

University of St Andrews

Department of Economics
Castlecliffe
The Scores
Fife KY16 9AR
UK

Curriculum Vitae
January 2017

Radoslaw (Radek) L. STEFANSKI

Personal Data

Mailing Address

Department of Economics
Castlecliffe
The Scores
Fife KY16 9AR
UK

Citizenship: Poland and South Africa

Telephone Numbers

Mobile: +44 7832 632106
Office: +44 (0) 1334 462451
E-mail: rls7@st-andrews.ac.uk
URL: <http://radekstefanski.weebly.com>

Major Fields of Concentration

Growth, Macroeconomics, Environmental, International Trade,

Current Academic Appointments

Sept. 2014- present Assistant Professor (Lecturer), Department of Economics, University of St Andrews
Sept. 2012- present External Research Associate, Oxford Centre for the Analysis of Resource Rich Economies, Department of Economics, University of Oxford

Education

| <i>Degree</i> | <i>Field</i> | <i>Institution</i> | <i>Year</i> |
|---------------|------------------------------------------------------------------|-------------------------|-------------|
| Ph.D. | Economics | University of Minnesota | 2009 |
| M.A. | Economics | University of Minnesota | 2006 |
| B.S. | Economics and Mathematics (with Honors, <i>summa cum laude</i>) | University of Richmond | 2004 |

References

Professor Timothy J. Kehoe

Department of Economics
University of Minnesota
4-101 Hanson Hall
1925 Fourth Street South
Minneapolis, MN 55455-0462
United States
Phone: +1 612 363-5096
e-mail: tkehoe@umn.edu

Professor Fabrizio Perri

Department of Economics
University of Minnesota
4-177 Hanson Hall
1925 Fourth Street South
Minneapolis, MN 55455-0462
United States
Phone: +1 612 625-7504
e-mail: fperri@umn.edu

Professor Anthony J. Venables

Department of Economics
University of Oxford
Manor Road Building
Manor Road
Oxford, OX1 3UQ
United Kingdom
Phone: +44 (1865) 271066
e-mail: tony.venables@economics.ox.ac.uk

Professor Rick van der Ploeg

Department of Economics
University of Oxford
Manor Road Building
Manor Road
Oxford, OX1 3UQ
United Kingdom
Phone: +44 (1865) 281285
e-mail: rick.vanderploeg@economics.ox.ac.uk

Dissertation

Title: Essays on Structural Transformation in International Economics
Dissertation Advisors: Professor Timothy Kehoe and Professor Fabrizio Perri

Past Academic Appointments

Aug. 2012- Sept. 2014 Assistant Professor, Department of Economics, Laval University
2009- 2012 Postdoctoral Research Fellow, Oxford Centre for the Analysis of Resource
Rich Economies, Department of Economics, University of Oxford.
2009-2012 Research Fellow, New College, University of Oxford.
Summer 2007 Research Intern, Research Department, IMF, Washington, DC.
2005 - 2007 Visiting Scholar, Research Department, Federal Reserve Bank of Minneapolis, MN.

Honors, Awards and Grants

2015 SIRE WWB Programme Grant, “Workshop on Structural Transformation” - with Alex
Trew (4831 GBP)
2015 Royal Economic Society Special Project Grant Scheme, “Workshop on Structural Trans-
formation” (5000 GBP)
2015 Travel Grant, SIRE (350 GBP)
2014 Travel Grant, SIRE (350 GBP)
2013 Laval University Research Grant (10,000 CAD)
2010 International Growth Center Research Award: “Harnessing Oil Revenues in Ghana”
(with Rick van der Ploeg), University of Oxford, UK. (35,728 GBP)
2008 Graduate Research Partnership Program Fellowship, University of Minnesota, Minneapo-
lis, Minnesota.
2008 Distinguished Instructor Award for Outstanding Teaching, Department of Economics,
University of Minnesota, Minneapolis, Minnesota.
2008 Travel Grant, two times, Department of Economics, University of Minnesota, Minneapo-
lis, Minnesota.
2006-2007 Graduate School Block Grant, University of Minnesota, Minneapolis, Minnesota.
2003-2004 Herman P. Thomas Scholarship for exceptional economics majors, University of Rich-
mond, Richmond, Virginia.
2003 Research Experiences for Undergraduates Grant, given by the National Science Founda-
tion, University of Richmond, Richmond, Virginia.
2002-2004 Phi Beta Kappa, Academic Honors Society, University of Richmond, Richmond, Virginia.
2000-2004 University Scholar, scholarship for outstanding undergraduate students, University of
Richmond, Richmond, Virginia.
2000-2004 International Student Scholarship, merit based scholarship for international students,
University of Richmond, Richmond, Virginia.

