Name: Jagoda Anna Kaszowska-Mojsa

Affiliations

1) **MSCA EF Individual Fellowship, University of Oxford (1 October 2021 – 30 September 2023)**
2) Senior Economist, Macroprudential Research Division, Financial Stability Department, National Bank of Poland
3) Postdoctoral researcher, Institute of Economics, Polish Academy of Sciences, Warsaw, Poland
4) Lecturer, Cracow University of Economics, Cracow, Poland

Main research areas

Central banking, monetary economics, financial stability, macroprudential policies, household and consumer finance, macro-modelling, agent-based modelling, simulation methods, Networks, stress-testing methods, multidimensional inequality, financial mathematics, complex systems, dynamical systems, public policy

Education

21.01.2019 **PhD in Economics (with highest honours)**, Cracow University of Economics, Cracow, Poland
Thesis: "The role of systemic risk in the origin, course and effects of financial crisis in the EU countries", prepared under the supervision of Prof. Dr. Hab. Andrzej Wojtyna (former Member of the Monetary Council at the National Bank of Poland)

18.12.2018 Public defence of the PhD thesis

23.12.2017 PhD thesis submitted at Cracow University of Economics, Cracow, Poland

04.01.2017-30.06.2017 **Fulbright Junior Advanced Research Award – visiting researcher** at Michigan State University (East Lansing, MI, USA) & courses at New England Complex Systems Institute, (Boston, MA, USA)

01.10.2012-30.09.2016 **PhD studies** at Cracow University of Economics, Poland
The programme covered Public and Corporate Finance, Macroeconomics, Microeconomics, Econometrics, Mathematics. All of the exams that were to be taken within three years were passed in two years, after which two years were devoted to carrying out research (National Science Centre's project).
Please note that the applicant finished her PhD studies and research (NCN's project) within 4 years, but she decided to submit her PhD dissertation after carrying out additional research in the United States (Fulbright scholarship). PhD thesis was under review from 23.12.2017 to 08.11.2018. The degree was formally awarded in January 2019 (Nomination to the Prime Minister Award in 2020; Award of the President of the Central Statistical Office for the outstanding doctoral dissertation in 2020).

01.10.2012-30.09.2016 **Master degree in Mathematics**, degree specialisation: Financial Mathematics, Jagiellonian University (Institute of Mathematics and Computer Science), Cracow, Poland.

15.09.2008-26.09.2011 **"Licenciatura en Economía"**, University of Alcalá, Madrid, Spain – five-year-long programme in Economics completed in three years with distinction.

01.10.2006-30.09.2009 **Bachelor's degree in Economics** from Cracow University of Economics, Cracow, Poland. (Final grade: very good)

Research and professional experience (projects, grants)

10.2021-10.2023 Marie Skłodowska-Curie Individual Fellowship, H2020-MSCA-IF-2020, grant no. 101023445
"Investigating new policies for financial stability that do not create inequality" (MACROPRU), funded by European Commission (Horizon 2020), **principal investigator** under the supervision of Prof. J. Doyne Farmer, to be implemented at the University of Oxford (Mathematical Institute/INET Oxford).

Since 01.10.2019 **Lecturer, Cracow University of Economics,** Cracow, Poland
Teaching: Macroeconomics, Applied Economics/Quantitative Methods.

Since 01.07.2018 **Researcher, Institute of Economics, Polish Academy of Sciences,** Warsaw, Poland
Projects: "Differentiation of innovation strategies of Polish manufacturing firms as an effect of changes in macroeconomic conditions" (**auxiliary investigator** under the supervision of Prof. Dr Hab. Anna Wziątek-Kubiak, which was funded by the National Science Centre, grant no. 2015/17/B/HS4/02742)
"Analysis of changes in prudential policies and regulation in Japan between 1990-2018" (MNiD grant for young researchers) (**principal investigator**)

