

Curriculum Vitae: March 2020

| | |
|-----------------------------|---|
| Personal Information | Name: Prof. Dr. Alexander Ludwig Address: Chair of Public Finance and Debt Management Goethe University Frankfurt, House of Finance Theodor-W.-Adorno-Platz 3 60629 Frankfurt am Main (Germany) Email: mail[at]alexander-ludwig.com Phone: +49 (0)69 798-30036 www: https://alexander-ludwig.com/ Family status: Married, 4 children |
| Education | Dissertation, University of Mannheim, 2005 Doctoral Studies, Universitat Pompeu Fabra, Barcelona, 2004-2005 Doctoral Studies, MEA, University of Mannheim, 2001-2004 Diploma in Economics, University of Mannheim, 2001 Studies of Economics, University of Mannheim, 1997-2001 Studies of Economics, University of California at Berkeley (Ph.D. Program), 1999-2000 Studies of Business Administration, University of Mannheim, 1996-1997 Studies of Mathematics, University of Mannheim, 1995-1996 |
| Current Positions | Goethe University Frankfurt Professor for Public Finance and Debt Management, 2014 to present Universitat Autònoma de Barcelona Visiting Professor, 08/2019 to 08/2020 |
| Other Affiliations | Research Center LIF-SAFE, Goethe University Frankfurt Research Professor (since January 2020) Centre for Economic Policy Research (CEPR) Research Fellow (since December 2019) Human Capital and Economic Opportunity Global Working Group (HCEO): Markets Network Member (since March 2017) University of Cologne, Center for Macroeconomic Research (CMR), Germany Research Affiliate (since 2014) Munich Center for the Economics of Aging (MEA), Munich, Germany Senior Fellow (since 2011) Netspar, Tilburg, Netherlands Research Fellow (since 2008) Centre for European Economic Research (ZEW), Mannheim, Germany Research Associate (since 2012) |
| Past Positions | SAFE, Research Area Macro Finance – Monetary Policy and Fiscal Stability |

Program Director, 2015 to 12/2019

University of Cologne, Germany

Professor for Macroeconomics (W3), 2010-2014

University of Cologne, Germany

Professor for Macroeconomics (W2), 2009-2010

University of Mannheim, Germany

Head of Research Unit "Macroeconomics" and Assistant Professor, Mannheim Research Institute for the Economics of Aging (MEA), 2005-2009

Publications in Scientific Journals

- 2020** Should Germany Have Built a New Wall? Macroeconomic Lessons from the 2015-18 Refugee Wave (with Christopher Busch, Dirk Krueger, Irina Popova and Zainab Iftikhar), forthcoming in: *Journal of Monetary Economics*.
- 2019** Idiosyncratic Risk, Aggregate Risk, and the Welfare Effects of Social Security (with Daniel Harenberg), *International Economic Review*, 60(2), 661-692.
- 2018** Endogenous Grids in Higher Dimensions: Delaunay Interpolation and Hybrid Methods (with Matthias Schön), *Computational Economics*, 51(3), 463-492.
- 2017** Aging and Pension Reform: Extending the Retirement Age and Human Capital Formation (with Axel Börsch-Supan and Edgar Vogel), *Journal of Pension Economics and Finance*, 16(1), 81-107.
- 2016** A Life-Cycle Model with Ambiguous Survival Beliefs (with Max Groneck and Alex Zimper), *Journal of Economic Theory*, 162, 137-180.
- On the Optimal Provision of Social Insurance: Progressive Taxation versus Education Subsidies in General Equilibrium (with Dirk Krueger), *Journal of Monetary Economics*, Volume 77, 72-98.
- 2015** Social Security in an Analytically Tractable Overlapping Generations Model with Aggregate and Idiosyncratic Risk (with Daniel Harenberg), *International Tax and Public Finance*, 22 (4), 579-603.
- 2014** Aging in Europe: Reforms, International Diversification, and Behavioral Reactions (with Axel Börsch-Supan and Klaus Härtl), 2014, *American Economic Review P&P*, 104(5): 224-29.
- Biased Bayesian Learning and the Risk-free Rate Puzzle (with Alex Zimper), *Journal of Economic Dynamics and Control*, 39, 79-97, 2014.
- 2013** Optimal Progressive Labor Income Taxation and Education Subsidies When Education Decisions and Intergenerational Transfers are Endogenous (with Dirk Krueger), *American Economic Review P&P*, 103(3), 496-501, 2013.
- A Parsimonious Model of Subjective Life Expectancy (with Alex Zimper), *Theory and Decision*, 75(4), 519-541, 2013.