Teaching Experience

2014-present Lecturer, University of St Andrews, St Andrews, UK
Honors Econometrics, Honors Macroeconomics, Honors Growth and Development
2012-2014 Assistant Professor, Laval University, Quebec City, Quebec, Canada
Graduate Macroeconomics II, Graduate Growth and Fluctuations, Energy and
International Economics
2010-2012 Guest Lecturer, Oxford University Business Economics Programme, University of
Oxford, Oxford, UK.
2009-2012 Class Teacher, Dept. of Economics, University of Oxford
Graduate Macroeconomics.
2006-2009 Guest Lecturer, Dept. of Economics, University of Minnesota
Principles of Microeconomics.
2005-2009 Instructor, Department of Economics, University of Minnesota
Principles of Microeconomics, Principles of Macroeconomics, Growth Theory, Se-
nior Project Seminar, Undergraduate Writing in Economics.
2005-2009 TA, Department of Economics, University of Minnesota
Principles of Macro, Principles of Micro and Intermediate Micro.

Professional Activities

Referee for *American Economic Review*, *The B.E. Journal of Macroeconomics*, *Contemporary Economics*, *The Economic Journal*, *The Energy Journal*, *Economic Theory*, *Environmental and Resource Economics*, *Journal of African Economics*, *Journal of Development Economics*, *Journal of Economic Studies*, *Journal of Environmental Economics and Management*, *Journal of European Economic Association*, *Journal of International Economics*, *Journal of Monetary Economics*, *L'Actualite economique*, *Macroeconomic Dynamics*, *Oxford Economic Papers*, *Resource and Energy Economics*, *Review of Development Economics*, *Review of Economics Dynamics*, *Review of Economics Studies*, *Scandinavian Journal of Economics*, *Scottish Journal of Political Economy*, *Conflict Management and Peace Science*

Invited Presentations

- 2016 Norwegian School of Economics, Cardiff University, Ecole Polytechnique (Paris), Arizona State University (Structural Transformation Workshop)
- 2015 University of Nottingham, UNFCCC (IISD Side Event), Institute of Economic Affairs, University of Oxford - OxCarre (December)
- 2014 University of Edinburgh, University of St Andrews, University of Oxford, Central Bank of Chile
- 2013 University of Surrey, University of Calgary, Universite de Sherbrooke, Central Bank of Chile, Pontificia Universidad Catolica de Chile
- 2012 Arizona State University, Cambridge University, College of William and Mary, Dutch Central Bank, University of Laval, University of Montreal, University of Richmond, University of Surrey, Washington State University, ZEW Mannheim
- 2011 Warsaw School of Economics, University of the Basque Country, University of Amsterdam
- 2010 Delhi School of Economics, University of Southampton
- 2009 University of Oxford, University of Otago, Pitzer College, Indiana University (SE), University of Uppsala, École Polytechnique Fédérale de Lausanne, DIW DC
- 2008 Federal Reserve Bank of Minneapolis, IMF, La Pietra-Mondragone Workshop (reserve)