07.01.2017-30.06.2017	**Researcher at Michigan State University**, East Lansing, MI, USA **Project:** "Systemic risk measurement and modelling" (**principal investigator** under the supervision of Prof. James M. Chen)
Since 23.12.2015	**Senior Economist, Macroprudential Research Division, Financial Stability Department, National Bank of Poland**, Warsaw, Poland 01.01-30.06.2017 unpaid leave at the National Bank of Poland to carry out research in the United States as a Fulbright scholar. **Projects:** "Assessment of the impact of macroprudential policies on the financial system" (**principal investigator** under the supervision of Prof. UEK Dr Hab. Mateusz Pipień) "Forecasting loans' quality" (**auxiliary investigator** – data scientist in the project of Prof. SGH Dr Hab. Dobromił Serwa) "Identification and synchronisation of business and financial cycles" – (**auxiliary investigator** in the project of Prof. UEK Dr Hab. Mateusz Pipień and Prof. UŁ Dr Hab. Piotr Wdowiński)
07.01.2015-23.12.2015	**Internship of the Governor of the National Bank of Poland Marek Belka**, Macroprudential Research Division, Financial Stability Department, Warsaw, Poland **Project:** "The use of experimental methods in systemic risk assessment" (**principal investigator**, under the supervision of Prof. UEK Dr Hab. Mateusz Pipień)
21.02.2014-20.02.2016	**Researcher, Cracow University of Economics**, Cracow, Poland **Project:** "Analysis of systemic risk in the EU countries after the crisis emergence. Implications for Poland" (**principal investigator**, under the supervision of Prof. Dr hab. Andrzej Wojtyna, in cooperation with Dr Juan L. Santos, funded by National Science Centre, grant no. 2013/09/N/HS4/03740)
2013	**Informal cooperation with Prof. F. Pablo-Martí and Dr J.L. Santos on the publications during realisation of the FP7 project** "MOSIPS: Modelling and Simulation of the Impact of Public Policies on SMEs" grant no. FP7/2007-2013 288833 at Institute for Economic and Social Analyses, Madrid, Spain.
15.07.2013-15.09.2013	**Internship (as a PhD student) at the Polish Embassy** in Madrid, Spain
02.07.2012-16.09.2012	**Internship in Research and Public Policy Department, Santander Bank**, Madrid, Spain **Project:** "Aggregate credit and non-performing loans under different macro scenarios" (student project under supervision of Dr G. de Cadenas Santiago)
01.07.2010-30.09.2010	**Internship in CB Richard Ellis**, Asset Management Department, Madrid, Spain

Awards and funding

02.2021	MSCA EF Individual Fellowship, European Commission, Horizon 2020 (grant no. 101023445), University of Oxford.
30.12.2020	The NAWA Bekker scholarship to carry out project at the University of Oxford.
30.03.2020	Nomination for the Prime Minister Award for the best doctoral dissertation in Poland (only a few researchers are nominated each year)
30.09.2020	The Central Statistical Office's Award for the best doctoral dissertation in statistics
21.03.2019-24.03.2019	Western Economic Association International funding to attend an Early Career Researcher Workshop in Tokyo.
21.01.2019	PhD with distinction, Cracow University of Economics
16.03.2016	Fulbright Junior Advanced Research Award (for PhD students) (2016/17)
07.01.2015-23.12.2015	National Bank of Poland funding (Internship of the Governor of the Polish Central Bank)
21.02.2014-20.02.2016	Funding from the National Science Centre (grant no. 2013/09/N/HS4/03740)
01.10.2012-30.09.2016	Scholarship for outstanding PhD students, Cracow University of Economics
23.02.2012	Award for the 2nd best academic result at the Dept. of Economics, University of Alcalá, Madrid, Spain (15.09.2008-26.09.2011)
15.09.2011-31.08.2012	Scholarship of the Centre for Financial and Monetary Studies
15.09.2008-30.10.2009	EMBS consortium scholarship for studies in Spain

01.10.2007-30.06.2009 Scholarship for outstanding students, Cracow University of Economics

