

# **Curriculum Vitae**

Burkhard Raunig

Research Section  
Central Bank of Austria  
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Born 30.5.1967 in Villach, Austrian Citizen

## **Education**

Engineering, Technical Highschool Ferlach, 1981-1986

Study of Economics, University of Vienna, 1987-1994

Doctorate in Economics, University of Vienna, 1995-1998

## **Research Interests**

Applied Causal Inference, Empirical Banking, Economic Uncertainty, Empirical Finance, Financial Market Volatility, Applied Econometrics

## **Current Positions**

Central Bank of Austria, Research Section, since 2001

## **Past Positions**

European Central Bank, Senior Economist under the ESCB/IO Experts Programme in the Financial Research Division (DG Research), 1.4.2008-30.9.2008

Central Bank of Austria, Banking Supervision Division, 2000

Central Bank of Austria, Financial Markets Analysis Division, 1997-1999

University of Vienna, Assistant Professor at the Department of Economics, 1995-1997

## **Other Professional Activities**

### Past Memberships:

IBRN Network

Subgroup Transmission Channels of the Research Task Force of the Basel Committee on Banking Supervision

Subgroup Interaction of Market and Credit Risk of the Research Task Force of the Basel Committee on Banking Supervision

### Refereeing:

International Economics, Statistical Papers, Journal of Business and Economic Statistics, Economica, Empirica, Journal of Empirical Finance, International Review of Financial Analysis, Journal of International Money and Finance, German Economic Review, Frontiers in Finance and Economics, Asia-Pacific Journal of Accounting & Economics, Monetary Policy & the Economy, Focus on European Economic Integration

### Teaching:

Macroeconomics, 1995-1997

Empirical Economics, Industrial Organization, 1995-1997

## **Awards**

Young Economists Award by the Austrian Economic Association, 2002

EFMA GARP "Risk Management" Best Paper Award, 2017

## Publications

### Refereed Articles

Assessing the Solvency of Virtual Asset Service Providers: Are Current Standards Sufficient? (with Pietro Saggese, Esther Segalla, Michael Sigmund, Felix Zangerl, und Bernhard Haslhofer), *Applied Economics*, forthcoming.

The ECB Single Supervisory Mechanism: Any Effects on Bank Competition? (with Michael Sigmund), *SUERF Policy Brief*, 2024, No 789.

A View from Outside: Sovereign CDS Volatility as an Indicator of Economic Uncertainty (with Maximilian Böck and Martin Feldkircher), *Macroeconomic Dynamics*, forthcoming.

Using Causal Graphs to Test for the Direction of Instantaneous Causality Between Economic Policy Uncertainty and Stock Market Volatility, *Empirical Economics*, 65, 2023, 1579–1598.

Sovereign CDS Volatility as an Indicator of Economic Uncertainty (with Maximilian Böck and Martin Feldkircher), *SUERF Policy Brief*, 2021, No 180.

Background Indicators, *Econometrics*, 7(2), 2019, 20.

A Primer on Peer-to-Peer Lending: Immediate Financial Intermediation in Practice (with Wolfgang Pointner), *Monetary Policy & The Economy*, Q3/2018, 36-51.

Stop Breaking Down: A Graphical Analysis of Proxy Variable and Instrumental Variable Solutions to Omitted Variable Problems, *Economics Bulletin*, 37(3), 2017, P.A.180.

On the Interpretation of Instrumental Variables in the Presence of Specification Errors: A Causal Comment, *Econometrics*, 5(3), 2017, 31.

Do Banks Lend Less in Uncertain Times? (with Johann Scharler and Friedrich Sindermann), *Economica*, 84, 2017, 682-711.

Unsicherheit und die Kreditvergabe durch Banken: Empirische Evidenz, *Wirtschaftspolitische Blätter*, 4/2015, 711-720.

Firm Credit Risk in Normal Times and during the Crisis: Are Banks Less Risky? *Applied Economics*, 47(24), 2015, 2455-2469.

Dämpft hohe Unsicherheit die Kreditvergabe durch Banken? (with Johann Scharler and Friedrich Sindermann), *Ökonomenstimme* 20. Oct. 2014.

<http://www.oekonomenstimme.org/artikel/2014/10/daempft-hohe-unsicherheit-die-kreditvergabe-durch-banken/>

Financial Markets and Real Economic Activity, *Monetary Policy & The Economy* Q4/2012, 92-95.

A Value at Risk Analysis of Credit Default Swaps (with Martin Scheicher), *Journal of Risk*, 13(4), 2011, 3-29.

Stock Market Volatility and the Business Cycle (with Johann Scharler), *Monetary Policy & The Economy*, Q2/2010, 54-63.

