

Public CV for Søren Johansen

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Short presentation

Research Fields: Econometrics, mathematical statistics and probability theory, time series analysis, including cointegration and its applications, fractional processes, outlier detection, robust statistics.

Research groups: I am currently not a member of any research groups

Most essential academic contribution: My most influential work is related to cointegration of economic time series, which has had an impact on theory and practice in the application and analysis of macro economic time series. In collaboration with Katarina Juselius we have developed the theory and applications of these concepts and methods in the framework of the vector autoregressive model. The methods have widespread use in academia and applied macro economics.

Qualifications

mathematical statistics, cand. stat, dr.phil, University of Copenhagen

Award Date: 4 Feb 1964

Presentation

Research Fields

Mathematical Statistics including times series analysis, cointegration, outlier detection robust inference fractional processes

Academic Contribution

My most influential work is related to cointegration of economic time series, which has had an impact on theory and practice in the application and analysis of macro economic time series.

In collaboration with Katarina Juselius we have developed the theory and applications of these concepts and methods in the framework of the vector autoregressive model. The methods have widespread use in academia and applied macro economics.

CV

Born 6 November 1939

Cand. stat. University of Copenhagen 1964, dr. phil. University of Copenhagen 1974.

Previous Employment

Institute of Mathematical Statistics, University of Copenhagen, 1964-2006

European University Institute, Florence, 1996-2001

Current Employment

Department of Economics, University of Copenhagen 2007-

CREATES, Aarhus University, 2007-2017.

Publications

WEAK CONVERGENCE TO DERIVATIVES OF FRACTIONAL BROWNIAN MOTION

Johansen, Søren & Nielsen, M. Ø., 2024, In: *Econometric Theory*. p. 1-16

A model where the least trimmed squares estimator is maximum likelihood

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Uniform Consistency of Marked and Weighted Empirical Distributions of Residuals

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The Knightian Uncertainty Hypothesis: Unforeseeable Change and Muth's Consistency Constraint in Modeling Aggregate Outcomes

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Testing the CVAR in the Fractional CVAR Model

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Cointegration between Trends and Their Estimators in State Space Models and Cointegrated Vector Autoregressive Models

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Discussion of 'The Forward Search: Theory and Data Analysis' by Anthony C. Atkinson, Marco Riani, and Andrea Ceroli

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Likelihood inference for a nonstationary fractional autoregressive model

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Some Identification Problems in the Cointegrated Vector Autoregressive Model

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Johansen, Søren & Juselius, Katarina, 2010, *European Economics at a Crossroads*. Rosser, Jr., J. B., Holt, R. P. F. & Colander, D. (eds.). Cheltenham, UK: Edward Elgar Publishing, p. 115-131 16 p.

Testing hypotheses in an I(2) model with piecewise linear trends. An analysis of the persistent long swings in the Dmk/\$ rate

Johansen, Søren, Juselius, Katarina, Frydman, R. & Goldberg, M., 2010, In: *Journal of Econometrics*. 158, 1, p. 117-129 13 p.

The Analysis of Nonstationary Time Series Using Regression, Correlation and Cointegration with an Application to Annual Mean Temperature and Sea Level

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Johansen, Søren & Nielsen, B., 2009, *The Methodology and Practice of Econometrics: A Festschrift in Honour of David F. Hendry*. Shepard, N. & Castle, J. (eds.). Oxford: Oxford University Press, p. 1-36 36 p.

Cointegration: Overview and Development

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On a Numerical and Graphical Technique for Evaluating some Models Involving Rational Expectations

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Representation of cointegrated autoregressive processes with application to fractional processes

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A Resolution of the Purchasing Power Parity Puzzle: Imperfect Knowledge and Long Swings

Frydman, R., Goldberg, M. D., Johansen, Søren & Juselius, Katarina, 2008, Department of Economics, University of Copenhagen, 37 p.

A representation theory for a class of vector autoregressive models for fractional processes

Johansen, Søren, 2008, In: *Econometric Theory*. 24, 3, p. 651-676 26 p.

Allowing the Data to Speak Freely: The Macroeconometrics of the Cointegrated Vector Autoregression

Hoover, K. D., Johansen, Søren & Juselius, Katarina, 2008, In: *American Economic Review (Print Edition)*. 2 (Papers & Proceedings), p. 251-255 5 p.

An Analysis of the Indicator Saturation Estimator as a Robust Regression Estimator

Johansen, Søren & Nielsen, B., 2008, Department of Economics, University of Copenhagen, 35 p.

Automatic selection of indicators in a fully saturated regression

Hendry, D. F., Johansen, Søren & Santos, C., 2008, In: *Computational Statistics*. 23, 2, p. 317-335 19 p.

