

STUDENT ECONOMIC REVIEW 2016



UNIVERSITY OF DUBLIN
TRINITY COLLEGE

PRESIDENT

PROFESSOR JOHN O'HAGAN
DEPARTMENT OF ECONOMICS, TRINITY COLLEGE DUBLIN

PATRONS

DR TARA MITCHELL
DEPARTMENT OF ECONOMICS, TRINITY COLLEGE DUBLIN

DR RONAN LYONS
DEPARTMENT OF ECONOMICS, TRINITY COLLEGE DUBLIN

DR MICHAEL WYCHERLEY
DEPARTMENT OF ECONOMICS, TRINITY COLLEGE DUBLIN

Published by the Student Economic Review,
c/o Department of Economics, Trinity College, Dublin 2
Republic of Ireland.

All rights reserved.
Copyright © Contributors to the Student Economic Review 2016

All views expressed herein are those of the authors and do not necessarily reflect the
views of the editors or sponsors.

This journal claims no special rights or privileges.
All correspondence or complaints should be addressed to:

The Editor,
Student Economic Review,
c/o Department of Economics,
Trinity College,
Dublin 2,
Republic of Ireland.

Printed by O'Sullivan Print.

The SER Logo was created by Paul Kenny in 2003.

Photography by Gabriele Pierantoni, Anna Kylkilahti and Huda Awan.
Cover by Séamus O'Beirne

The Student Economic Review is also available online at
<http://www.tcd.ie/Economics/SER>

THE STUDENT ECONOMIC REVIEW WOULD LIKE TO
SINCERELY THANK ALL OF OUR SPONSORS FOR THEIR
CONTINUED SUPPORT



MAIN SPONSORS

MR HARRY HARTFORD

KEY CAPITAL

MR VINAY NAIR

SPONSORS

MR ALAN GRAY

MS AOIFE CUNNINGHAM

THE STUDENT ECONOMIC REVIEW COMMITTEE 2016

GENERAL MANAGER:	KATE HAYES
EDITOR:	GILLIAN O'CONNELL
ASSISTANT EDITOR/COPYEDITOR:	SARAH MCDOWELL
PRODUCTION MANAGER:	EMILY WATERS
LAUNCH MANAGER:	SWETHA SAMPATH
ASSISTANT LAUNCH MANAGER:	STEPHEN BARR
DEBATES MANAGER:	ANNABEL O'ROURKE
FINANCE MANAGER:	HUDA AWAN



Back Row (L to R): Sarah McDowell, Gillian O'Connell, Stephen Barr, Kate Hayes, Emily Waters
Front Row (L to R): Swetha Sampath, Annabel O'Rourke, Huda Awan

**PRIZE-WINNING ESSAYS OF THE
STUDENT ECONOMIC REVIEW 2016**

BEST OVERALL ESSAY: DERMOT McALEESE MEDAL

INTERGENERATIONAL SOCIAL MOBILITY IN BRITAIN: THE CURSE OF COAL

DANIEL FALLEN BAILEY

BEST APPLIED ECONOMICS ESSAY: DONAGH LYNCH MEDAL

**HOW SHALE FRACTURED THE OPEC OLIGOPOLY: A GAME THEORY ANALYSIS OF
THE OIL MARKET IN 2015**

RICHARD ROBERTS

BEST EUROPEAN ECONOMY ESSAY

**COMPETING AGAINST GERMANY: UNIT LABOUR COSTS IN THE EUROPEAN
MONETARY UNION**

JONAS PEISKER

EDITORS AND GENERAL MANAGERS OF THE STUDENT ECONOMIC REVIEW, 1987-2016

Year	Editor	General Manager
1987 (Vol. I)	John Fingleton	Paddy Waldron
1988 (Vol. II)	Kevin Carey	Finbar McDonnell
1989 (Vol. III)	Jonathan Wright	Joe Dennehy
1990 (Vol. IV)	Philip Lane	C.J. O'Neill
1991 (Vol. V)	Paul O'Connell	Billy Stamp
1992 (Vol. VI)	Alan White	Addo C. Barrows III
1993 (Vol. VII)	Gareth Davis	David Butler
1994 (Vol. VIII)	Alan Dunne	Donagh Lynch
1995 (Vol. IX)	Fergal Shortall	Myles H. Clarke
1996 (Vol. X)	Geoffrey Gill	Suzanne O'Neill
1997 (Vol. XI)	Sarah Rowell	Carol Newman
1998 (Vol. XII)	Richard Doyle	Charlotte Hess
1999 (Vol. XIII)	Michael McMahon	Niamh McDonagh
2000 (Vol. XIV)	Ana Carrie	Colette Murphy
2001 (Vol. XV)	Ronan Lyons	Charles Larkin