- A Decision-theoretic Model of Asset-price Underreaction and Overreaction to Dividend News (with Alex Zimper), *Annals of Finance*, 9, 625-665, 2013.
- 2012** Demographic Change, Human Capital and Welfare (with Thomas Schelkle and Edgar Vogel), *Review of Economic Dynamics*, 15(1), 94-107, 2012.
- 2010** Sharing Demographic Risk: Who is Afraid of the Baby Bust? (with Michael Reiter), *American Economic Journal: Economic Policy*, 2(4), 83-118, 2010.
- Mortality, Fertility, Education and Capital Accumulation in a Simple OLG Economy (with Edgar Vogel), *Journal of Population Economics*, 23(2), 703-735, 2010.
- 2009** On Attitude Polarization under Bayesian Learning with Non-additive Beliefs (with Alexander Zimper), *Journal of Risk and Uncertainty*, 39, 181–212, 2009.
- Living Standards in an Aging Germany: The Benefits of Reforms and the Costs of Resistance (with Axel Börsch-Supan), *Journal of Economics and Statistics*, 229(2+3), 163-179, 2009.
- Aging, Asset Markets, and Asset Returns: A View from Europe to Asia (with Axel Börsch-Supan), *Asian Economic Policy Review*, 4(1), 69-92, 2009.
- 2007** On the Consequences of Demographic Change for Rates of Return to Capital, and the Distribution of Wealth and Welfare (with Dirk Krüger), *Journal of Monetary Economics*, 54(1), 49-87, 2007.
- The Gauss-Seidel-Quasi-Newton Method: A Hybrid Algorithm for Solving Dynamic Economic Models, *Journal of Economic Dynamics and Control*, 31, 1610–1632, 2007.
- 2006** Investment Behavior under Ambiguity: The Case of Pessimistic Decision Makers (with A. Zimper), *Mathematical Social Sciences*, 52, 111-130, 2006.
- Aging, Pension Reform, and Capital Flows: A Multi-Country Simulation Model (with A. Börsch-Supan and J. Winter), *Economica*, 73, 625-658, 2006.
- Rational Expectations and Ambiguity: A Comment on Abel (2002) (with A. Zimper), *Economics Bulletin*, Vol. 4 no. 2, 1-15, 2006.
- 2004** The Relationship between Stock Prices, House Prices and Consumption in OECD Countries (with T. Sloek), *Topics in Macroeconomics*, 4(1), Article 4, 2004, <http://www.bepress.com/bejm/topics/vol4/iss1/art4>.
- Sind die Probleme der Bevölkerungsalterung durch eine höhere Geburtenrate lösbar? (with B. Berkel, A. Börsch-Supan and J. Winter), *Perspektiven der Wirtschaftspolitik*, 5(1), 71-90, 2004.
- 2003** Pension Reform, Capital Markets, and the Rate of Return (with A. Börsch-Supan, F. Heiss and J. Winter), *German Economic Review*, 4(2), 151-181, 2003.
- Policy Papers**

- 2016** Das Deutsche Rentensystem: Thesen zur derzeitigen Diskussion um „Umkehr“-Reformen in: SAFE White Paper No. 40