4.05.2006 European Commission award for the Socrates Comenius project "Democrisis" (award for a consortium in which the applicant participated with other colleagues from her high school in Katowice)

Selected publications

The high quality of the researcher's publications is demonstrated by:

• metrics that exist to measure the quality of publications such as journal impact (all papers after the completion of the doctoral dissertation in 2019 have been published or accepted for publication in high impact journals, i.e. with impact factor > 2.49); all journals indexed in Scopus or Web of Science, books published/accepted by well-known publishers (Routledge - Taylor & Francis Group, Palgrave Macmillan),

• high altmetrics which are used to measure impact, commonly tracking media and social media mentions (very high number of new reads on ResearchGate, LinkedIn, journal webpages; high number of searches in Google)

• citations in specialized Polish (including central banking journal) and international journals (to mention a few: in the International Monetary Fund publications such as Anderson, R., Danielsson, J., Baba Ch., Das, U., Kang. H., Segoviano, M. (2018). Macroprudential Stress Tests and Policies: Searching for Robust and Implementable Frameworks; Alla, Z., Espinoza R., Li Q, Segoviano, M. (2018), Macroprudential Stress Tests: A Reduced-Form Approach to Quantifying Systemic Risk Losses; or in Sotnik, G. (2018). The SOSIEL Platform: Knowledge Based, Cognitive and multi-agent, Biologically Inspired Cognitive Architectures, 26, Elsevier).

• Kaszowska-Mojsa, J., Włodarczyk, P., Szymańska, A. (2022), Immunity in the ABM-DSGE Framework for Preventing and Controlling Epidemics—Validation of Results, Entropy, 24(1), IF = 2.524

• Kaszowska-Mojsa, J. (2021), Innovation strategies of Polish manufacturing companies through the business cycle, Ekonomista, 2(21).

• Kaszowska-Mojsa, J. (2020), Włodarczyk, P., To Freeze or Not to Freeze. Epidemic Prevention and Control in the DSGE Model Using an Agent-Based Epidemic Component, Entropy, 22(12), IF = 2.494.

• Kaszowska-Mojsa, J., Pipień, M. (2020). Macroprudential Policy in A Heterogeneous Environment - An Application of Agent-Based Approach in Systemic Risk Modelling, Entropy, 22(2), IF = 2.494.

• Kaszowska-Mojsa, J. (2020), Innovation Strategies of Manufacturing Companies during Expansions and Slowdowns, Entrepreneurial Business and Economics Review, 8(4).

• Kaszowska, J., Santos, J.L., Pablo-Martí, F. (May 2019). Assessment of policies using the 'core' and 'periphery' macroeconomic models in the post-crisis environment, Argumenta Oeconomica 1(42), IF = 0.3.

• Pipień, M., Wdowiński, P., Kaszowska, J. (2018). Identyfikacja cech cyklu finansowego i analiza jego synchronizacji z cyklem koniunkturalnym [Identification of financial cycle and its synchronisation with the business cycle], Materiały i Studia [National Bank of Poland Working Paper], no. 332.

• Santos, J.L., Kaszowska, J. (2018). Systemic risk: cause or effect of the financial crisis in the Euro Area? The Case of Spanish Banking System Bailouts, Olsztyn Economic Journal 13 (4/2018).

• Kaszowska, J., Santos, J.L. (2017). Rola percepcji ryzyka i niepewności w ocenie ryzyka systemowego. Podejście symulacyjne ABM. [The role of risk perception and uncertainty in systemic risk assessment], Ekonomista, no. 4.

• Pablo-Martí, F., Santos, J.L., Kaszowska, J. (2015), An Agent-Based model for population dynamics for the European regions, Emergence: Complexity and Organisation Journal, 17(2).

• Santos, J.L., Mancha, T., Kaszowska, J. (2014), Microsimulación de dinámicas urbanas y estrategias de localización empresarial. [Microsimulation of urban dynamics and strategies of firms' location], UAH.