Money Market Uncertainty and Retail Interest Rate Fluctuations: A Cross-Country Comparison (with Johann Scharler), *German Economic Review*, 10(2), 2009, 176-192.

Detecting ARCH Effects in Non-Gaussian Time Series, *Journal of Financial Econometrics*, 6(2), 2008, 271-289.

The Predictability of Exchange Rate Volatility, *Economics Letters*, 98(2), 2008, 220-228.

Are Economic Tracking Portfolios useful for Forecasting Output and Inflation in Austria? *Applied Financial Economics*, 17, 2007, 1043-1049.

The Longer-Horizon Predictability of German Stock Market Volatility, *International Journal of Forecasting*, 22(2), 2006, 363-372.

How well do Models of Stock Market Volatility Forecast at Longer Horizons, in *Forecasting Financial Markets: Theory and Applications*, Lodz University Press, 2005, 71-83.

Evaluating Density Forecasts of Stock Market Returns (with Gabriela de Raaij), *European Journal of Finance*, 11(2), 2005, 151-166.

Evaluating VaR Models with Likelihood Ratio Tests: A Note (with Gabriela de Raaij), *Finance Letters*, 2(2), 2004, 16-19.

Backtesting of Density Forecasts (with Gabriela de Raaij), *Financial Market Stability Report*, 1, 2001, 117-128.

Heterogeneity within Industries and Structure Performance Models (with Dennis C. Mueller), *Review of Industrial Organization*, 15(4), 1999, 303-320.

### **Other Publications**

Beyond the Crisis: Economic Policy in a New Macroeconomic Environment – Summary of the 37th Economics Conference (with Ernest Gnan), *Monetary Policy & The Economy* Q2/2009, 126-141.

Human Capital and Economic Growth-Summary of the 35<sup>th</sup> Economics Conference of the Oesterreichische Nationalbank (with Juergen Janger), *Monetary Policy & The Economy*, Q3, 2007, 112-120.

Growth and Stability in the EU: Perspectives from the Lisbon Agenda-Results from the 32<sup>nd</sup> Economic Conference (with Sylvia Kaufmann and Helene Schuberth), *Monetary Policy & The Economy*, Q2, 2004, 100-108.

Financial Intermediation in Austria and Comparisons of Value at Risk Methods with Implications for Regulators (with Gabriela de Raaij and Walter Waschiczek), *Proceedings of the Central Bank Economists' Autumn Meeting*, Bank for International Settlements, Basel, Switzerland, 1998, 341-371.

Standardized Approach Audits (with various authors), *Guidelines on Market Risk*, Vol. 2, Central Bank of Austria, 1998.

Evaluation of Value at Risk Models (with various authors), *Guidelines on Market Risk*, Vol. 3, Central Bank of Austria, 1998.

### **Working Papers**

Watching over 21,000 Billion Euros: Does the ECB Single Supervisory Mechanism Affect Bank Competition in the Euro Area? (with Michael Sigmund), *OeNB Working Paper No 250*, 2023.

Assessing the Solvency of Virtual Asset Service Providers: Are Current Standards Sufficient? (with Pietro Saggese, Esther Segalla, Michael Sigmund, Felix Zangerl, and Bernhard Haslhofer), *OeNB Working Paper No 248*, 2023.

The ECB Single Supervisory Mechanism: Effects on Bank Performance and Capital Requirements, (with Michael Sigmund), *OeNB Working Paper No 244*, 2022.

Economic Policy Uncertainty and Stock Market Volatility: A Causality Check, *OeNB Working Paper No 234*, 2021.

A View from Outside: Sovereign CDS Volatility as an Indicator of Economic Uncertainty (with Maximilian Böck and Martin Feldkircher), *OeNB Working Paper No 233*, 2021.

Economic Policy Uncertainty and the Volatility of Sovereign CDS Spreads, *OeNB Working Paper No 219*, 2018.

Background Indicators, *OeNB Working Paper No 204*, 2016.

Do Banks Lend Less in Uncertain Times (with Johann Scharler and Friedrich Sindermann), Faculty of Economics and Statistics of the University of Innsbruck *Working Paper No 6*, 2014 and *OeNB Working Paper No 194*, 2014.

Stock Market Volatility, Consumption and Investment; An Evaluation of the Uncertainty Hypothesis Using Post-War U.S. Data (with Johann Scharler), *OeNB Working Paper No 163*, 2011.

Are Banks Different? Evidence from the CDS Market (with Martin Scheicher), *OeNB Working Paper No 152*, 2009.

A Value at Risk Analysis of Credit Default Swaps (with Martin Scheicher), *European Central Bank Working Paper Series No 968*, November 2008.

