

Paweł Fiedor

New Wapping Street • North Wall Quay • Dublin 1
(353) 1 224 6277 • Pawel.Fiedor@centralbank.ie

Vocational Experience

- **Market Based Finance, Central Bank of Ireland** **Dublin, Ireland**
01/2018 – ongoing
Senior Economist
 - Development of risk monitoring for market based finance;
 - Research in market based finance, investment fund liquidity, central clearing;
 - International cooperation with FSB & ESRB on market based finance issues;
 - Member of the ESRB Joint Expert Group on Interconnectedness;
 - Preparing briefing notes for senior management on market based finance;
 - Mentoring junior staff.
 - **European Systemic Risk Board Secretariat, European Central Bank** **Frankfurt, Germany**
09/2017 – 11/2017
Research Analyst
 - Leading two research projects on the structure and incentives in central clearing of derivatives;
 - Leading the policy analysis of central clearing based on transaction-level data on derivative contracts;
 - Contributing to exploratory work on macroprudential tools for the insurance sector;
 - Drafting policy reports and research papers relevant to systemic risk analysis;
 - Performing analytical and technical work on risk indicators for central counterparties;
 - Advising and coordinating the ESRB input within the international work on system-wide stress testing;
 - Member of the EIOPA Project Group on Operationalisation of the Crisis and Management Handbook.
 - **European Systemic Risk Board Secretariat, European Central Bank** **Frankfurt, Germany**
09/2016 – 08/2017
PhD Trainee
 - Organisation and support of the work of the Advisory Scientific Committee;
 - Organisation and support of the work of the Insurance Expert Group;
 - Leading two research projects on the structure and incentives in central clearing of derivatives;
 - Leading the policy analysis of central clearing based on transaction-level data on derivative contracts;
 - Performing analytical and technical work on risk indicators for central counterparties;
 - Drafting policy reports and research papers relevant to systemic risk analysis;
 - Leading the editorial duties for the ESRB Working Paper Series;
 - Leading the analytical work determining liquidity of euro-denominated swap and bond markets;
 - Calculating clearing rates on behalf of the EU for the FSB's Review of OTC derivatives market reforms;
 - Member of the EIOPA Project Group on Operationalisation of the Crisis and Management Handbook.
 - **University of Cape Town** **Cape Town, South Africa**
07/2015 – 08/2016
Postdoctoral Research Fellow
 - Research in financial economics (structural models of the financial system with heterogeneous agents);
 - Development of scientific software packages for financial economics;
 - Mentoring PhD students.
 - **International Fund Services, State Street** **Kraków, Poland**
01/2011 – 06/2015
Associate, Hedge Fund Administration
 - Administration of a major US hedge fund (\$16bn NAV);
 - Liaising with multiple broker dealers to facilitate post-trade operations;
 - Conducting daily cash settlements and market value reconciliations including pricing;
 - Supporting external audits;
 - Training junior staff.
 - **Comarch S.A.** **Kraków, Poland**
07/2009 – 09/2009
Analyst, Internship
 - Leading the analysis of the public sector IT needs in Poland, including the 2009-2012 EU subsidies.
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Education

- **Cracow University of Economics** **Kraków, Poland**
PhD in Financial Economics 2011 – 2015
 - **Cracow University of Economics** **Kraków, Poland**
MSc in Econometrics 2005 – 2010
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Professional Associations

- **European Finance Association** **Member**
 - **Polish Economic Society** **Member**
 - **Royal Economic Society** **Member**
 - **IEEE** **Member**
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Reviewer / Referee

- **PLoS One** **Impact factor: 2.806**
 - **Journal of Banking and Finance** **Impact factor: 2.570**
 - **Physica A (Elsevier)** **Impact factor: 2.243**
 - **Sustainability (MDPI)** **Impact factor: 1.789**
 - **Entropy (MDPI)** **Impact factor: 1.743**
 - **Physics Letters A (Elsevier)** **Impact factor: 1.626**
 - **Complexity (Wiley)** **Impact factor: 1.333**
 - **Acta Physica Polonica A** **Impact factor: 0.604**
 - **Algorithmic Finance (IOPress)** **Impact factor: 0.500**
 - **South African Journal of Economics (Wiley)** **Impact factor: 0.286**
 - **Studies in Nonlinear Dynamics & Econometrics** **Impact factor: 0.276**
 - **Journal of Risk and Financial Management (MDPI)**
 - **Economic Research Southern Africa**
 - **Ekonomia (University of Warsaw)**
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Grants