Demographischer Wandel: Kapitalrenditen, Löhne und Verteilungswirkungen In: Fugger, C., Hannappel, S., Hrsg. (2016): Demographischer Wandel - Fakten, Prognosen, Herausforderungen und Chancen, Sammelband zur Ringvorlesung im Wintersemester 2014/2015 an der Universität zu Köln

Monographs

- 2005** The Macroeconomics of Demographic Change - Essays on Economic Modelling, Dissertation, University of Mannheim, <http://bibserv7.bib.uni-mannheim.de/madoc/volltexte/2005/1093/>.
- 2003** Demographie und Kapitalmärkte: Die Auswirkungen der Bevölkerungsalterung auf Aktien-, Renten- und Immobilienvermögen (with A. Börsch-Supan and M. Sommer), Deutsches Institut für Altersvorsorge, DIA, 2003.
- 2002** Rentenreform im globalen Kontext, Peter Lang, Frankfurt, 2002

Other Publications

- 2013** Asset Market Meltdown in Sicht?, in: Michael Freytag (ed.), Verbrauchervielfalt: Chancen des demografischen Wandels für Konsum und Finanzen, 290 - 301, 2013.
- 2011** Old Europe is Aging: Reforms and Reform Backlashes (mit Axel Börsch-Supan), in: J. Shoven (ed.), Demography and the Economy. University of Chicago Press, 169 - 204, 2011.
- 2007** Demographic Change, Relative Factor Prices, International Capital Flows, and Their Differential Effects on the Welfare of Generations (with Dirk Krüger and Axel Börsch-Supan), NBER Working Paper 13185, 2007, forthcoming in: Brown, J., J. Liebmann and D. A. Wise (eds.): Social Security Policy in a Changing Environment, University of Chicago Press
- 2005** Demography, savings, and global capital markets (with A. Börsch-Supan and J. Winter), in: M. Heise and V. Wieland (eds.): Capital markets in the long term: Demography, economic development, and funded pension systems, Frankfurt, Center for Financial Studies, pp. 107-126, 2005.
- 2003** Ageing, the German rate of return and global capital markets (with A. Börsch-Supan and J. Winter), Demography Special, Deutsche Bank Research, December 4, 2003. German version available as: Alterung, deutsche Renditeentwicklung und globale Kapitalmärkte, Demografie Spezial Nr. 273, Deutsche Bank Research, June 16, 2003.
- 2002** Aging and international capital flows (with A. Börsch-Supan and J. Winter), in: A. Auerbach and H. Hermann (eds.): Aging, Financial Markets and Monetary Policy, Heidelberg: Springer, pp. 56-83, 2002.
- 1998** Case study: Vorsicht Falle: Investitionen in den neuen Bundesländern (with D. Guilini), in: A. Börsch-Supan and R. Schnabel: „Volkswirtschaft in fünfzehn Fällen“, Gabler Verlag, Wiesbaden, 1998.

Professional Activities

- Journal Activities Editorial Board Member, Journal of Pension Economics & Finance (since May 2013)
- Editorial Board Member, Journal of Demographic Economics (since November 2013)

Teaching Introduction to Economics (Bachelor); Economic Policy (Bachelor); Portfolio Choice and Asset Pricing (Master); Heterogeneous Agent Models (Master / Ph.D.); Aggregate Dynamic Macroeconomic Models: Methods and Applications (Master / Ph.D.); Computational Economics (Master / Ph.D.)

Ph.D. Supervision Main advisor:
 Fabian Becker (University of Cologne, 2019): “Essays on the Optimal Interplay of Early and Late Education Subsidies and Taxation”, Affiliation: tennisfarm.de
 Nils Grevenbrock (Goethe University Frankfurt, 2018): “Interactions of Social Insurance Systems”, Placement: European University Institute, Florence
 Christopher Busch (University of Cologne, 2017): “Essays on Individual Labor Income Dynamics”, Placement: Universitat Autònoma, Barcelona
 Matthias Schoen (University of Cologne, 2015): “Life Cycle Economics, Health, and Inequality”, Placement: Deutsche Bundesbank
 Christian Geppert (University of Frankfurt, 2015): “Macroeconomic Effects of Demographic Change: The Role of Human Capital”, Placement: OECD, Paris.