Conference Presentations

- 2017 CSAE Conference (forthcoming)
- 2016 Meetings of the Society For Economic Dynamics (Toulouse), VII Workshop on Institutions, Individual Behavior and Economic Outcomes (Alghero)
- 2015 Society for Nonlinear Dynamics and Econometrics, Royal Economic Society, Workshop on "Empirical Macroeconomics" (Norwegian Central Bank), Society for the Advancement of Economic Theory, St Andrews Workshop on Structural Transformation
- 2014 Monte Verita SURED, World Congress of Environmental and Resource Economists, North American Summer Meeting of the Econometric Society
- 2013 Canadian Economic Society Meetings, 53e Congres Annuel de la Societe Canadienne de Science Economique, Les Journees du CIRPEE 2013, Northeast Universities Development Consortium Conference at Harvard University, Fall 2013 Midwest Macro Meeting at the University of Minnesota
- 2012 CSAE Conference, Royal Economic Society Meetings, University of Yale Cowles Foundation Conference on Macroeconomics and Climate Change
- 2011 Midwest Macro Meetings, European Meetings of the Econometric Society
- 2010 Overlapping Generations Days, Monte Verita Conference on Sustainable Resource Use and Economic Dynamics, World Congress of Environmental and Resource Economists, Tsinghua Workshop in Macroeconomics, Macroeconomic Dynamics: Theory And Applications
- 2009 Society for Economic Dynamics, European Meetings of the Econometric Society, Tsinghua Workshop in Macroeconomics, Royal Economic Society Meetings
- 2008 North American Summer Meeting of the Econometrics Society, Washington University Third Annual Graduate Student Conference, Guanajuato Workshop in Macroeconomics, UNU WIDER Workshop (Rise of China and India), Warsaw International Economic Meetings
- 2004 Eastern Economic Assoc. Meeting, Meetings of the American Mathematical Assoc.

Outreach and Media

| | |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 June 2015 | Video Interview with IISD Reporting Service: GHG Emissions Reductions and Fossil-Fuel Subsidy Reform on <i>Dirty little secrets: Inferring fossil-fuel subsidies from patterns in emission intensities</i> |
| 23 January 2015 | The Economist: <i>Explaining a Shocking Stat</i> (Free Exchange Blog) on <i>Dirty little secrets: Inferring fossil-fuel subsidies from patterns in emission intensities</i> |
| 17 January 2015 | The Economist: <i>Seize the Day</i> on <i>Dirty little secrets: Inferring fossil-fuel subsidies from patterns in emission intensities</i> |
| 17 January 2015 | The Economist: <i>Pump Aligning</i> on <i>Dirty little secrets: Inferring fossil-fuel subsidies from patterns in emission intensities</i> |
| 17 January 2015 | Business Insider: <i>The Oil Crash Has Provided A Once-In-A-Generation Opportunity</i> on <i>Dirty little secrets: Inferring fossil-fuel subsidies from patterns in emission intensities</i> |
| 17 January 2015 | Business Insider: <i>Oil Price Plunge: SEIZE THE DAY!</i> on <i>Dirty little secrets: Inferring fossil-fuel subsidies from patterns in emission intensities</i> |
| 4 August 2014 | Handelsblatt: <i>Teuer, dreckig, ungerecht</i> (Expensive, dirty, unfair) by Malte Buhse |
| May 2014 | VOX Blog on <i>Dirty little secrets: Inferring fossil-fuel subsidies from patterns in emission intensities</i> |
| January 2012 | Africa at LSE Blog on <i>Harnessing Oil Revenues in Ghana</i> |
| September 2011 | Interview for China Business Network TV on <i>The impact of 9/11 on oil markets</i> |
| August 2011 | Oxford Sovereign Wealth Fund Blog on <i>Harnessing Oil Revenues in Ghana</i> |

Languages

English (native), German (fluent), Polish (native), French (good), Afrikaans (good), Spanish (working) Dutch (basic)

Publications

“Into the mire: A closer look at fossil fuel subsidies”

Calgary School of Public Policy SPP Research papers, 9(10) (2016).

“Government Size, Misallocation and the Resource Curse”

Rodrigo Caputo and Roberto Chang. eds., *Series on Central Banking, Analysis, and Economic Policies, 22 (2016), 197-232.*

“Windfalls, Structural Transformation and Specialization” (joint with Karlygash Kuralbayeva)

Journal of International Economics, 90 (2013), 273-301.

“Structural Transformation and the Oil Price”

Review of Economic Dynamics, 17(3) (2014), 458-504.

