# Jean-Paul RENNE

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Birth: 1st July 1979 French nationality

Swiss permanent residence permit (C)

## **Professional Experience**

2021-	Co-Director of the Department of Economics – HEC Lausanne
2019-	Full professor – HEC Lausanne, Department of Economics
2015-2019	Assistant professor – HEC Lausanne, Department of Economics
2009-2015	Senior economist – Banque de France, Economics and finance research division
2007-2009	Head of reseach and strategy – French Treasury, Agence France Trésor (French DMO)
2005-2007	Economist – French Treasury, Growth policy division
2005	Internship – French Treasury, Agence France Trésor
2003-2004	Internship – Banque de France, Monetary policy research division
Spring 2002	Internship – European Central Bank, D.G. Economics service)

## Consultancies and academic collaborations

2021-2022	Consultancy for the European Central Bank.
2020-2021	Scientific consultancy for the Swiss State Secretariat for Economic Affairs.
2018-2019	Scientific consultancy for Banque de France.
2017-2019	Academic partnership with EDF R&D.
Autumn 2012	Consultancy for the OECD
Winter 2003	Consultancy for the European Central Bank

## Education

2009-2013	PhD in Applied Mathematics – Paris-Dauphine University
2004-2005	Master of Public Administration – École Nationale des Ponts and Chaussées
2002-2003	Master in Finance and Economics – École Nationale des Ponts and Chaussées
2000-2002	Bachelor in Economics and Applied Mathematics – École Polytechnique

#### Research papers

#### Refereed publications

18 Disastrous Defaults

with C. Gouriéroux, A. Monfort and Sarah Mouabbi. 2021, *Review of Finance*, vol. 25(6).

17 Affine Modelling of Credit Risk, Credit Event and Contagion

with A. Monfort, F. Pegoraro and G. Roussellet,

2021, Management Science, vol. 67(6).

16 Identification and Estimation in Non-fundamental Structural VARMA Models with C. Gouriéroux and A. Monfort,
2020, Review of Economic Studies, vol. 87(4).

15 Measuring Inflation Anchoring and Uncertainty: A US and Euro Area Comparison with O. Grishchenko and S. Mouabbi,
2019, Journal of Money, Credit and Banking, vol. 51(5).

National Natural Rates of Interest and the Single Monetary Policy in the Euro Area with S. Fries, J.-S. Mésonnier and S. Mouabbi,
 2018, Journal of Applied Econometrics, vol. 33(6).

 Staying at Zero with Affine Processes: an Application to Term Structure Modeling with A. Monfort, F. Pegoraro and G. Roussellet, 2017, *Journal of Econometrics*, vol. 201(2).

Statistical Inference for Independent Component Analysis: Application to Structural VAR Models with C. Gouriéroux and A. Monfort,
 2017, Journal of Econometrics, vol. 196(1).

11. A Model of the Euro-Area Yield Curve with Discrete Policy Rates 2017, Studies in Nonlinear Dynamics & Econometrics, vol. 21(1).

Credit, Liquidity and Interbank Rates: a Quadratic Framework with S. Dubecq, A. Monfort and G. Roussellet,
 2016, Journal of Banking & Finance, vol. 68.

9. A Tractable Interest Rate Model with Explicit Monetary Policy Rates 2016, *European Journal of Operational Research*, vol. 251(3).

A Quadratic Kalman Filter
 with A. Monfort and G. Roussellet,
 2015, Journal of Econometrics, vol. 187(1).

7. Decomposing Euro-Area Sovereign Spreads: Credit and Liquidity Risks

with A. Monfort,

2014, *Review of Finance*, vol. 18(6).

6. Pricing Default Events: Surprise, Exogeneity and Contagion

with C. Gouriéroux and A. Monfort,

2014, Journal of Econometrics, vol. 182(2).

5. Measuring Aggregate Risk: Can We Robustly Identify Asset-Price Boom-Bust Cycles?

with V. Borgy and L. Clerc,

2014, Journal of Banking & Finance, vol. 46.

4. Regime-Switching and Bond Pricing

with C. Gouriéroux, A. Monfort and F. Pegoraro,

2014, Journal of Financial Econometrics, vol. 12(2).

3. Default, Liquidity and Crises: an Econometric Framework

with A. Monfort,

2013, Journal of Financial Econometrics, vol. 11(2).

2. A Time-Varying Natural Rate of Interest for the Euro Area

with J.-S. Mésonnier,

2007, European Economic Review, vol. 51.