Correlation, regression, and cointegration of nonstationary economic time series

Johansen, Søren, 2008, *Bulletin of the International Statistical Institute vol. LXII: Proceedings of the 56th session of the International Statistical Institute, 22-29 August 2007, Lisboa, Portugal*. Gomes, M. I., Martins, J. A. P. & Silva, J. A. (eds.). Instituto Nacional de Estatística, p. 19-26 8 p.

Exact rational expectations, cointegration, and reduced rank regression

Johansen, Søren & Swensen, A. R., 2008, In: *Journal of Statistical Planning and Inference*. 138, 9, p. 2738-2748 11 p.

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Johansen, Søren, 2008, *The New Palgrave Dictionary of Economics*. Durlauf, S. N. & Blume, L. E. (eds.). 2 ed. Palgrave Macmillan, 7 p.

Allowing the Data to Speak Freely: The Macroeconometrics of the Cointegrated Vector Autoregression

Hoover, K. D., Juselius, Katarina & Johansen, Søren, 2007, Department of Economics, University of Copenhagen, 10 p.

Comment on "A Semi-Empirical Approach to Projecting Future Sea-Level Rise"

Johansen, Søren, Schmith, T. & Thejll, P., 2007, In: *Science*. 317, 5846, p. 1866

Correlation, Regression, and Cointegration of Nonstationary Economic Time Series

Johansen, Søren, 2007, Department of Economics, University of Copenhagen, 9 p.

Exact Rational Expectations, Cointegration, and Reduced Rank Regression

Johansen, Søren & Swensen, A. R., 2007, Department of Economics, University of Copenhagen, 10 p.

Likelihood Inference for a Nonstationary Fractional Autoregressive Model

Johansen, Søren & Nielsen, M. Ø., 2007, Department of Economics, University of Copenhagen, 45 p.

Selecting a Regression Saturated by Indicators

Hendry, D. F., Johansen, Søren & Santos, C., 2007, Department of Economics, University of Copenhagen, 17 p.

Some Identification Problems in the Cointegrated Vector Autoregressive Model

Johansen, Søren, 2007, Department of Economics, University of Copenhagen, 26 p.

Testing Hypotheses in an I(2) Model with Applications to the Persistent Long Swings in the Dmk/\$ Rate

Johansen, Søren, Juselius, Katarina, Frydman, R. & Goldberg, M., 2007, Department of Economics, University of Copenhagen, 33 p.

Cointegration. Overview and Development

Johansen, Søren, 2006, Department of Applied Mathematics and Statistics / University of Copenhagen, p. 1-22.

Cointegration: a survey

Johansen, Søren, 2006, *Handbook of Econometrics: Vol 1 Econometric Theory*. Mills, T. C. & Palgrave, K. P. (eds.). Palgrave Macmillan, Vol. 1. p. 540-577

Confronting the Economic Model with the Data

Johansen, Søren, 2006, *Post Walrasian Macroeconomics. Beyond the Dynamic Stochastic General Equilibrium Model*. Colander, D. (ed.). Cambridge University Press, p. 287-300

Extracting information from the data: a European view on empirical macro

Juselius, Katarina & Johansen, Søren, 2006, *Post Walrasian Macroeconomics: Beyond the Dynamic Stochastic General Equilibrium Model*. Colander, D. (ed.). Cambridge: Cambridge University Press, p. 301-333

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Johansen, Søren & Juselius, Katarina, 2005, *General-to-Specific Modelling, Vol 1*. Campos, J., Ericsson, N. & Hendry, D. (eds.). Edward Elgar Publishing, p. 512-553

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Representation of Cointegrated Autoregressive Processes with Application to Fractional Processes

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The interpretation of cointegrating coefficients in the cointegrated vector autoregressive model

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29 Oct 2015

Optimal hedging with the cointegrated vector autoregressive model

Johansen, Søren (Lecturer)

26 Oct 2015

Likelihood inference for a vector autoregressive model for fractional and cofractional processes

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Optimal hedging and optimal Sharpe ratio in the cointegrated vector autoregressive model

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17 Sep 2015

Cointegration in times series

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23 Aug 2015

A stochastic expansion of the Huber-skip estimator for multiple regression Huber-skip estimator

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15 Jun 2015

Optimal hedging with the cointegrated vector autoregressive model

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Sixth Italian congress of econometrics and empirical economics

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21 Jan 2015

Communications in Statistics (Journal)

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2015 → ...

Econometrics (Journal)

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Scandinavian Journal of Statistics (Journal)

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Theoretical developments: an overview of recent results and some future problems Cointegration: Theory and Applications

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Asymptotic theory of M-estimators for multiple regression Huber-skip estimator

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METHODOLOGY - European Journal of Research Methods for the Behavioral and Social Sciences (Journal)

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Statistical analysis of global surface temperature and sea level using analysis of non stationary time series

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