• Kaszowska, J., Santos, J.L. (2014). The role of Risk Perception in the Systemic Risk Generation and Amplification: Agent-Based Approach, Spec. Issue ACRN Journal of Finance and Risk Perspectives, 3(4).

• Santos, J.L., Kaszowska, J., Mancha, T. (2017). An Agent-Based Model to Forecast the Inflation Rate in the Eurozone, [in:] Ianole, R., Applied Behavioral Economics Research and Trends.

Additional professional activities

Oral presentations:

19.01.2022 University of Oxford ("Agent-based macro modelling")

15-18.11.2021 47th MACROMODELS 2021, in person conference, Wieliczka 2021 ("Immunity in the ABM-DSGE Framework for Preventing and Controlling Epidemics—Validation of Results" & "Investigating new policies for financial stability that do not create inequality")

19-21.12.2020 CFE-CMStatistics 2020, virtual conference, London 2020 (“To Freeze or Not to Freeze. Epidemic Prevention and Control in the DSGE Model Using an Agent-Based Epidemic Component”)

25-26.11.2019 National Bank of Poland Workshop on Forecasting (“Loan quality forecasting” - “by invitation”)

27-28.06.2019 16th International Conference: Developments in Economic Theory and Policy, Bilbao, Spain (“Differentiation of innovation activities of the Polish manufacturing companies during economic expansion and slowdown”)

25-26.06.2019 2nd Workshop on Macroeconomic Research 2019, Cracow, Poland (“Assessment of welfare effects of macroprudential policies” – “by invitation”)

22.03.2019 15th International Conference, Western Economic Association International, Tokyo, Japan. (“The Use of Macroprudential Tools and Changes in Financial Regulation in Japan since 1990s.”)

21.03.2019 Early Career Researcher Workshop, Keio University, Tokyo, Japan. (“Macroprudential policies in Heterogeneous Environment – An Agent-Based Approach to Systemic Risk Modelling”) – the presentation was supervised by Dr Jinill Kim

28.06.2018 Symposium of Interdisciplinary Physics, Economics and Social Sciences, Faculty of Physics, University of Warsaw, Warsaw, Poland (“Calibration of macroprudential tools” – “by invitation”)

08.06.2018 The Society for the Study of Emerging Markets EuroConference, Łódź, Poland (“Macroprudential policies in Heterogeneous Environment”)

25-29.06.2017 92nd Annual Conference, Western Economic Association International, San Diego, CA, USA. (“Macroprudential Policies in DSGE and ABM Approaches”)

12.04.2017 Michigan State University Seminar, East Lansing, MI, USA (“Systemic Risk in Space and Time” – “by invitation”

23-25.03.2017 83rd International Atlantic Economic Conference, Berlin, Germany. (“Application of dynamic Bayesian networks to risk assessment on the OTC derivatives market in the European Union”; “Systemic risk and taxation”).

23.06.2016 Symposium of Interdisciplinary Physics, Economics and Social Sciences, Warsaw University of Technology, Warsaw, Poland (“Systemic risk assessment using ABM” – “by invitation”)

16-17.10.2015 Conference on Complex Scenarios, Amsterdam, Netherlands. (“Agent-based modelling foundation and validation”)

22-24.09.2014 FRAP 14: Finance, Risk and Accounting Perspectives, University of Oxford, UK (“The role of risk perception in the systemic risk generation and amplification”)

19.09.2014 Summer School on Complex Networks, Lucca, Italy (Flash-talk: “The role of perception of risk in the amplification mechanisms: ABM approach”).

06-04.08.2014 Business Research Conference, Imperial College, London, UK (“The role of risk perception in the systemic risk generation”)

Relevant courses:

19-23.11.2018 “Macroprudential tools”, Bank of England and Joint Vienna Institute-IMF, Vienna, Austria.

11.06.2017-16.06.2017 “Computer Programming and Complex Systems”, “Building Models and Mapping Networks”, New England Complex Systems Institute, Boston, MA, USA. At the end, we presented the results of the project: “Altering agents’ perception and behaviour” (Kaszowska, J., Tregonning, G., Jaimes, R.)