A Value at Risk Analysis of Credit Default Swaps (with Martin Scheicher), *Bundesbank Working Paper*, Discussion Paper Series 2: Banking and Financial Studies No 12/2008.

Money Market Uncertainty and Retail Interest Rate Fluctuations: A Cross-Country Comparison (with Johann Scharler), *Working Paper No 0704*, Department of Economics Johannes Kepler University of Linz, 2007.

Testing for Longer Horizon Predictability of Return Volatility with an Application to the German DAX, *OeNB Working Paper No 86*, 2003.

Evaluating Density Forecasts with Application to Stock Market Returns (with Gabriela de Raaij), *OeNB Working Paper No 59*, 2002, appears also as *Bundesbank Working Paper No 8*, 2002.

Heterogeneities within Industries and Structure Performance Models (with Dennis C. Mueller), *OeNB Working Paper No 36*, 1998.

### **Presentations at Conferences and Workshops**

23<sup>rd</sup> Annual Conference of the European Association for Research in Industrial Economics (EARIE), Vienna, Austria, 1996

Central Bank Economists' Autumn Meeting 1998, BIS, Basel, Switzerland, 1998  
8<sup>th</sup> Symposium on Finance, Banking and Insurance, Technical University of Karlsruhe, Germany, 1999

22<sup>nd</sup> SUERF Colloquium, Vienna, Austria, 2000

Quantitative Methods in Finance and Bernoulli Society Conference, Sydney, Australia, 2000

Third International Conference on Money, Investment and Risk, Nottingham, GB, 2001

Fed Cleveland, Cleveland, USA, 2002

International Symposium on Forecasting (ISF), Dublin, Ireland, 2002

Econometric Study Group, Annual Conference, Bristol, UK, 2002

ERC/METU International Conference in Economics VI, Ankara, Turkey, 2002

9<sup>th</sup> Symposium on Finance, Banking and Insurance, Technical University of Karlsruhe, Germany, 2002

International Conference on Forecasting Financial Markets, Paris, 2003

European Financial Management Association, Annual Conference, Helsinki, 2003

10<sup>th</sup> Global Finance Conference, Frankfurt, 2003

ISINI, Lille, France, 2003

WEA, Denver, USA, 2003

Workshop Econometric Time Series Analysis Methods and Applications, Linz, Austria, 2003

SNB, Buba, OeNB Workshop, Zuerich, Switzerland, 2004

IHS Finance Seminar, Vienna, Austria, 2004

Conference on Forecasting Financial Markets and Economic Decision Making, Lodz, Poland, 2004

Forecasting Financial Markets Conference, Paris, France, 2004

EFMA Conference, Basel, Switzerland, 2004

IAEC, London, UK, 2005

Sveriges Riksbank-OeNB Workshop, Stockholm, Sweden, 2005

NOeG, Innsbruck, Austria, 2005

Forecasting Financial Markets Conference, Marseille, France, 2005

Buba, SNB, OeNB Workshop, Vienna, Austria, 2005

Global Finance Conference, Dublin Ireland, 2005

IAEC, New York, USA, 2005

NOeG, Klagenfurt, Austria, 2007

EEFS Conference, Sofia, Bulgaria, 2007

SNB, Buba, OeNB Workshop, Zuerich, Switzerland, 2007

ISF, New York, USA, 2007

Interaction of Market and Credit Risk, Berlin, Germany, 2007

SNB, Buba, OeNB Workshop, Eltville, Germany, 2009

NOeG, Linz, Austria, 2009

EEFS, Warsaw, Poland, 2009

SUERF, Utrecht, Netherlands, 2009

65th East Jour Fix, Vienna, Austria, 2009

MFA, New Orleans, USA, 2012

Multinational Finance Conference, Krakow, Poland, 2012

EFMA Conference, Barcelona, Spain, 2012

NOeG, Vienna, Austria, 2014

Nordic Econometric Meeting, Helsinki, Finland 2015

SNB, Buba, OeNB Workshop, Vienna, Austria, 2015

Fordham Conference on Banking and Finance, Portsmouth, UK, 2016

SNB, Buba, OeNB Workshop, Frankfurt, Germany, 2016

21th EBES Conference, Budapest, Hungary, January, 2017

24th Annual MFS Conference, Bucharest, Romania, June, 2017

EFMA Annual Meetings, Athens, Greece, June 2017

NOeG, Vienna, Austria, 2018

FEBS International Meeting, Rome, Italy, June 2018

INFINITI Conference on International Finance, Poznan, Poland, June 2018

Global Finance Conference, Paris, France, July 2018

NOeG, Vienna, Austria, 2020

NOeG, Vienna, Austria, 2022



NOeG, Salzburg, Austria, 2023

ECB Banking Supervision Research Conference, Frankfurt, Germany, 2024