

Guillaume CHEVILLON

Professor

Department: Information Systems, Decision

Sciences and Statistics

ESSEC Business School

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Country of origin: France

RESEARCH INTERESTS

Artificial Intelligence (AI), data, Economy, Econometrics, Macroeconomics, Forecasting Analytics

EDUCATION

- | | |
|------|---|
| 2004 | D.Phil. in Economics, University of Oxford, United Kingdom |
| 2000 | M.Phil. in Economics, Brasenose College, University of Oxford, United Kingdom |
| 1998 | M.Sc. in Executive Engineering (Diplôme d'Ingénieur), Mines ParisTech, France |

EMPLOYMENT

Full-time academic positions

- | | |
|----------------|--|
| 2015 - Present | Professor, ESSEC Business School, France |
| 2010 - 2015 | Associate Professor, ESSEC Business School, France |
| 2006 - 2010 | Assistant Professor, ESSEC Business School, France |

Other affiliations and appointments

- | | |
|-------------|--|
| 2020 - 2024 | Academic director / Pedagogical Head, ESSEC Business School, France |
| 2020 - 2022 | Department head, ESSEC Business School, France |
| 2015 - 2024 | CoDirector of the MSc in Data Sciences & Business Analytics (ESSEC-CentraleSupélec), ESSEC Business School, France |
| 2020 - 2020 | Visiting Professor, UNSW Business School, Australia |
| 2020 - 2020 | Visiting Professor, Keio University, Japan |
| 2020 - 2020 | Visiting Professor, Fukuoka University, Japan |
| 2012 - 2013 | Visiting Scholar (9 months), Economics Department, New York University, United States of America |
| 2012 - 2012 | Visiting Scholar (3 months), Money and Macro Function, Federal Reserve Bank of New York, United States of America |
| 2011 - 2011 | Visiting Professor (half a term), Economics Department, University of Oxford, United Kingdom |

2008 - Present	Associate Researcher, Center for Research in Economics and Statistics (CREST), France
2007 - 2010	Visiting Scholar (regular stays several times a year), Economics Department, Brown University, United States of America
2003 - 2006	Research Fellow (Economics) at OFCE, Institut d'Etudes Politiques, France
2000 - 2002	Research Assistant for Prof D. F. Hendry, Economics Department, University of Oxford, United Kingdom

GRANTS AND HONORS

Grants

2023	Research grant on AI driven oncological treatments, France
2021	CY Projet Emergence, France
2016	White Project, ESSEC Foundation, France
2014	Regular grants by the Labex MME-DII, Labex MME-DII, France
2007	Research grants, Europlace Institute of Finance (in collaboration), Institut Europlace de Finance (IEF), France
2007	Regular grants by the Research Center at ESSEC since 2007, ESSEC Business School, France

PUBLICATIONS

Journal Articles

- CHEVILLON, G., MAVROEIDIS, S. and ZHAN, Z. (2020). Robust Inference in Structural Vector Autoregressions with Long-Run Restrictions. *Econometric Theory*, 36(1), pp. 86-121.
- BANERJEE, A., CHEVILLON, G. and KRATZ, M. (2020). Probabilistic Forecasting of Bubbles and Flash Crashes. *Econometrics Journal*, 23(2).
- CHEVILLON, G., HECQ, A. and LAURENT, G. (2018). Generating Univariate Fractional Integration within a Large VAR(1), *Journal of Econometrics*, 1(204), pp. 54-65.
- CHEVILLON, G. and MAVROEIDIS, S. (2018). Perpetual Learning and Apparent Long Memory. *Journal of Economic Dynamics and Control*, 90, pp. 343-365.
- CHEVILLON, G. and MAVROEIDIS, S. (2017). Learning can generate long memory. *Journal of Econometrics*, 198(1), pp. 1-9.
- CHEVILLON, G. (2017). Robust Cointegration Testing in the Presence of Weak Trends, with an Application to the Human Origin of Global Warming. *Econometric Reviews*, 36(5), pp. 514-545.
- CHEVILLON, G. (2016). Multistep Forecasting in the Presence of Location Shifts. *International Journal of Forecasting*, 32(1), pp. 121-137.
- CHEVILLON, G. (2014). Multi-step Forecast Error Corrections: A Comment on "Evaluating Predictive Densities of US Output Growth and Inflation in a Large Macroeconomic Data Set" by Barbara Rossi and Tatevik Sekhposyan. *International Journal of Forecasting*, 30(3), pp. 683-687.