07-18.12.2015 “Course on External Vulnerabilities – Early Warning Exercise”, JVI-IMF, Vienna, Austria

12-15.02.2014 “Systemic risk and Prudential Policies”, Executive Course for Central Bankers, GSE, Barcelona.

Participation in conferences and seminars without a presentation:

10.2021-01.2022 12 seminars at INET & Mathematical Institute, University of Oxford (mostly Complexity Group meetings & INET seminars)

13.02.2017 Workshop on Complexity and Law (University of Michigan, Center for the Study of Complex Systems) (Lansing, MI, USA);

07-09.02.2017 Academic Research Colloquium for Financial Planning (Washington DC, US);

04.06.2015 INET Oxford Martin School – Seminar on “Bayesian inference in ergodic agent-based models” (University of Oxford, UK);

22-23.04.2015 “Risk and Stochastic Conference” at LSE and Royal Statistical Society (London, UK);

2015-2018	More than 30 seminars at the National Bank of Poland (lecturers inter alia Gadanecz (BIS); Nikolov (EBC); Moessner (BIS); Prasad (Cornell University); Dworczak (Stanford); Cincotti (University of Genoa); Hałaj (EBC), Russo (Università Politecnica delle Marche)).

Teaching and mentoring activities:

Lecturer at CUE. The applicant supervised master and bachelor students during her MsC and PhD studies. Mentored BA and MA/MSc students as a former Fulbright scholar in the Polish-US Alumni Association (including high school students in the Future Leaders Exchange Programme FLEX) and during internships for students at the National Bank of Poland (she encouraged students to participate in the mentoring programme TopMinds and in the Symposium of Physics, Economics and Social Sciences for young scholars).

Organisation of conferences, promotion of scientific research:

In 2017 she co-organised a session with Professor James M. Chen at the 83rd International Atlantic Economic Conference in Berlin, Germany ("The Cannons of Taxations").
She also attended a Fulbright Enrichment Seminar in Atlanta, GA, USA, where she participated in community service (in a public primary school) and meetings with scholars from around the world.
In 2018 she attended meetings with BA and MA/MSc students (Science Club on Macroeconomics) after being invited by Dr Jakub Janus.

In 2019 she helped to organise one of the sessions for young researchers (mostly BA and MSc students) during the Symposium of Interdisciplinary Physics, Economics and Social Sciences in Warsaw, Poland. She was invited to participate in a reception of K. Hassett, Chairman of Economic Advisors in US, in Warsaw, Poland by the Ambassador of the United States in Poland, G. Mosbacher in May 2019.

Additional activities:

Since 27.08.2018	Member of the Polish-US Alumni Association (as a former Fulbright scholar)
11.05.2015-31.12.2016	National Bank of Poland representative to the European Systemic Risk Board Joint ASC ATC Expert Group on Interconnectedness (JEGI), EBC, Frankfurt, Germany (inc. assessing projects on the EMIR derivatives' market)
2015-16	Member of the International Banking Research Network (led by C. Buch (Deutsche Bundesbank) and L. Goldberg (Federal Reserve Bank of New York)) after the meeting in Rome (25-26.06.2015)
2016-2017	Evaluated the research projects of the Brussel's think tank "Bruegel" (as a National Bank of Poland employee)
2014-2015	Member of the Complex System Society

Next steps

The MACROPRU project results will be presented/the project will promoted this summer in/during:

1. Perspektywy Women in Tech Summit, Warsaw, June 2022 (I was awarded the Excellence in AI Award)
2. Data-Driven Economic Agent-Based Models (DDEABM), Pisa, Italy, September 2022
3. 4th IMA Conference on The Mathematical Challenges of Big Data, University of Oxford, September 2022
4. 7th Lindau Meeting of the Laureates of the Sveriges Riksbank Prize in Economic Sciences, August 2022 (I was nominated by the European Commission)