1. Réformes Fiscales dans un Modèle DSGE France en Economie Ouverte

with M. Coupet,

2008, Economie and Prévision, vol. 183-184.

#### **Book chapters**

• Compound Auto-Regressive Processes and Defaultable Bond Pricing

with A. Monfort,

2013, in *Developments in Macro-Finance Yield Curve Modeling*, J. S. Chadha, A.C.J. Durré, M.A.S. Joyce and L. Sarno eds, Cambridge University Press.

• House Price Boom-Bust Cycles

with V. Borgy and L. Clerc,

2010, in *Housing Markets in Europe. A macroeconomic perspective*. De Bandt, Knetch, Penalosa et Zollino, eds, Springer.

• Liability Management with Inflation-linked Products: The Cases of Sweden, France and Italy

with L. Horngren, E. Zetterstrom, D. Iacovini and N. Sagnes,

2008, Chap. 21, Inflation Risk and Products, Riskbooks.

#### Work in progress

- Climate Linkers: Rationale and Pricing with P. Chikhani.
- Taming Sovereign Debt: Can GDP-Linked Bonds do the Trick? with S. Mouabbi and J.-G. Sahuc.
- Fiscal Limits and Sovereign Credit Spreads with K. Pallara.
- Fiscal Limits and the Pricing of Eurobonds
   with K. Pallara, R&R at Management Science.
- Required Capital for Long-Run Risks with Christian Gouriéroux and Alain Monfort.

#### Working papers and institutional publications

- Understanding Swiss Real Interest Rates in a Financially Globalized World with Philippe Bacchetta and Kenza Benhima,
   2021, Staatssekretariat für Wirtschaft SECO Working Paper Nr. 25.
- Preventing COVID-19 Fatalities: State versus Federal Policies 2020, with G. Roussellet and G. Schwenkler, CEPR Covid Economics WP series, issue 56.
- The Effectiveness of Monetary Policy since the Onset of the Financial Crisis with R. Bouis, L. Rawdanowicz, S. Watanabe and A.-K. Christensen, 2013, OECD Economics Department Working Papers 1081.
- Fiscal Sustainability, Default Risk and Euro-Area Sovereign Bond Spreads with V. Borgy, T. Laubach and J.-S. Mésonnier,
   2011, Banque de France working paper series, NER No 352.
- Frequency-Domain Analysis of Debt Service in a Macro-Finance Model for the Euro Area 2009, Banque de France working paper series, NER No 261.
- Distinguishing Cyclical from Structural Components in French Unemployment 2007, Trésor Eco No 10 (also in *Economie and Prévision*, No 177).
- Effets de Long Terme de Variantes Fiscales dans une Maquette à Plusieurs Types de Travailleurs with M. Coupet,
   2007, Cahiers de la DGTPE, No 1.
- Does Uncertainty Make a Time-Varying Natural Rate of Interest Irrelevant for the Conduct of Monetary Policy?

with J.-S. Mésonnier,

2007, Banque de France working paper series, NER No 175.

 Caractéristiques des Marchés du Travail dans les Pays de l'OCDE with R. Bouis,
 2006, DPAE No 117 (also in Economie and Prévision, No 173).

- Règle de Taylor et Politique Monétaire dans la Zone Euro with J.-S. Mésonnier,
  2004, Banque de France working paper series, NER No 117.
- Is Economic Activity in the G7 Synchronized? Common Shocks versus Spillover Effects with A. Monfort, R. RÃŒffer and G. Vitale,
   2003, CEPR Discussion Paper, DP4119.

#### Presentations in seminars and conferences

Paris School of Economics seminar, World Bank's Finance, Competitiveness & Innovation Global Practice informal seminar, 15th Financial Risks International Forum, Institute for Capacity Development of the IMF seminar, Virtual Seminar in Climate Economics, 2022 SciencesPo Summer workshop on sustainable finance, annual meeting of the Society for Financial Econometrics, Seminars at SciencesPo (scheduled), Banca d'Italia 3rd Research Workshop on Long-term investors' trends (scheduled).

Auckland University of Technology Derivative Markets Conference 2021, European meeting of the Econometric Society, LUISS seminar, annual meeting of the Society for Financial Econometrics, spring meeting of the French Finance Association, the 14th Financial Risks International Forum, North American Summer Meeting of the Econometric Society, ACPR semiar, Tiefzinsumfeld & Investitionen SECO workshop, brownbag seminar of the Fed Board research group on Climate-related Risks, the Economy, and financial STability (CREST), 7th annual meeting of the Volatility Institute Conference at NYU Shanghai, CEPR-BdF meeting on Monetary Policy, Fiscal Policy and Public Debt in a Post COVID World.