CHEVILLON, G., MASSMANN, M. and MAVROEIDIS, S. (2010). Inference in Models with Adaptive Learning. *Journal of Monetary Economics*, 57(3), pp. 341-351.

CHEVILLON, G. (2009). Multi-Step Forecasting in Emerging Economies: An Investigation of the South African GDP. *International Journal of Forecasting*, 25(3), pp. 602-628.

CHEVILLON, G. and RIFFLART, C. (2009). Physical Market Determinants of the Price of Crude Oil and the Market Premium. *Energy Economics*, 31(4), pp. 537-549.

CHARLETY-LEPERS, P., CHEVILLON, G. and MESSAOUDI, M. (2009). Stratégies de vote en AG face aux résolutions externes. *Revue Française de Gestion*, 198(8-9), pp. 277-296.

CHEVILLON, G. (2007). Direct Multi-step Estimation and Forecasting. *Journal of Economic Surveys*, 21(4), pp. 746-785.

CHEVILLON, G. (2005). Analyse Économétrique et Compréhension des Erreurs de Préviation. *Revue de l'OFCE*, 95, pp. 327-356.

CHEVILLON, G. and HENDRY, D. (2005). Non-parametric Direct Multi-Step Estimation for Forecasting Economic Processes. *International Journal of Forecasting*, 21, pp. 201-218.

CHEVILLON, G. and RIFFLART, C. (2004). Brouillard autour des puits de pétrole. *Revue de l'OFCE*, (253), pp. 1-4.

CHEVILLON, G. and DAP (2004). Les tribulations de la parité euro/dollar, *Revue de l'OFCE*, (252), pp. 1-4.

Book chapters

CHEVILLON, G. and TIMBEAU, X. (2006). Impact du taux de change sur le tourisme en France. In: *Evolution Recente du commerce extérieur Français*. 1st ed. Paris: La Documentation Française, pp. 99-108.

CHEVILLON, G., HEYER, E. and LEMOINE, M. (2004). Perspectives de l'économie Française à l'horizon 2009. In: *Rapport d'information du Sénat n° 70*. 1st ed. Paris: pp. 138-203.

CHAUVIN, V., CHEVILLON, G. and HEYER, E. (2003). Perspectives de l'économie Française à l'horizon 2008. In: *Rapport d'information du Sénat n° 69*. 1st ed. Paris: pp. 132-188.

Conference proceedings

CHEVILLON, G. (2009). Multi-step Forecasting and Predictive Regressions. In: *Far Eastern and South Asian Meeting of the Econometric Society (Site internet)*. University of Tokyo.

CHEVILLON, G. (2009). Multi-step Forecasting in the Presence of Location Shifts. In: *3rd Annual Conference Recent Developments in Time Series Econometrics (Site Internet)*. University of Nottingham.

CHEVILLON, G., MASSMANN, M. and MAVROEIDIS, S. (2008). Inference in Models with Adaptive Learning, with an Application to the New Keynesian Phillips Curve. In: *Far Eastern and South Asian Meeting of the Econometric Society*. Singapore Management University (SMU).

CHEVILLON, G. (2008). Small Sample Properties of Multistep Forecasts in the Presence of Location Shifts. In: *CIMF Workshop Proceedings: Forecasting Under Model Instability*. University of Cambridge.

CHEVILLON, G. (2007). Finite Sample Distributions of Estimators and Predictors of Non-stationary Processes. In: *EEA-ESEM 2007*. European Economic Association (EEA).

CHEVILLON, G. (2007). Finite Sample Inference in the Presence of Stochastic and Deterministic Trends. In: *FEMES 2007. Far Eastern Meeting of the Econometric Society*. Academia Sinica.

CHEVILLON, G., MASSMAN, M. and MAVROEIDIS, S. (2007). Structural Inference in Models with Learning. In: *Proceedings of the Conference in the Honour of David F. Hendry*. Oxford University Press.

CHEVILLON, G. (2006). Finite Sample Cointegration in the Presence of Deterministic Trends. In: *NBER & NSF 2006 Time Series Conference*. Centre Interuniversitaire de Recherche en Économie Quantitative (CIREQ).