Second advisor:
 Leonhard Czerny (Goethe University Frankfurt, 2019): “Essays on Migration, Public Spending and Local Fiscal Multipliers”, Placement: Federal Ministry of Finance (Bundesministerium der Finanzen)
 Marco Weissler (Goethe University Frankfurt, 2019): “Essays in Labor Economics”, Placement: European Central Bank
 Klaus Härtl (TU München, 2019): “Fostering Sustainability in Times of Aging: Pension Policies and Household Behavior in a Macroeconomic Setting”, Placement: Deutsche Pfandbriefbank AG
 Ingo Saur (Goethe University Frankfurt, 2018): “The Influence of the Central Bank’s Assets on the Exchange Rate and the Price Level: Essays and Empirical Analyses”, Placement: Goethe University Frankfurt
 Bettina Brüggemann (University of Frankfurt, 2016): “Quantitative and Empirical Analyses of Macroeconomic Questions on Taxation and Labor Supply”, Placement: McMaster, Hamilton, Canada.
 Wolfgang Kuhle (University of Mannheim, 2010): “Intertemporal Allocation with Incomplete Markets”, Placement: Max Planck Institute for Research on Collective Goods, Bonn.
 Edgar Vogel (University of Mannheim, 2010): “Human Capital Investment and Population Dynamics”, Placement: European Central Bank, Frankfurt

Member of committee / external referee (w. written reports):
 Giacomo Caracciolo (Universitat Pompeu Fabra, 2019); Hayk Kamalyan (Goethe University Frankfurt, 2019); Andrea Papetti (Stockholm School of Economics, 2019); Peter Schober (Goethe University Frankfurt, 2019); Vu Nguyen (BI Norwegian Business School, 2017); Bo Zhao (University of Oslo, 2012); Aylit Romm (University of Capetown, 2011); Oliver Arentz (University of Cologne, 2010); Tomi Kortela (University of Turku, 2010); Moritz Kuhn (University of Mannheim, 2010)

Current supervision:
 Raphael Abiry (GU Frankfurt), Zhao Jin (GU Frankfurt), Osman Küçükşen (GU

Frankfurt), Irina Popova (GU Frankfurt), Jorge Quintana (GU Frankfurt), Nicolas Syrichas (GU Frankfurt, starting 01/2020)

Conference talks Conference series: Society for Economic Dynamics (SED) (2004, 2006, 2009, 2010, 2011, 2015, 2016, 2017); NBER Summer Institute (2013, 2018); European Economic Association (2004, 2006, 2015, 2018); European Econometric Society (2006, 2018); Society for Computational Economics (2002, 2003, 2005, 2006); The Royal Economic Society (2005); Verein für Socialpolitik (Annual Conference and Groups on Macro/Population Economics/Public Finance 2008,2011,2012, 2015, 2018); REDg Workshop (Barcelona 2015 Madrid 2018); Carnegie Rochester-NYU Conference on Public Policy (2006, 2015, 2019); SPP Workshop „Financial Frictions and the Real Economy” (Frankfurt 2015, Konstanz 2017, Mannheim 2018); SAET Conference on Current Trends in Economics (2009)

Others in 2019: Norface Workshop TRISP, IFS, London

Others in 2018: Norface Workshop TRISP, GU Frankfurt; Conference on Financing Human Capital, Paris; 40. Symposium des Instituts für Bank- und Finanzgeschichte e.V.: Asset Management und Asset Renditen in der Langfristperspektive, Frankfurt