Bank for International Settlements seminar, World Congress of the Econometric Society, HEC-Unisanté COVID Seminar, 2nd Italian Workshop of Econometrics and Empirical Economics.

CREST seminar, annual conference of the International Association for Applied Econometrics, University of York Asset Pricing Workshop 2018, annual meeting of the European Economic Association, European Summer Meeting of the Econometric Society, 7th Bank of Canada and Federal Reserve Bank of San Francisco Conference on Fixed Income Markets and Macro-Finance, 5th Melbourne Institute Macroeconomic Policy Meetings, French Finance Association (AFFI) annual meeting.

11th Financial Risks International Forum, Annual meeting of the Society for Financial Econometrics, University of York Asset Pricing Workshop 2018, Norges bank seminar, C.R.E.D.I.T. (Venice), McGill brownbag seminar, UQAM brownbag seminar, French Finance Association (AFFI) annual meeting, Federal Reserve Board internal seminar, European Central Bank internal seminar, Agence France Trésor, Conference on Advances in Applied Macro-Finance (Bilgi University).

2020

2019

2018

2017

Swiss National Bank research seminar, Paris-Dauphine University seminar, Bilkent ECON seminar, House of Finance days 2017, C.R.E.D.I.T. (Keynote speech, Venice), European meeting of the Econometric Society, Advances in Fixed Income and Macro-Finance Research (Bank of Canada, Fed of San Francisco and Simon Frasier U.), Annual Conference of the International Association for Applied Econometrics, Swiss Society of Economics and Statistics annual meeting, Mini-course on Macro-Finance modelling at Paris-Dauphine University, CIB-EPFL School on Dynamical Models in Finance.

2016

Inflation Targeting Seminar at the Central Bank of Brazil, Annual meeting of the Society for Financial Econometrics, European meeting of the Econometric Society, 9-hour mini-course on macro-finance for the Finance for Energy Market (FiME) research center, CREST financial econometrics seminar, Banca d'Italia seminar, French Finance Association (AFFI) annual meeting.

2015

HEC Lausanne seminar, 2nd ESSEC Empirical Finance workshop, 5th Bundesbank workshop on term-structure modelling, Annual Conference of the International Association for Applied Econometrics, 2nd workshop in Financial Markets and Nonlinear Dynamics, Aarhus University seminar, Risk committee of Autorité des Marchés Financiers, Université Catholique de Louvain seminar.

2014

Federal Reserve Bank of New York, Board of the Federal Reserve System, Bank of England, UK Debt Management Office, Université Paris-Dauphine, HEC Lausanne, EDHEC, Mines Paristech, TSE-IDEI Financial Econometrics Conference, Quant Europe – Risk conference, Paris Europlace Financial Forum, SoFiE-BdF-ACPR Conference on Systemic Risk and Financial Regulation, C.R.E.D.I.T. (Venice), French Finance Association (AFFI) annual meeting.

2013

Federal Reserve Bank of San Francisco workshop on the "Term Structure Modeling at the Zero Lower Bound", AFGAP/PRMIA conference on sovereign risk,  $7^{th}$  International Conference on Computational and Financial Econometrics,  $5^{th}$  Annual Volatility Conference at New York University Stern School, Paris Europlace Financial Forum, Annual meeting of the Society for Financial Econometrics,  $3^{rd}$  International Conference of the Financial Engineering and Banking Society (F.E.B.S), European meeting of the Econometric Society, European Economic Association, Banca d'Italia conference "The Sovereign Debt Crisis and the Euro Area", HEC Lausanne.

2012

C.R.E.D.I.T. (Venice), European meeting of the Econometric Society, Paris Europlace Financial Forum, French Finance Association (AFFI) annual meeting, Canadian Economic Association annual meeting, ECB workshop on "Excess liquidity and money-market functioning", seminars at French Ministry of Finance, Bank of Canada, UK debt management office, Bundesbank, European University Institute (Florence).

2011

Annual meeting of the Society for Financial Econometrics (Chicago), European meeting of the Econometric Society, IESEG-University of Cambridge conference on yield-curve modeling (University of Cambridge), Computational and Financial Econometrics (London), Paris Europlace Financial Forum, French Finance Association (AFFI) annual meeting, Bank of Finland Workshop on Frequency-domain analysis, ECB-BoE workshop on "Asset pricing models in the aftermath of the financial crisis", 4th French Econometrics Conference, EFFAS – European Bond Commission conference, seminars at Caisse des Dépôts and Consignations, CREST, ESSEC Risk working group.