CHEVILLON, G. (2006). Finite Sample Cointegration Testing Using Weak Trends. In: *5e Journée d'Économétrie- Développements récents de l'économétrie appliquée à la finance*. EconomiX-Paris 10 Nanterre.

CHEVILLON, G. (2006). Finite Sample Cointegration Testing Using Weak Trends. In: *2006 LACEA-LAMES. Latin American Meeting of the Econometric Society*. ITAM.

Conferences

CHEVILLON, G. and KURITA, T. (2023). What Does it Take to Control Global Temperatures? Prospective and Counterfactual Carbon Abatement Policies in a Cointegrated VAR Model. In: *2023 Symposium of the Society for Nonlinear Dynamics & Econometrics*. Orlando.

CHEVILLON, G. (2022). We modeled long-memory with one lag! In: *2022 Aarhus Workshop in Econometrics*. Aarhus.

CHEVILLON, G. and KURITA, T. (2022). What Does It Take to Control Global Temperatures? Prospective and Counterfactual Carbon Abatement Policies in a Cointegrated Vector Autoregressive Model. In: *2022 International Symposium on Forecasting (IFS)*. Oxford.

CHEVILLON, G. (2022). The Bias-Variance Trade-off in (Un)Conditional Multistep Forecasting, Predictive Regressions and Local Projections. In: *2022 Society for Financial Econometrics (SoFiE) Annual Meeting*. Cambridge.

CHEVILLON, G. and KURITA, T. (2022). What Does It Take to Control Global Temperatures? Prospective and Counterfactual Carbon Abatement Policies in a Cointegrated Vector Autoregressive Model. In: *2022 International Association for Applied Econometrics (IAAE) Conference*. London.

BAUWENS, L., CHEVILLON, G. and LAURENT, S. (2022). We Modeled Long Memory with One Lag! In: *2022 Quantitative Finance & Financial Econometrics*. Marseille.

CHEVILLON, G. and KURITA, T. (2022). Counterfactual Policy Analysis in a Cointegrated Vector Autoregressive Model, with an Application to Monetary Policy near the Zero Lower Bound. In: *2022 Society for Nonlinear Dynamics and Econometrics (SNDE) Symposium*. Online.

BAUWENS, L. and CHEVILLON, G. (2021). We Modelled Long Memory with Just One Lag! In: *15th International Conference on Computational and Financial Econometrics (CFE)*. London.

BAUWENS, L., CHEVILLON, G. and LAURENT, S. (2019). Forecasting Long Memory through a VAR Model. In: *4th Vienna Workshop on High-Dimensional Time Series in Macroeconomics and Finance 2019*.

CHEVILLON, G. (2019). The Bias-Variance Trade-off in Multistep Forecasting and Predictive Regressions at Intermediate and Long Horizons. In: *27th annual symposium of the Society for Nonlinear Dynamics and Econometrics 2019*.

CHEVILLON, G. (2019). The Bias-Variance Trade-off in Multistep Forecasting and Predictive Regressions at Intermediate and Long Horizons. In: *2019 Quantitative Finance and Financial Econometrics (QFFE)*.

