

# Tom Holden: Curriculum Vitae

**Researcher, Deutsche Bundesbank**

**Born:** 13/04/1983

**Married**

**DPhil in Economics, University of Oxford, 2013**

**Citizenship:** British

**Two children**

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## 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:**

"Robust real rate rules." *In submission.*

"Capital heterogeneity and investment prices: How much are investment prices declining?" (With Francois Gourio and Matthew Rognlie.)

"Computation of solutions to dynamic models with occasionally binding constraints."

*Reject and Resubmit, Quantitative Economics.*

"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 (in rough order of journal rank):**

Journal of Political Economy, Review of Economics and Statistics, Journal of International Economics, Journal of Econometrics, European Economic Review, Journal of Economic Dynamics and Control, Economic Modelling, Econometrics, Canadian Journal of Economics, Macroeconomic Dynamics, Oxford Economic Papers, International Review of Economics & Finance, German Economic Review, CESifo Economic Studies, Portuguese Economic Journal, Oxford Commonwealth Law Journal, 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: <a href="http://www.monroeproject.eu/">http://www.monroeproject.eu/</a> .
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:**

2023 (Forthcoming)	SF Fed/Bundesbank FF Workshop
2022	T2M, Midwest Macro, ERMAS, KC Fed/Bundesbank FF Workshop, Norges Bank workshop on "The Return of Inflation"
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 <sup>th</sup> 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 <sup>st</sup> & 2 <sup>nd</sup> year Macroeconomics and Quantitative Economics, Assorted Colleges, Oxford.

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

Professor Fabio Ghironi (University of Washington)  
Professor Robert Kollmann (ECARES)  
Dr Vivien Lewis (Deutsche Bundesbank)

Backups:	Professor Paul Levine (University of Surrey) Dr Jesper Lindé (IMF and Sveriges Riksbank) Professor Peter McAdam (Federal Reserve Bank of Kansas City)
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