2010	C.R.E.D.I.T. (Venice), Conference "Analytical Models for Sovereign Debt Manage-
	ment" (London), French Finance Association (AFFI) annual meeting.

## **Teaching**

2015-	University of Lausanne – $Macroeconometrics$ (Master), 56-hour course.
2015-	$\label{thm:constraint} \mbox{University of Lausanne} - \textit{Statistics and Econometrics II} \mbox{ (Bachelor)}, \mbox{ 56-hour course}.$
2019-2021	École Normale Supérieure (ENS) de Lyon – $Topics\ in\ Econometrics$ (Master), 12-hour course.
2014-2015	Université Paris-Dauphine – Interest-Rate and Credit Risks (Master), 18-hour course.
2013-2015	École Centrale Paris – Credit Risk (Master), 18-hour course.
2013-2015	Université Paris 7 – Credit Risk (Master), 18-hour course.
2009-2015	ENSTA – Applied econometrics (Master), 18-hour course.
2009-2014	ENSTA – Statistics (Master), 18-hour course.
2010-2013	${\it ENSAE-Macroprudential\ Analysis\ of\ Financial\ Institutions\ (Master),\ in\ collaboration\ with\ JS.\ M\'esonnier,\ 12-hour\ course.}$
2005-2008	ENPC (École Nationale des Ponts and Chaussées) – $Economics$ (Teaching assistant), 27-hour course.

## Short (PhD) courses

2019	Dynamic Pricing with Discrete Time Affine Processes, with Alain Monfort (SoFiE Financial Econometrics Schools)
2019	Identification of Structural Shocks, with Kenza Benhima (University of Lausanne)
2017	Affine Processes in Asset Pricing Models (EPFL Bernoulli center)
2017	Analysing Long-Term Macro-Finance Risks with Affine Models (Université Paris-Dauphine)
2016	Macro-financial models for long-term asset returns (Institut Henri Poincaré)

#### Referee

Journal of Finance (3), Review of Finance (4), Review of Economics and Statistics (1), Journal of International Economics (1), Journal of Banking & Finance (10), Journal of Econometrics (1), Econometric Theory (1), Management Science (1), Mathematical Finance (1), Journal of Financial Econometrics (6), European Journal of Operational Research (13), Journal of Money, Credit and Banking (3), Journal of Business and Economic Statistics (4), Journal of Macroeconomics (1), Journal of Applied Econometrics (3), Journal

of Economic Dynamics & Control (2), International Journal of Forecasting (1), European Economic Review (4), Annals of Economics and Statistics (2), la Revue économique (2), Review of World Economics (1), Economics Letters (1), Recherches économiques de Louvain (1), ECB working paper series (2), Bundesbank working paper series (1), International Economics (1), Bankers, Markets and Investors (1), Econometrics and Statistics (1), Swiss Journal of Economics and Statistics (2), Stata (1), Economic Policy (1), Applied Economics (1), Studies in Nonlinear Dynamics and Econometrics (1), Financial Analysts Journal (2), European Journal of Finance (1), Journal of Economic Geography (1), Revue d'Économie Financière (1), Macroeconomic Dynamic (1), Journal of Asset Management (1), International Journal of Finance & Economics (2).

### Organisation of conferences

2020	Organisation Committee Member. CEPR / University of Lausanne / SNSF. "Public Debt and Sovereign Credit Risk" (Lausanne, 3-4 June 2020).
2015	Organisation Committee Member. Banque de France workshop. "Modelling of the term structure of interest rates and the zero-lower bound" (Paris, 19 June 2015).
2014	Organisation Committee Member. ACPR / Banque de France / SoFiE conference. "Systemic risk and financial regulation" (Paris, 3-4 July 2014).
2012	Organisation Committee Member. Banque de France / Sciences Po / CEPR conference. "The Economics of Sovereign Debt and Default" (Paris, 17-18 December 2012).

#### **Grants and Awards**

2018	Swiss National Science Foundation. Grant No 182293.
	Fiscal Limits and the Pricing of Sovereign Debt. CHF 173'952, 24 months.
2018	HEC Lausanne Best Teacher Award, Master in Economics.
2002	Prix d'option, Applied Mathematics, École Polytechnique.

#### Skills and competences

Scilab, GAUSS, R (& Rcpp), Matlab, Visual Basic, Troll, Eviews, Maple.

Information Systems

Reuters (PowerPlus), Bloomberg, Datastream.

Languages French (mother tongue), English (fluent).