- CHEVILLON, G. and MAVROEIDIS, S. (2019). The Shadow of a Doubt. In: 2019 Workshop Annuel de l'ANR MultiRisk.
- CHEVILLON, G. (2018). Exuberance: Sentiments Driven Buoyancy. In: 2018 Econometric Theory and Time Series Analysis (ETTSA) Workshop.
- BAUWENS, L., CHEVILLON, G. and LAURENT, S. (2018). Forecast Comparisons for Long Memory. In: Quantitative Finance and Financial Econometrics (QFFE 2018).
- CHEVILLON, G., BAUWENS, L. and LAURENT, S. (2018). Forecasting Long Memory via a VAR Model. In: 12th International Conference on Computational and Financial Econometrics (CE) 2018.
- CHEVILLON, G., BAUWENS, L. and LAURENT, S. (2018). Forecasting Long Memory via a VAR Model. In: 1st Applied Financial Econometrics Workshop.
- CHEVILLON, G., BAUWENS, L. and LAURENT, S. (2018). Forecasting Long Memory via a VAR Model. In: Workshop on Long Memory.
- CHEVILLON, G. and MAVROEIDIS, S. (2018). Perpetual Learning and Apparent Long Memory. In: 26th Annual Symposium of the Society for Nonlinear Dynamics & Econometrics.
- BANERJEE, A., CHEVILLON, G. and KRATZ, M. (2018). Probabilistic Forecasting of Bubbles and Flash Crashes. In: 2018 Asian Meeting of the Econometric Society.
- CHEVILLON, G., HECQ, A. and LAURENT, S. (2016). Long Memory Through Marginalization of Large Systems and Hidden Cross-Section Dependence. In: 2016 Asian Meeting of the Econometric Society (AMES2016).
- CHEVILLON, G., HECQ, A. and LAURENT, S. (2016). Long Memory Through Marginalization of Large Systems and Hidden Cross-Section Dependence. In: 2016 Summer Forum of the Barcelona School of Economics.
- CHEVILLON, G., MAVROEIDIS, S. and ZANG, Z. (2016). Robust Inference in Structural VARs with Long-Run Restrictions. In: 24th Symposium of the Society for Nonlinear Dynamics and Econometrics.
- CHEVILLON, G., MAVROEIDIS, S. and ZHAN, Z. (2016). Robust Inference in Structural VARs with Long-Run Restrictions. In: 10th International Conference on Computational and Financial Econometrics.
- CHEVILLON, G. and SOPHOCLES, M. (2015). Learning Can Generate Long Memory. In: 2nd Annual Conference of the International Association for Applied Econometrics (IAAE).
- CHEVILLON, G., HECQ, A. and LAURENT, S. (2015). Long Memory through Cross-Section Dependence and Marginalization. In: 23rd Annual Symposium of the Society for Nonlinear Dynamics and Econometrics.
- CHEVILLON, G., LAURENT, S. and HECQ, A. (2015). Long Memory Through Marginalization of Large Systems and Hidden Cross Section Dependence. In: 4th Long-Memory Symposium.
- CHEVILLON, G., SOPHOCLES, M. and ZHAOGUO, Z. (2015). Robust inference in Structural VARs with Long-Run Restrictions. In: 38th Annual National Bureau of Economic Research (NBER) Summer Institute.
- CHEVILLON, G., NAVROEIDIS, S. and ZHAN, Z. (2015). Robust Inference in Structural VARS within Long Run Restrictions. In: 16th OxMetrics User Conference.
- CHEVILLON, G., BANERJEE, A. and KRATZ, M. (2014). Detecting and Forecasting Large Deviations and Bubbles in a Near-Explosive Random Coefficient Model. In: 68th European Meeting of the Econometric Society.

BANERJEE, A., CHEVILLON, G. and KRATZ, M. (2014). Detecting and Forecasting Large Deviations and Bubbles in a Near-Explosive Random Co-efficient Model. In: Summer Institute 2014 of the National Bureau of Economic Research.

CHEVILLON, G., BANERJEE, A. and KRATZ, M. (2014). Forecasting Bubbles in a Near Explosive Random Coefficient Model. In: 25th EC2 Conference on "Advances in Forecasting".

CHEVILLON, G., HECQ, A. and LAURENT, S. (2014). Persistence Through Correlation. In: 15th OxMetrics User Conference.

CHEVILLON, G., BANERJEE, A. and KRATZ, M. (2014). Sentiment Driven Buoyancy. In: 8th International Conference on Computational and Financial Econometrics (CFE 2014).

CHEVILLON, G. and MAVROEIDIS, S. (2014). The Shadow of a Doubt: The Dynamic Impact of Exceptional Uncertainty. In: 2014 Society for Nonlinear Dynamics and Econometrics (SNDE) Conference.

CHEVILLON, G. (2013). Detecting and Forecasting Large Deviations and Bubbles in a near Explosive Random Coefficient Model. In: 2013 NBER-NSF Time Series Conference.

CHEVILLON, G. (2013). Long Memory through Correlation. In: 7th Annual Methods in International Finance Network Workshop.

CHEVILLON, G., HECQ, A. and LAURENT, S. (2013). Long Memory Through Correlation. In: 7th International Conference on Computational and Financial Econometrics (CFE).

