| i10-index: | 33 |

**List of Publications**
**Niels Haldrup**

**Journals (peer reviewed)**

Niels Haldrup and Carsten P. T. Rosenskjold, 2019, A Parametric Factor Model of the Term Structure of Mortality, Econometrics, **7, 9**, 1-22.

Niels Haldrup and J. Eduardo Vera-Valdés, 2017, Long Memory, Fractional Integration, and Cross-sectional Aggregation, Journal of Econometrics, **199(1)**, 1-11.

Girum Dagnachew Abate and Niels Haldrup, 2017, Space-Time Modeling of Electricity Spot Prices, The Energy Journal, **38(5),** 175-196.

Yunus Emre Ergemen, Niels Haldrup and Carlos Vladimir Rodriguez-Caballero, 2016, Common Long Range Dependence in a Panel of Hourly Nord Pool Electricity Prices and Loads, Energy Economics, **60**, 79-96.

Laurent Callot, Niels Haldrup and Malene Kallestrup-Lamb, 2015, Deterministic and Stochastic Trends in the Lee-Carter Mortality Model, Applied Economics Letters, **23**, 7, 486-493.

Niels Haldrup, Robinson Kruse, Timo Teräsvirta and Rasmus Varneskov, 2013, Unit Roots, Non-linearities and Structural Breaks, Chapter 4 in N. Hashimzade and M. Thornton (Eds), Handbook of Empirical Macroeconomics. Handbook of Research Methods and Applications series, Edward Elgar Publishing Ltd.

Tim Bollerslev, Bent Jesper Christensen, Niels Haldrup and Asger Lunde, 2011, Periodicity, Non-stationarity, and Forecasting of Economic and Financial Time Series: Editor's Introduction. Journal of Time Series Econometrics, Vol. 3, Issue 1, Article 1.

Niels Haldrup, Antonio Montanés, and Andreu Sansó, 2011, Detection of Additive Outliers in Seasonal Time Series. Journal of Time Series Econometrics, Vol 3, Issue 2, Article 2.

Niels Haldrup, Frank S. Nielsen, Morten Ø. Nielsen, 2010, A Vector Autoregressive Model for Electricity Prices subject to Long Memory and Regime Switching. Energy Economics **32**, 1044-1058.

Niels Haldrup, 2010, Separation in Cointegrated Systems, Journal of Financial Econometrics **8**, 177-180.

Niels Haldrup, Peter Møllgaard, Claus Kastberg Nielsen, 2008, Sequential Versus Simultaneous Market Delineation: The Relevant Antitrust Market for Salmon, Journal of Competition Law and Economics 4(3), doi:10.1093/joclec/nhn020, 893-913.

Niels Haldrup, and Andreu Sansó, 2008, A Note on the Vogelsang Test for Additive Outliers, Statistics and Probability Letters **78**, 296-300.

Niels Haldrup, Svend Hylleberg, Gabriel Pons, and Andreu Sansó, 2007, Common Periodic Correlation Features and the Interaction of Stocks and Flows in Daily Airport Data. Journal of Business and Economic Statistics **25**, 21-32.

Niels Haldrup, and Morten Ørregaard Nielsen, 2007, Estimation of Fractional Integration in the Presence of Data Noise. Computational Statistics and Data Analysis **51**, 3100-3114.

Niels Haldrup, and Morten Ørregaard Nielsen, 2006, Directional Congestion in a Regime Switching Long Memory Model for Electricity Prices. Studies in Nonlinear Dynamics and Econometrics **10**, Issue 3, Article 1, 1-24.

Niels Haldrup, and Michael Jansson, 2006, Improving Power and Size in Unit Root Testing. Palgrave Handbooks of Econometrics: Vol. 1 Econometric Theory, Chapter 7. T. C. Mills and K. Patterson (eds.). Palgrave MacMillan, Basingstoke.

Niels Haldrup, and Morten Ørregaard Nielsen, 2006, A Regime Switching Long Memory Model for Electricity Prices. Journal of Econometrics **135**, 349-376.