Others in earlier years: Conference on Human Capital and Financial Frictions, Washington, D.C. (2017); Bank of Canada and ECB Conference, Frankfurt (2017); BGSE Summer School, Barcelona (2016); International Conference on Structural Reforms in Advanced Economies, Berlin (2016); CES-Ifo Conference on Macroeconomics and Survey Data, Munich (2015); Agents-Workshop, Barcelona (2015); 40 Years of Economic Science and Public Policy, Munich (2015); Optimal Control and Dynamic Games, Vienna (2015); SPP Workshop „Financial Frictions and the Real Economy”, Mannheim (2013); Rhineland-Workshop (2012); 32. Universitätsseminar „Dialog Wissenschaft und Praxis“ (2010, 2015); Overlapping Generations Days (2010, 2011); Workshop on Heterogeneous-Agent Models in Macroeconomics, Mannheim (2009); Workshop on Subjective Probabilities and Expectations, Jackson Hole, WY (2007); Workshop on Stochastic General Equilibrium Models and Pension Policies, Tilburg (2007); NBER Conference on Social Security Research, Woodstock, VT (October 2006); 12th Dubrovnik Economic Conference, Dubrovnik (June 2006); KDI 34th Anniversary International Conference: Population Aging in Korea: Economic Impacts and Policy Issues, Seoul (2005); ENTER Jamboree-Conference (2002, 2003, 2004); Modeller’s Forum, Helsinki (June 2001)

Seminar talks 2020: UAB, Barcelona; UB, Barcelona; Pompeu Fabra, Barcelona; University of Alicante

2019: EUI, Florence; University of Pretoria; Narodowy Bank Polski, Warsaw; Universitat Autònoma de Barcelona

2018: Universitat Autònoma de Barcelona (UAB); Humboldt University Berlin; University of Groningen; Uppsala University; University of Cologne; LMU Munich

2017: CERGEI, Prague; Tilburg University; EIEF, Rome; Centre for European Economic Research (ZEW), Mannheim; Sveriges Riksbank

Earlier years: St. Louis FED (2); TU Berlin; BI Norwegian Business School, Oslo; DIW, Berlin; University of Mannheim; University of Pretoria; University of Luxembourg; UC Louvain; Queen Mary London; Humboldt University Berlin; Stockholm School of Economics (2); University of Amsterdam and Tinbergen Institute (2); University of California at Berkeley (2); MIT, Boston; MEA, LMU, Munich; Royal Holloway, London; ETH, Zürich (2); University of St. Gallen; CESifo, Munich; University of Zürich (2); University of Mainz; University of Wits, Johannesburg; University of Bielefeld (3); University of Frankfurt (3); University of Konstanz; University of Augsburg; University of Bonn (2); University of Heidelberg (2); University of Oslo; Deutsche Bundesbank; University of California at Santa Barbara (2); University of Cologne (2); Institute for Advanced Studies and University of Vienna (3); University of Heidelberg (2); University of Würzburg; LMU, Munich (2); UPF, Barcelona (2); Vienna Institute of Demography, VID; CEPREMAP, Paris; Brookings Institution, Washington, D.C.; International Monetary Fund, Washington, D.C. (3); Pontificia Universidad Católica de Chile (2)