Year	Editor	General Manager
2002 (Vol. XVI)	Ivan McAdam	Janine Boyd-O'Connell
2003 (Vol. XVII)	Rowena Gray	Elaine Doyle
2004 (Vol. XVIII)	Denis Tkatchenko	Tara McIndoe
2005 (Vol. XIX)	Cormac O'Dea	Paul Sammon
2006 (Vol. XX)	Deirdre Reilly	Melinda Simonffy
2007 (Vol. XXI)	Niamh Crilly	Charlie Nolan
2008 (Vol. XXII)	Nathalie Ennis	Kieran Curtis
2009 (Vol. XXIII)	Jean Acheson	James Walsh
2010 (Vol. XXIV)	Jason Somerville	Amandine Lobelle
2011 (Vol. XXV)	Robert Farhat	Áine Ní Shúilleabháin
2012 (Vol. XXVI)	Tony O'Connor	Debbie Blair
2013 (Vol. XXVII)	Brian Higgins	Marielle Grigsby-Rocca
2014 (Vol. XXVIII)	Féidhlim McGowan	Cián McLeod
2015 (Vol. XXIX)	Gearóid Gibbs	Michael Mahony
2016 (Vol. XXX)	Gillian O'Connell	Kate Hayes

GUEST SPEAKERS AT THE LAUNCH OF THE STUDENT ECONOMIC REVIEW, 1990-2016

Year	Speaker	Organisation
1990 (Vol. IV)	Richard Lipsey	Simon Fraser University
1991 (Vol. V)	Charles Goodhart	London School of Economics
1992 (Vol. VI)	Peter Sinclair	Brasenose College, Oxford
1993 (Vol. VII)	David Greenway	Nottingham University
1994 (Vol. VIII)	Hamish McRae	The Independent, London
1995 (Vol. IX)	John Sutton	London School of Economics
1996 (Vol. X)	John Martin	OECD
1997 (Vol. XI)	Alan Tait	IMF
1998 (Vol. XII)	David O'Sullivan	European Commission
1999 (Vol. XIII)	Paula Donovan	World Bank
2000 (Vol. XIV)	Dermot McCarthy	Department of An Taoiseach
2001 (Vol. XV)	Donal Donovan	IMF
2002 (Vol. XVI)	Margaret Doyle	The Economist
2003 (Vol. XVII)	Tom Healy	Irish Stock Exchange

Year	Speaker	Organisation
2004 (Vol. XVIII)	Gerry Foley	ITV PLC.
2005 (Vol. XIX)	John Fingleton	Competition Authority
2006 (Vol. XX)	Marius Brühlhart	HEC University of Lausanne
2007 (Vol. XXI)	Cliff Taylor	Sunday Business Post
2008 (Vol. XXII)	Alan Barrett	ESRI
2009 (Vol. XXIII)	Patricia Callan	Small Firms Association
2010 (Vol. XXIV)	Jane Williams	Forfás
2011 (Vol. XXV)	Tom O'Mahony	Department of Transport
2012 (Vol. XXVI)	Kyran McStay	Key Capital Limited
2013 (Vol. XXVII)	Alan Gray	Indecon Economic Consulting Group
2014 (Vol. XXVIII)	Anke Heydenreich	Attestor Capital LLP
2015 (Vol. XXIX)	Declan Sheehan	JP Morgan
2016 (Vol. XXX)	Various Speakers	Past Committee Members