Niels Haldrup, Antonio Montanés, and Andreu Sansó, 2005, Measurement Errors and Outliers in Seasonal Unit Root Testing. Journal of Econometrics **127**, 103-128.

Niels Haldrup, and Peter M. Lildholdt, 2005, Local Power Functions of Tests for Double Unit Roots. Statistica Neerlandica **59(2)**, 159-179.

Boriss Siliverstovs, Tom Engsted, and Niels Haldrup, 2004, Long-run Forecasting in Multi-Cointegrated Systems. Journal of Forecasting **23**, 315-335.

Niels Haldrup, David F. Hendry, and Herman K. van Dijk, 2003, Guest Editors Introduction: Model Selection and Evaluation in Econometrics. Oxford Bulletin of Economics and Statistics. **65**, Supplement, 681-688.

Michael Jansson, and Niels Haldrup, 2002, Regression Theory for Nearly Co-integrated Time Series. Econometric Theory, **18(6)**, 1309-1335.

Niels Haldrup, and Peter M. Lildholdt, 2002, On the Robustness of Unit Root Tests in the Presence of Double Unit Roots. Journal of Time Series Analysis, **23(2)**, 155-171.

Torben M. Andersen, Niels Haldrup, and Jan Rose Sørensen, 2000, Product Market Integration and European Labour Markets. Economic Policy, 30, April 2000, 107-133.

Tom Engsted, and Niels Haldrup, 1999, Estimating the LQAC Model with I(2) Variables. Journal of Applied Econometrics, Vol.**14(2)**, 155-170.

Tom Engsted, and Niels Haldrup, 1999, Multicointegration in Stock-Flow Models, Oxford Bulletin of Economics and Statistics, **61(2)**, 237-254.

Niels Haldrup, 1998, An Econometric Analysis of I(2) Variables, Journal of Economic Surveys **12(5)**, pp. 595-650. Also published in: Les Oxley and Michael McAleer (eds.), 1999, Practical Issues in Cointegration Analysis, Blackwell, Oxford, 179-234.

Niels Haldrup, and Mark Salmon, 1998, Representations of I(2) Cointegrated Systems using the Smith-McMillan Form. Journal of Econometrics **84,** 303-325.

Niels Haldrup, and Svend Hylleberg, 1997, Near Integration and Deterministic Trends. Statistical Papers **38**, 77-101.

Tom Engsted, and Niels Haldrup, 1997, Money Demand, Adjustment Costs, and Forward looking Behaviour. Journal of Policy Modeling **19,** 153-173.

H. Peter Boswijk, Philip Hans Franses, and Niels Haldrup, 1997, Multiple Unit Roots in Periodic Autoregression. Journal of Econometrics **80**, 167-193.

Clive W. J. Granger, and Niels Haldrup, 1997, Separation in Cointegrated Systems and Persistent-Transitory Decompositions. Oxford Bulletin of Economics and Statistics **59,** 449-463. Also printed in Ghysels, E., N.R. Swanson, and M.W. Watson, 2001, Essays in Econometrics, Collected Papers of Clive. W.J. Granger, Vol. II, Causality, Integration and Cointegration, Cambridge University Press.

Tom Engsted, Jesus Gonzalo, and Niels Haldrup, 1997, Testing for Multicointegration. Economics Letters **56,** 259-266.

Niels Haldrup, 1996, Mirror Image Distributions and the Dickey Fuller Regression with a Maintained Trend. Journal of Econometrics **72**, 301-313.

Niels Haldrup, and Svend Hylleberg, 1995, A Note on the Least Squares Estimator of a Random Walk with Drift,- Some Analytical Evidence. Economics Letters **48**, 221-228.

Niels Haldrup, 1994, The Asymptotics of Single Equation Cointegration Regression Models with I(1) and I(2) variables. Journal of Econometrics **63**, 153-181.

Philip Hans Franses, and Niels Haldrup, 1994, The Effects of Additive Outliers on Tests for Unit Roots and Cointegration. Journal of Business and Economic Statistics **12**, 471-478.