| | |
|----------------------------|---|
| Policy Talks | Federal Ministry for Economic Affairs and Energy, Berlin (2); Federal Ministry of Finance, Berlin; Alte Leipziger; Deutsche Bank; TU Darmstadt; House of Finance, Frankfurt; Sparkassenakademie; Dresdner Bank Alumni; University of Cologne; Deutsche Bundesbank; KfW; R+V Versicherungen |
| Research Visits | St. Louis FED (4); UCL London (2); National Bureau of Economic Research, NBER; University of Pennsylvania (6); Institute for Advanced Studies (3); University of Amsterdam; Universidad Pompeu Fabra (2); University of Pretoria (2); University of Cape Town; University of Wits; London Business School; Center for Economic Research and Its Applications, CEPREMAP |
| Referee | American Economic Review; Econometrica; Journal of Political Economy; American Economic Journal: Economic Policy; Review of Economic Studies; American Economic Journal: Macroeconomics; European Economic Review; Economic Journal; Econometrica; Empirical Economics; Economics Letters; Economic Theory; Finanzarchiv; International Economic Review; International Tax and Public Finance; Journal of Behavioral Economics; Journal of Economic Dynamics and Control; Journal of the European Economic Association; Journal of Institutional and Theoretical Economics; Journal of International Economics; Journal of International Money and Finance; Journal of Macroeconomics; Journal of Monetary Economics; Journal of Pension Economics and Finance; Journal of Population Economics; Macroeconomic Dynamics; Review of Economic Dynamics; The B.E. Journals in Macroeconomics; Oxford Economic Papers |
| Conferences (Organizer) | Financial Markets and Macroeconomic Performance (with Jan Krahn, Tom Krebs and Wouter den Haan, 2016, 2017, 2018, 2019); Cologne Workshop on Macroeconomics (2010, 2011, 2012, 2013, 2014); Overlapping Generation Models and Uncertainty - Theory, Policy Applications and Computation (with Dirk Krüger, December 2015); Workshop on Population Aging and International Capital Markets (with Barbara Berkel, Axel Börsch-Supan and Melanie Lührmann, December 2003) |

Honorary Activities Studienstiftung des deutschen Volkes (German National Merit Foundation)
Member of selection committee
Teaching: „Gesellschaftswissenschaftliches Kolleg der Studienstiftung -
Ordnungsmodelle für das 21. Jahrhundert“

Consulting Mitglied des Wissenschaftlichen Beirats, Alte Leipziger – Hallesche (Member of
the Council of Scientific Advisors, since July 2015)
Consultant of Deutsche Bundesbank (since 2017)

Offers (Rufe)

2017 ZEW and University of Mannheim (W3-Professor)

2013 Goethe University Frankfurt (W3-Professor)

2010 Ruprecht-Karls University Heidelberg (W3-Professor)

2008 University of Cologne (W2-Professor)

Grants

2018 – 2021 Project Leader, Norface, ERA-NET, Program: Dynamics of Inequality Across the
Life-Course (DIAL), Project: Trends in Inequality: Sources and Policy (TRISP)

2012 – 2018 DFG Grant, Principal Investigator, DFG Priority Program 1578: “Financial Market
Imperfections and Macroeconomic Performance”

2010 – 2011 Netspar Research Grant (with Max Groneck, CMR, University of Cologne and
Alexander Zimper, University of Pretoria)

2007 – 2008 2007 Steven H. Sandell Grant, Center for Retirement Research, Boston College
(with Alexander Zimper, University of Pretoria)

2003 – 2009 U.S. Social Security Administration (SSA), Grant #10-P-98363-1-05, National
Bureau of Economic Research (NBER), SSA Retirement Research Consortium (with
Axel Börsch-Supan)

2001 – 2003 “Auswirkungen des demographischen Wandels auf internationale
Kapitalströme”, VolkswagenStiftung (with B. Berkel, KfW, Frankfurt; A. Börsch-
Supan, and M. Lührmann, IFS, London)

Honors, Scholarships and Fellowships

2007 Publication Prize, Fontana Foundation, University of Mannheim

2004 – 2005 Marie-Curie-Scholarship, European Commission, for doctoral studies at the
Universitat Pompeu Fabra, Barcelona

- 2001 Prize, Karin-Islinger-Stiftung, University of Mannheim: Prize for outstanding scientific work in Economics and related sciences
- 1999 – 2000 Scholarship, Deutscher Akademischer Austauschdienst (German Academic Exchange Association) and McKinsey&Company, Inc., Düsseldorf
- 1998 – 2001 Fellowship, Studienstiftung des deutschen Volkes (German National Merit Foundation)