BANERJEE, A., CHEVILLON, G. and KRATZ, M. (2012). Detecting and Predicting Rational Asset Price Bubbles in a Near Explosive Random Coefficient Autoregressive Model. In: SMU-ESSEC Symposium on Empirical Finance and Financial Econometrics 2012.

CHEVILLON, G. (2012). Learning Can Generate Long Memory. In: 2012 NBER-NSF Time Series Conference.

CHEVILLON, G. and MAVROEIDIS, S. (2012). Learning Generates Long Memory. In: 20th Symposium of the Society for Nonlinear Dynamics and Econometrics.

Working Papers

CHEVILLON, G., MAVROEIDIS, S. and ZHAN, Z. (2017). *Robust Inference in Structural VARs with Long-Run Restrictions*. ESSEC Business School.

CHEVILLON, G. (2017). *Robustness of Multistep Forecasts and Predictive Regressions at Intermediate and Long Horizons*. ESSEC Business School.

CHEVILLON, G., HECQ, A. and LAURENT, S. (2015). *Long Memory Through Marginalization of Large Systems and Hidden Cross-Section Dependence*. ESSEC Business School.

BANERJEE, A., CHEVILLON, G. and KRATZ, M. (2013). *Detecting and Forecasting Large Deviations and Bubbles in a Near-Explosive Random Coefficient Model*. ESSEC Business School.

CHEVILLON, G. (2013). *Robust Cointegration Testing in the Presence of Weak Trends, with an Application to the Human Origin of Global Warming*. ESSEC Business School.

CHEVILLON, G. (2012). *Local-Explosive Approximations to Null Distributions of the Johansen Cointegration Test, with an Application to Cyclical Concordance in the Euro Area*. ESSEC Business School.

CHEVILLON, G. and MAVROEIDIS, S. (2011). *Learning Generates Long Memory*. ESSEC Business School.

CHEVILLON, G. (2007). *Inference in the Presence of Stochastic and Deterministic Trends*. ESSEC Business School.

CHEVILLON, G. and RIFFLART, C. (2007). *Physical Market Determinants of the Price of Crude Oil and the Market Premium*. ESSEC Business School.

Press

CHEVILLON, G. 2017. *Data Scientist: Think Big! Short interview by Mireille Weinber*. October.

CHEVILLON, G. 2017. *Managing the robots. Short interview*. September.

CHEVILLON, G. 2016. *Stop à l'anarchie sur les médias sociaux ? Interview by Thierry Boutte*. November.

CHEVILLON, G. and MALAURENT, J. (2023). Nous ne sommes pas voués à être remplacés par des machines, aussi "intelligentes" soient-elles. *Le Monde*.

CHEVILLON, G. (2022). L'algorithme est in influenceur comme les autres. *Le Monde*.

CHEVILLON, G. (2019). Il semble illusoire de contrôler a priori les outils d'intelligence artificielle car leurs conséquences sont quasi imprévisibles. *Le Monde*.

CHEVILLON, G. (2018). Et si on réinitialisait les réseaux sociaux en 2019 ? *La Libre Belgique*.

CHEVILLON, G. (2018). Les employeurs sont à la recherche d'ingénieurs-managers, interview by M. de Amorim. *Le Monde*.

CHEVILLON, G. (2018). Et si on réinitialisait les réseaux sociaux ? *Libération*.

CHEVILLON, G. (2016). Des algorithmes dangereux pour le débat démocratique. *Libération*.

CHEVILLON, G. (2016). L'étudiant co-créateur de sa formation. *Le Monde des Grandes Ecoles*.

CHEVILLON, G. (2016). La nécessité de l'alliance data sciences et business analytics dans la création de valeur. *Journal des Grandes Écoles*.

CHEVILLON, G. (2015). La Banque centrale européenne agit-elle trop tard ? *La Tribune*.

CHEVILLON, G. (2014). How econometrics helps us explain Climate Change. *ESSEC Knowledge*.

CHEVILLON, G. (2014). Three Big Questions Preoccupying Economists. *ESSEC Knowledge*.

CHEVILLON, G. (2013). Homo-oeconomicus : un comportement modèle ou un modèle de comportement ? *La Tribune*.

CHEVILLON, G. (2012). Tous les électeurs sont-ils égaux ? *Les Echos*.