- **Microsoft Azure Research Award CRM:0518970** **Microsoft**
Grant for computational agent-based modelling of financial systems for systemic risk analyses **USD 20,000**
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Work in progress

- Yanis El-Omari, Paweł Fiedor, Sarah Lapschies, Eric Schaanning, Moritz Seidel, Francesco Vacirca, *Interdependencies in central clearing in the EU derivatives markets.*
 - Emanuel Alfranseder, Paweł Fiedor, Sarah Lapschies, Pierre Marmara, Lucia Országhová, Paweł Sobolewski, *Assessing central counterparties in the EU – CCP indicators.*
 - Paweł Fiedor, *Clearinghouse-Five: Determinants of voluntary clearing in European derivatives markets.*
 - ESRB Insurance Expert Group, *Macroprudential instruments for Insurance.*
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Policy Publications

- ESRB, *Regulatory risk-free yield curve properties and macroprudential consequences*, ESRB Report, August 2017.
- Paweł Fiedor, Sarah Lapschies, Lucia Országhová, *Networks of counterparties in the centrally cleared EU-wide interest rate derivatives market*, ESRB Working Paper 54, September 2017.
- Paweł Fiedor, Sarah Lapschies, Lucia Országhová, *Networks of counterparties in the centrally cleared EU-wide interest rate derivatives market*, National Bank of Slovakia Working Paper 7, September 2017.

Peer-Reviewed Publications

• Journals

- P. Fiedor, *Structural Sustainability of the Polish Trade System*, Acta Physica Polonica A, 129(5), 1004-1007, 2016.
- P. Fiedor, *Partial Mutual Information Analysis of Financial Networks*, Acta Physica Polonica A, 127(3), 863-867, 2015.
- P. Fiedor, *Mutual Information-Based Hierarchies on Warsaw's Stock Exchange*, Acta Physica Polonica A, 127(3A), 33-37, 2015.
- P. Fiedor, *Multiscale Analysis of the Predictability of Stock Returns*, Risks, 3(2), 219-233, 2015.
- P. Fiedor, *Granger-Causal Non-Linear Financial Networks*, Journal of Network Theory in Finance, 1(2), 1-30, 2015.
- T. You, P. Fiedor, A. Hołda, *Network Analysis of the Shanghai Stock Exchange Based on Partial Mutual Information*, Journal of Risk & Financial Management, 8(2), 266-284, 2015.
- P. Fiedor, *Analysis of the Time Evolution of Non-Linear Financial Networks*, Acta Universitatis Lodzianis Folia Oeconomica 3 (314), 69-81, 2015.
- P. Fiedor, *The Social Dynamics of the Peter Principle*, Journal of Engineering Science and Technology Review 8(1), 56-60, 2015.
- P. Fiedor, *Networks in financial markets based on the mutual information rate*, Physical Review E 89, 052801, 2014.
- P. Fiedor, *Information-theoretic approach to lead-lag effect on financial markets*, European Physical Journal B 87 (8), 168, 2014.
- P. Fiedor, *Sector strength and efficiency on developed and emerging financial markets*, Physica A 413, 180-188, 2014.
- P. Fiedor, A. Hołda, *A firm's perspective on econophysics-based currency risk analysis*, Financial Sciences, 4(21), 92-107, 2014.
- P. Fiedor, *Financial Crises and the Future of the Real Economy*, Journal of Economics, Business and Management 2(2), 147-151, 2014.
- P. Fiedor, *Refutation of the Economic Constant Hypothesis*, Cracow Review of Economics and Management 920, 22-32, 2013.

• Book chapters

- P. Fiedor, *Noise-robustness of Networks in Financial Markets*, [in:] D. Kosiorowski, M. Snarska (eds.), KNOWLEDGE - ECONOMY - SOCIETY, Cracow University of Economics Foundation, 2016.
- P. Fiedor, *The Economics of Consulting for SME*, [in:] M. Ćwiklicki, M. Jabłoński & V. Potocan (eds.), Management Consulting for Business and Public Administration, Cracow University of Economics Foundation, 2012.
- P. Fiedor, *Taylor and 21st century consulting*, [in:] M. Ćwiklicki, M. Jabłoński & V. Potocan (eds.), Management Consulting for Business and Public Administration, Cracow University of Economics Foundation, 2012.