Working Papers

“Velocity in the Long Run: Money and Structural Transformation” (joint with Antonio Mele)

Revise and Resubmit, Review of Economic Dynamics

Monetary velocity declines as economies grow. We argue that this is due to the process of structural transformation - the shift of workers from agricultural to non-agricultural production associated with rising income. A calibrated, two-sector model of structural transformation with monetary and non-monetary trade accurately generates the long run monetary velocity of the US between 1869 and 2013 as well as the velocity of a panel of 92 countries between 1980 and 2010. Three lessons arise from our analysis: 1) Developments in agriculture, rather than nonagriculture, are key in driving monetary velocity; 2) Inflationary policies are disproportionately more costly in richer than in poorer countries; and 3) Nominal prices and inflation rates are not always and everywhere a monetary phenomenon: the composition of output influences money demand and hence the secular trends of price levels.

Working Papers Continued

“Dirty Little Secrets: Inferring Fossil-Fuel Subsidies from Patterns in Emission Intensities”

I develop a unique database of international fossil-fuel subsidies by examining country-specific patterns in carbon emission-to-GDP ratios, known as emission-intensities. For most - but not all - countries, intensities tend to be hump-shaped with income. I construct a model of structural-transformation that generates this hump-shaped intensity and then show that deviations from this pattern must be driven by distortions to sectoral-productivity and/or fossil-fuel prices. Finally, I use the calibrated model to measure these distortions for 170 countries for 1980-2010. This methodology reveals that fossil-fuel price-distortions are large, increasing and often hidden. Furthermore, they are major contributors to higher carbon-emissions and lower GDP.

“Boom goes the price: Giant resource discoveries and real exchange rate appreciation” (joint with Torfinn Harding and Gerhard Toews)

We estimate the effect of giant oil and gas discoveries on bilateral real exchange rates. The size and plausibly exogenous timing of such discoveries make them ideal for identifying the effects of an anticipated resource boom on prices. We find that a giant discovery with the value of a countrys GDP increases the real exchange rate by 14% within 10 years following the discovery. The appreciation is nearly exclusively driven by an appreciation of the prices of non-tradable goods. We show that these empirical results are qualitatively and quantitatively in line with a calibrated model with forward looking behaviour and Dutch disease dynamics.

“On the Mechanics of the Green Solow Model”

Brock and Taylor (2010) argue that the Environmental Kuznets Curve (EKC) is driven by falling GDP growth rates associated with a Solow type convergence. I test the importance of their mechanism by performing a “pollution accounting” exercise that decomposes emissions data into pollution intensity and GDP growth effects. The “Green Solow” framework assumes that emission intensities decline at a *constant* rate and hence that all changes in emissions growth rates are driven by changes in GDP growth rates. Yet, in the data, emission intensities are hump-shaped, implying *declining* emission intensity growth rates. Furthermore, this decline is up to an order of magnitude larger than changes in GDP growth. By assigning all the weight to GDP growth, the Green Solow model misses the largest driver of emissions. Models aiming to explain the EKC, should thus focus on explaining hump-shaped emission intensities and consequently falling emission intensity growth rates. I suggest a simple model of structural transformation as one possible mechanism capable of matching the facts.

“Harnessing Oil Revenues in Ghana” (joint with Rick van der Ploeg and Sam Wills)

Ghana has recently started producing oil from the offshore Jubilee field. This paper addresses the question of how Ghana should best harness these oil revenues. This is done in two sections. In the first, it considers whether Ghana should spend or save the windfall, comparing spending rules under a range of assumptions to the permanent income (PI) benchmark. On balance we find that Ghana should bring spending further forward than is suggested under PI, to promote development. In the second, it considers how the windfall should be used, comparing the alleviation of capital scarcity, accumulation of foreign assets and investment in domestic public capital to boost growth and development. We find that the problem of capital scarcity should be alleviated first if Ghana is facing a premium on borrowing costs. The remainder of the windfall should primarily be used to invest in domestic capital, but some funds may temporarily be parked in foreign assets if there are absorption constraints in the non-traded sectors.

Research in Progress and other Papers

“Short Sale Restrictions in the Oil Futures Market and Oil Price Volatility: Is Moral Hazard in Insurance Markets Causing Volatile Oil Prices? ”

“Structural Transformation and Transport”

“Real Analytic Functions and the Factorization of n-dimensional Polynomials”