CHEVILLON, G. (2004). Buts et Abus d'une Constitution. *Libération*, pp. 40-40.

CHEVILLON, G. (2004). Commerce Extérieur: les Raisons du Déficit. Interview by Sophie Fay. *Le Monde*.

OTHER RESEARCH ACTIVITIES

Editorial Board Membership

2016 - 2020 Revue Economique

Ad-hoc reviewer for :

Econometric Reviews, Econometric Theory, Econometrics Journal, Energy Economics, International Journal of Forecasting, International Review of Economics and Finance, Journal of Applied Econometrics, Journal of Banking & Finance, Journal of Business and Economic Statistics, Journal of Econometrics, Journal of Economic Dynamics and Control, Journal of Economic Surveys, Journal of Forecasting, Journal of Housing Economics, Journal of the Royal Statistical Society: Series B (Statistical Methodology), Journal of Time Series Analysis, L'Actualité Économique, Lithuanian Mathematical Journal, Macroeconomic Dynamics, Nature Climate Change, Oeconomia, Oxford Bulletin of Economics and Statistics, Quantitative Economics, Review of Economic Dynamics, Revue Economique, Risk, Statistical Methods and Applications

Organisation of a conference

- Since 2020 Local Organizer: 2020 (EC)² High Dimensional Modelling in Time Series
- Since 2018 Co-Organized: Workshop in Time Series
- Since 2017 Organizer: 19th Oxmetrics User Conference
- Since 2017 Co-organizer 25th annual Symposium of the Society for Nonlinear Dynamics & Econometrics
- Since 2016 Co-organizer: 8th French Econometrics Conference
- 2015 Co-Organizer of Advances in Time Series and Forecasting, in the honor of J.-P. Indjehagopian, workshop on « Current Trends in Time Series Econometrics », ESSEC Business School, France
- 2014 Co-organizer of Banque de France & ESSEC workshop on Expectations & Forecasting, December 10. ESSEC-CentraleSupélec Conference on Big Data, May 16.
- Since 2006 ESSEC Statistics and Econometrics seminar co-organizer, ESSEC Business School, France

PhD Supervision

- 2019 Yong June YOON (ESSEC Business School), Thesis director, First Placement: Economist - The Bank of Korea
- 2019 Joonsuk KWON (ESSEC Business School), Thesis director, First Placement: Economist - The Bank of Korea
- 2016 Oana PEIA (ESSEC Business School), Thesis co-director, First Placement: Assistant Professor - University College Dublin School of Economics

Other research activities

- Since 2020 Member of the Scientific Committee of Symposium of the Society for Nonlinear Dynamics and Econometrics, University of Zagreb
- Since 2019 Member of the Scientific Committee of Symposium of the Society for Nonlinear Dynamics and Econometrics, Federal Reserve Bank of Dallas
- Since 2019 Member of Scientific Committee: Workshop in Financial Econometrics, LEMNA, NANTES
- Since 2018 Member of the Scientific Committee of 10th French Econometrics Conference, Paris School of Economics & Paris 1 University

- Since 2018 Member of the Scientific Committee of IEEE Conference on Technology Management, Operations and Decisions, Casablanca, Morocco
- 2015 Member of the Scientific Committee of Symposium of the Society for Nonlinear Dynamics and Econometrics, BI Norway, March
- Since 2020 Member: OECD Network of Experts on Artificial Intelligence, OECD
- Since 2013 Ad-hoc reviewer for National Science Foundation, National Science Foundation, United States of America
- Since 2004 Reviewer for National Science Foundation (US)

SERVICE

- Since 2020 Elected Member of Faculty Senate, ESSEC Business School, France
- 2017 - 2017 Member of Search Committee for the new Dean & President, ESSEC Business School, France
- 2016 - 2016 Member of Evaluation Committee of Faculty, ESSEC Business School, France
- 2016 - 2018 Elected Member of the Board of Overseers, ESSEC Business School, France
- 2013 - 2016 Elected Member of Faculty Senate, ESSEC Business School, France
- 2010 - 2012 Elected to Evaluation Committee of Faculty, ESSEC Business School, France
- Since 2006 Member of Faculty recruitment group, ESSEC Business School, France
- 2006 - 2012 Member of various Teaching and Pedagogical Committees & Juries, ESSEC Business School, France