• Conference proceedings

- P. Fiedor, *Maximum Entropy Production Principle for Stock Returns*, Proceedings of the Computational Intelligence for Financial Engineering and Economics Conference 2015, pp. 695-702, London, 2015.
- P. Fiedor, *Frequency Effects on Predictability of Stock Returns*, Proceedings of the Computational Intelligence for Financial Engineering and Economics Conference 2014, pp. 247-254, London, 2014.
- P. Fiedor, *Job Evaluation for Knowledge-Based Organizations*, Proceedings of the 14th European Conference on Knowledge Management, pp. 860-867, Kaunas, 2013.

Invited Panellist

• ESMA

ESRB Workshop on the CPMI-IOSCO PDF Data and the ESRB CCP Risk Indicators

Paris, France
6th July 2017

Invited Talks

- **Faculty of Computer Science and Management, Wrocław University of Technology** **Wrocław, Poland**
Information-theoretic approach to stock returns predictability on WSE 10th March 2015
 - **Faculty of Management, Cracow University of Economics** **Kraków, Poland**
Econophysics-based maximum entropy principle for financial markets 13th November 2014
 - **Faculty of Physics, University of Warsaw** **Warsaw, Poland**
Asymmetry and nonlinearity in the network analysis of financial markets 25th February 2014
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Academic Conference Talks

- **15th International Conference CREDIT 2017** **Venice, Italy**
Networks of counterparties in the centrally cleared EU-wide interest rate derivatives market 28-29th September 2017
 - **2017 RiskLab/BoF/ESRB Conference on Systemic Risk Analytics** **Helsinki, Finland**
Networks of counterparties in the centrally cleared EU-wide interest rate derivatives market 28-30th June 2017
 - **INET Oxford-UCT workshop on Agent-Based Modelling for Systemic Stress Testing** **Oxford, UK**
Thoughts on System-Wide Stress Testing 9-10th March 2017
 - **Computational Intelligence for Financial Engineering and Economics Conference** **Cape Town, RSA**
Maximum Entropy Production Principle for Stock Returns 8-10th December 2015
 - **8th Symposium Physics in Economics and Social Science** **Rzeszów, Poland**
Structural Sustainability of the Polish Trade System 4-6th November 2015
 - **Financial Risk & Network Theory 2015** **Cambridge, UK**
Structural Sustainability of the Global Supply System 9th September 2015
 - **7th International Scientific Conference Faculty of Management CUE** **Kraków, Poland**
Noise-Robustness of Networks in Financial Markets 25th May 2015
 - **Multivariate Statistical Analysis MSA 2014** **Łódź, Poland**
Analysis of the Time Evolution of Non-Linear Financial Networks 18th November 2014
 - **7th Symposium Physics in Economics and Social Science** **Lublin, Poland**
Mutual information-based hierarchies on Warsaw's stock exchange 14th May 2014
 - **Computational Intelligence for Financial Engineering and Economics Conference** **London, UK**
Frequency Effects on Predictability of Stock Returns 27th March 2014
 - **2nd International Conference on Econophysics** **Kavala, Greece**
The Social Dynamics of the Peter Principle 13th September 2013
 - **14th European Conference on Knowledge Management - ECKM 2013** **Kaunas, Lithuania**
Job Evaluation for Knowledge-Based Organizations 6th September 2013
 - **3rd International Conference on Financial Management and Economics - ICFME 2013** **Barcelona, Spain**
Financial crises and the future of the real economy 10th August 2013
 - **II International Scientific Conference Towards Professional Consulting** **Kraków, Poland**
The Economics of Consulting for SME 18th October 2012
 - **II International Scientific Conference Towards Professional Consulting** **Kraków, Poland**
F. Taylor and 21st century consulting 18th October 2012
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Languages

- **Polish** **Native**
 - **English** **Business English, C2 (CPE)**
 - **German** **B2**
 - **French** **B1**
 - **Mandarin** **A2**
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Core Technical Skills

- **Operation Systems** Windows, Linux - advanced user-level
 - **Office software** \LaTeX , MS/Open Office, MS Project, MS Visio
 - **Statistical software** R, Matlab, Stata, Scipy
 - **Programming** C++, Python, Netlogo, SQL
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Scientific Software Developed

- **Black Rhino**
- **ABM template**

<https://github.com/cogeorg/blackrhino>
https://github.com/cogeorg/abm_template

References

- **Dr. Kitty Moloney**
- **Francesco Mazzaferro**
- **Prof. Dr. Co-Pierre Georg**
- **Prof. Dr. Artur Hołda**

Head of Market Based Finance, Central Bank of Ireland
Head of the European Systemic Risk Board Secretariat
Associate Professor, University of Cape Town
Professor, Cracow University of Economics
