# **Tom Holden:** Curriculum Vitae


| | | |
|---|---|---|
| **Researcher, Deutsche Bundesbank** | **Born:** 13/04/1983 | **Married** |
| **DPhil in Economics, University of Oxford, 2013** | **Citizenship:** British | **Two children** |

**Web:** https://www.tholden.org/

**E-mail:** thomas.holden@gmail.com

**Phone:** (+44) 7815 067 305

**Post:**
Deutsche Bundesbank,
Wilhelm-Epstein-Strasse 14,
60431 Frankfurt am Main,
Germany


**Education:**

DPhil in Economics, University of Oxford, October 2008 – May 2013
*Title: "Three essays in dynamic macroeconomics." Advisor: Professor Simon Wren-Lewis*
MPhil in Economics, University of Oxford, October 2006 – September 2008
BA (Hons) in Mathematics and Philosophy, University of Oxford, October 2001 – September 2005

**Employment:**

| | |
|---|---|
| August 2018 – Now | Researcher (Subject Specialist), Research Department, Deutsche Bundesbank |
| August 2018 – July 2021 | Lecturer (Part Time), University of Surrey, Guildford |
| Sept. 2011 – July 2018 | Lecturer (Full Time), University of Surrey, Guildford |
| Oct. 2010 – July 2011 | Stipendiary Lecturer, Trinity College, Oxford |
| Oct. 2008 – Apr. 2010 | Co-founder, Treasurer, Director, Wikimedia UK (registered charity) |
| August 2005 – June 2006 | Programmer, EA Games, Criterion Studios, Guildford |

**Academic visits:**

| | |
|---|---|
| August 2015 – Feb. 2016 | University of Washington |

**Publications:**

"Existence and uniqueness of solutions to dynamic models with occasionally binding constraints." *Review of Economics and Statistics.* Forthcoming.
"Credit crunches from occasionally binding bank borrowing constraints." (With P. Levine and J. Swarbrick.) *Journal of Money, Credit and Banking.* 2020.
"Reconciling Jaimovich-Rebello Preferences, Habit in Consumption and Labour Supply."
(With P. Levine and J. Swarbrick.) *Economics Letters.* 2018.

**Recent working papers:**
"Computation of solutions to dynamic models with occasionally binding constraints."
*Reject and Resubmit, Quantitative Economics.*
"Robust real rate rules."
"Capital heterogeneity and investment prices: How much are investment prices declining?" (With Francois Gourio and Matthew Rognlie.)
"Quantifying the transmission of European sovereign default risk." (With Ana-Maria Dumitru.)
"Efficient simulation of DSGE models with occasionally binding constraints." (With Michael Paetz.)
*Revise and Resubmit, Journal of Economic Dynamics and Control (Lapsed).*
"Medium-frequency cycles in a stationary world."
"Business cycles in space." (With Jonathan Swarbrick.)

**Policy papers:**
"Universal Basic Income as a tool for tax and benefit reform."
*Social Liberal Forum Publication, Number 8, August 2017.*
*Also published in "Four go in search of big ideas", edited by Helen Flynn.*

**Refereeing:**
*Canadian Journal of Economics, CESifo Economic Studies, Econometrics, Economic Modelling*, European Economic Review, *German Economic Review, International Review of Economics & Finance*, Journal of Econometrics, Journal of Economic Dynamics and Control, Journal of International Economics, Journal of Political Economy, *Macroeconomic Dynamics, Oxford Commonwealth Law Journal, Oxford Economic Papers, Portuguese Economic Journal*, Review of Economics and Statistics, *Royal Economic Society Conference 2016-2017*

**Selected software packages:**
"DynareOBC": *Package for the simulation of models with occasionally binding constraints in Dynare, available from https://github.com/tholden/dynareOBC.*
"EST-NLSS": *Package for the estimation and smoothing of highly non-linear dynamic state-space models, available from https://github.com/tholden/EST-NLSS.*
"Custom Dynare": *Version of Dynare supporting other non-linear estimation methods, plus parallelism, available from https://github.com/tholden/dynare.*
"DynareRemoveLocalVariables": *A pre-preprocessor for Dynare that substitutes out model local variables, available from https://github.com/tholden/DynareRemoveLocalVariables.*
"DynareTransformationEngine": *Capable of automatically defining shock processes (including spatially correlated ones), transforming variables to more accurate forms and performing stochastic detrending, available from https://github.com/tholden/DynareTransformationEngine.*
"DoubleDouble": *Package for extended ("double double") precision computation, available from https://github.com/tholden/DoubleDouble.*