Niels Haldrup, 1994, Semi-Parametric Tests for Double Unit Roots. Journal of Business and Economic Statistics **12**, 109-122.

Tom Engsted, and Niels Haldrup, 1994, The Linear Quadratic Adjustment Cost Model and the Demand for Labour. Journal of Applied Econometrics **9**, Supplement, 145-S159.

Niels Haldrup, 1994, Heteroscedasticity in Non-stationary Time Series. Some Monte Carlo Evidence. Statistical Papers **35**, 287-307.

**Books, Journal Editing, and Conference Proceedings:**

Niels Haldrup, Mika Meitz, and Pentti Saikkonen, 2014, Essays on Nonlinear Time Series Econometrics. Oxford University Press.

Tim Bollerslev, Bent Jesper Christensen, Niels Haldrup and Asger Lunde, 2011, Periodicity, Non-stationarity, and Forecasting of Economic and Financial Time Series. Edited special issue of Journal of Time Series Econometrics, Vol. 3, Issue 1, Articles 1-12.

Niels Haldrup, David F. Hendry, and Herman K. van Dijk, 2003, Model Selection and Evaluation in Econometrics. Edited special issue of Oxford Bulletin of Economics and Statistics, **65**, Supplement, 681-906.

Clive W. J. Granger, and Niels Haldrup, 2001, Separation in Cointegrated Systems and Persistent-Transitory Decompositions. In Ghysels, E., N.R. Swanson, and M.W. Watson, Essays in Econometrics, Collected Papers of Clive. W.J. Granger, Vol. II, Causality, Integration and Cointegration, Cambridge University Press. Also printed in Oxford Bulletin of Economics and Statistics **59,** 1997, 449-463.

Henning Bunzel, Bent Jesper Christensen, Niels Haldrup, Svend Hylleberg, Viggo Høst, Peter Jensen, og Allan Würtz, 2000, Udviklingslinier i Økonometrien. In: Christian Hjort Andersen (ed.), Udviklingslinier i Økonomisk Teori. Jurist og Økonomforbundets Forlag.

Niels Haldrup, 1999, An Econometric Analysis of I(2) Variables. In: Les Oxley and Michael McAleer (eds.), Practical Issues in Cointegration Analysis, Blackwell, Oxford, 179-234. Also published in Journal of Economic Surveys **12(5)**, 1998, 595-650.

Niels Haldrup, 1998, Spurious regression amongst dependent integrated processes. In V. Høst and H.J. Juhl (eds.), 20th Symposium in Applied Statistics, 327-339.

Tom Engsted, and Niels Haldrup, 1994, Testing Quadratic Adjustment Cost Models within a Cointegrated VAR, in K. Juselius (ed.), Econometric modeling of long-run relations and common trends - Theory and applications **4**, 269-294.

**Book Reviews:**

Niels Haldrup, 2000, A review of *Unit Roots, Cointegration, and Structural Change* by G.S. Maddala and In-Moo Kim, Cambridge University Press, 1998. Economic Journal, Vol. 110, November, 2000, F800-F803.

**Articles in Danish:**

Charlotte Christiansen and Niels Haldrup, 2004, Nobel-prisen i Økonomi 2003, Tidsserieøkonometri: Cointegration og ARCH, Clive W.J. Granger og Robert F. Engle. Finans/Invest 2/04, 23-27.

**Published Consultancy Reports:**

Co-author on "The internal market and the relevant geographical market-The impact of the completion of the Single Market Programme on the definition of the relevant geograhical market" by Copenhagen Economics, 2004. Published as *Enterprise Papers* no. 15, 2004, Enterprise Directorate-General, European Commission, Bruxelles, Belgium.

Niels Haldrup, 2004, Estimation af middellevetider for mænd og kvinder i Danmark 2002-2100 baseret på Lee-Carter Metoden, Arbejdsrapport 2004:3; Velfærdskommissionen.