STUDENT ECONOMIC REVIEW DEBATES, 1996-2016

Year	Opposition	Topic	Victor
1996	U.C.D.	Third-Level Fees	Trinity
1998	U.C.D.	EMU Without Britain	Trinity
1999	Oxford	The Euro: The Way Forward?	Oxford
2002	Oxford	Boston or Berlin?	Trinity
2003	Cambridge	The Euro is a Success	Cambridge
2004	U.C.D.	Free Trade and Development	U.C.D.
2005	Oxford	Third World Debt	Trinity
2006	Cambridge	Common Agricultural Policy	Trinity
2007	Oxford	Environmental Responsibility	Trinity
2007	Yale	Boston or Berlin?	Trinity
2008	Harvard	Mass Emigration and Labour	Trinity
2008	Cambridge	Britain's Place in Europe	Cambridge
2009	Yale	Boston or Berlin?	Yale
2009	Oxford	Bank Nationalisation	Trinity
2010	Cambridge	Should Ireland Have Joined the Euro?	Trinity
2010	Harvard	The Decline of U.S. Economic Dominance	Harvard
2011	Oxford	Ireland Owes a Debt of Gratitude to Britain	Oxford
2011	Yale	It's All America's Fault	Trinity

Year	Opposition	Topic	Victor
2012	Cambridge	Ireland Should Rejoin the Sterling Area	Trinity
2012	Harvard	The U.S. State Does Not Care for its Sick	Harvard
2013	Oxford	Deserting the Euro	Trinity
2013	Yale	Tax is Theft	Trinity
2014	Cambridge	United States of Europe?	Cambridge
2014	Harvard	U.S. Education System	Trinity
2015	Oxford	100% Inheritance Tax	Trinity
2015	Yale	Opening the Mexican Border	Yale
2016	Cambridge	Will the EU Benefit from a Brexit?	Cambridge
2016	Harvard	Should We Be Afraid of Cheap Oil?	Harvard

ENDORSEMENTS

‘The Student Economic Review gives many students their first opportunity to publish a piece of academic written work. It thus supports and promotes the rigorous analysis, excellence in learning and persuasion that are essential building blocks for future careers and broader intellectual contribution. The collected contributions, now reaching into a third decade, constitute an elegant contribution to scholarship and erudition of which Trinity College can be proud.’

John Fingleton
DPhil Oxford and former Chief Executive Officer of Fair Trading London
Editor, SER 1987

‘The Student Economic Review is the only student-run economics journal that I know of at any university. It has succeeded beyond anyone’s wildest expectations when it first came out, over 20 years ago. As recent events have highlighted, economics is still a young discipline, and the economics profession still has much to learn, but the opportunities and questions are exciting. The Student Economic Review is an unparalleled vehicle for getting students involved in research in economics and related fields.’

Jonathan Wright
PhD Yale and Professor of Economics at John Hopkins University
Editor, SER 1989

‘There’s a strange alchemy to the Student Economic Review. It pulls together a diverse community of students to produce a publication like no other. Whether surveying the state of the art, or changing the state, the articles it contains bring out the best in contributor. More than that, though, the final product is greater than the sum of its parts. The ties it forges and the legacy it leaves are unique, as is clear on the faces of students, faculty and guests at each year’s launch.’

Paul O’Connell
PhD Harvard and President at FDO Partners Investment Management, Boston
Editor, SER 1991

‘The things I remember about being Editor of the Student Economic Review are what I value most in any work environment-intellectual rigour, collaboration and camaraderie, creativity and a small dose of pressure! It was great fun and fantastic to see what a few third-year students, with a little guidance and direction (thanks John!) can achieve. Down through the years, the calibre of the personnel involved has always been high and the quality bar continually raised. It’s also really cool to get your name in print!’

Geoff Gill

*MPhil and Partner Transfer Pricing Deloitte, Sydney
Editor, SER 1996*

‘My abiding memories of the Student Economic Review are of the tremendous efforts of the committee to meet the production deadline, the quality of the essays, the support from the Department, our pride in the finished product and a fantastic launch party. Other highlights included international interest in the Review and a debate with arch rivals UCD about the euro that evoked strong passions! Overall, involvement with the Student Economic Review provided some of the best experiences of my undergraduate days and I remain firm friends with many other members of the committee.’