**Successful funding bids, consulting, academic awards and other achievements:**

| | |
|---|---|
| July 2016 | Granted EC Horizon 2020 bid (as Principal Investigator). Approximate value to U. of Surrey: £280,000. Details: http://www.monroeproject.eu/. |
| June 2016 | Invited to give a course to the Deutsche Bundesbank on occasionally binding constraints and related issues. |
| April 2016 | Invited to consult for the ECB on occasionally binding constraints, nonlinear estimation, and related issues. |
| December 2015 | Invited to give evidence to IMF and CFPB on computational tools for macroeconomics. |
| October 2014 | Invited to EC to give evidence on research and innovation in DSGE models. |
| February 2014 | Thesis runner-up for the Edgeworth Prize. |
| January 2014 | Granted EC FP7 bid (as CI), approximate value to U. of Surrey: £280,000. |
| January 2013 | Granted ESRC bid (as CI), approximate value to U. of Surrey: £600,000. |
| October 2011 | Max Weber Fellowship, European University Institute (declined). |
| October 2011 | Royal Economic Society Junior Fellowship (declined). |
| October 2010 | Stipendiary Lectureship, Trinity College Oxford. |
| April 2007 | 2007 International Econometric Games winning team member. |
| October 2006 | ESRC 2+2 award, with additional advanced quantitative training stipend. |
| October 2005 | EPSRC doctoral award for research in Analytic Topology (declined). |

**Presentations:**

| | |
|---|---|
| 2022 | T2M, Midwest Macro, ERMAS, Friendly Faces (Bundesbank/KC Fed) |
| 2020 | Bundesbank, World Congress of the Econometrica Society, EEA |
| 2019 | European Commission, U. of Lancaster, Bundesbank, Philadelphia Fed, SCE CEF, EEA, ESEM |
| 2018 | ASSA (Poster), Bundesbank, Bank of England, Central Bank of Latvia, ZEW, European Commission, SCE CEF, EEA, ESEM |
| 2017 | Durham, Netherlands' PBL, ERMAS, University of Surrey CIMS, ERCIM/CFE |
| 2016 | UBC, St. Louis Fed, ECB, Deutsche Bundesbank, T2M Bank of France, Bilkent U., TCD, Lancaster U., MACFINROBODS workshop National Bank of Belgium, SCE CEF, ESEM, WGEM ECB, Bank of Canada, U. of Glasgow, Dynare Conference: Bank of Italy, U. of St. Gallen |
| 2015 | U. of Washington, FRB, Dallas Fed, UT Austin, IMF, CFPB, Western Washington U., MACFINROBODS workshop City U., SCE CEF, U. of Surrey |
| 2014 | Nuffield NuMERIC conference, ESEM, EC Workshop: Research & Innovation in Applied Models of Growth for Policy-Making, Fall MWM, ERCIM/CFE, CIMS |
| 2013 | ESEM, EEA, SCE CEF, RES, City U., Birkbeck College |

| | |
|---|---|
| 2012 | ERCIM/CFE, Dynare Conference: Zurich, SCE CEF, Hamburg Workshop: Models of Expectation Formation, CIMS |
| 2011 | $13^{th}$ ZEW Summer Workshop for Young Economists, U. of Oxford, CMAIF, MWM, RES, 6th PhD Presentation Meeting of the RES |
| 2010 | XV Vigo Workshop on Dynamic Macroeconomics, U. of Birmingham, U. of Oxford, BMRC-QASS, Strasbourg Doctoral Workshop: Dynamic Macro |

**Teaching and supervision:**

| | |
|---|---|
| September 2017 | PhD Student Jonathan Swarbrick placed at the Bank of Canada. |
| September 2017 | Summer course on OBCs in DSGE models at the U. of Surrey. |
| June 2016 | Course on OBCs and related topics at the Deutsche Bundesbank. |
| Autumn 2014 | PhD mathematics lectures. |
| Summer 2014 to 2019 | Course leader for summer course in advanced macroeconomics at the U. of Surrey. Teaching courses on: Advanced MATLAB, Advanced Dynare, Non-linear Estimation. |
| Spring 2014 to 2018 | PhD macroeconomics lectures. |
| Summer 2012 and on | PhD and MSc supervision. Currently second supervisor to two PhD students. |
| Spring 2012, 2013 | Intermediate Microeconomics, University of Surrey, Guildford. |
| Autumn 2011 to 2017 | Industrial Organization, University of Surrey, Guildford. |
| 2008-2011 | $1^{st}$ & $2^{nd}$ year Macroeconomics and Quantitative Economics, Assorted Colleges, Oxford. |

**Referees (contact details available on request, or via a search engine):**

Professor Paul Levine (University of Surrey)
Professor Fabio Ghironi (University of Washington)
Professor Peter McAdam (Federal Reserve Bank of Kansas City)
Professor Robert Kollmann (ECARES)
Professor Guido Ascari (Oxford)