Padraig Dixon

*DPhil Oxford and Research Associate Health Economics, University of Bristol
Production Manager, SER 1998*

‘I convened the debate once and spoke in it twice. One of the few occasions in my life that I can recall my appetite failing me was at Commons in advance of my first debate which was against a Cambridge team that featured the then World Champion. As it turns out, the nerves were put to good use and we went on to win. The following year, my appetite was much better...and we lost! My involvement in the Student Economic Review debates trained me for many things-giving seminars, organising conferences, structuring a paper-but I still haven’t thought of a comeback!’

David Comerford

*PhD UCD and Lecturer in Economics, Sterling University
Debates Manager, SER 2003*

'I found having the opportunity to submit content for peer-review and publish some original work to be an extremely motivating prospect. I participated as well in many hugely enjoyable Student Economic Review debates. My involvement on the committee also granted me the opportunity not only to make more friends from my course (some of whom remain my closest friends to this day) but meet my wife, so I'm particularly happy to have been involved!'

Cormac O'Dea
PhD UCL and Senior Research Economist, London
Editor, SER 2005

'The Student Economic Review experience opened my eyes to areas of economic research which I hadn't yet been exposed to and motivated my desire to do original research of my own and enter a PhD programme. I believe the high quality of the review reflects the hard work put in each year by the students involved and is a testament to the incredible legacy left over by the founders, previous team members and contributors.'

Cian Ruane
PhD Student at Stanford
Production Manager, SER 2011

'Ever since leafing through a copy of the Student Economic Review in my Junior Freshman year, my ambition to become involved in this prestigious student society could not be curbed. Leading the committee through the year from the first workshop to the launch was an experience dotted along the way with enduring memories. From a three-day discussion about which tablecloth should be used for the workshop (!) to finally holding a copy of the review at the launch evening. I'm sure our friendships will last as long as the memory of my scrupulous organisation!'

Cian McLeod
Strategic Operations Specialist at Google Ireland
General Manager, SER 2014

Further reflections available online at
<http://www.tcd.ie/Economics/SER/about/reflections.php>

THE STUDENT
ECONOMIC REVIEW



Contents

Time Passes But Memories Prevail	xx
<i>John O'Hagan, Economics Professor and President of SER</i>	
Welcome Message	xxii
<i>Kate Hayes, General Manager</i>	
Letter From the Editor	xxiv
<i>Gillian O'Connell, Editor</i>	
30th Anniversary Events	xxvi
<i>Sarah McDowell, Assistant Editor / Copyeditor</i>	
Student Economic Review Debates	xxx
<i>Gillian O'Connell, Editor</i>	

Economic History

God's Economists: Economic Thought in the Sixteenth Century	1
<i>Patrick McDonagh, Senior Freshman</i>	
Intergenerational Social Mobility in Britain: The Curse of Coal	8
<i>Daniel Fallen Bailey, Senior Sophister</i>	

Economic Research

Is Beer Consumption in Ireland Acyclical	20
<i>Gearóid Gibbs, Senior Sophister</i>	
Saving Private Data: The Economics of Online Privacy	31
<i>Greg Mangan, Senior Sophister</i>	
What Labour Force Characteristics Have the Greatest Impact on Productivity Across OECD Countries?	42
<i>Daniel Fallen Bailey, Senior Sophister</i>	

European Economy

- A Comparison of Financial Crisis Policy Responses by Ireland and Iceland** 55
James Green, John Kavanagh and Conor Leen, Junior Sophister
- Cheese, Chocolate and Cuckoo Clocks: The Swiss Model for the United Kingdom** 65
Elizabeth O'Higgins, Junior Sophister
- Competing Against Germany: Unit Labour Costs in the European Monetary Union** 72
Jonas Peisker, Junior Sophister
- Beyond Paranoia: The Economics of Non-EU Immigration** 78
Kilian Mueller, Junior Sophister
- The Last Resort: The EU's Rocky Road to Quantitative Easing** 85
Ellen Brennan, Junior Sophister
- Why the Market Cannot Roam Free in EU Fields** 93
Aisling Kirby, Junior Sophister

Industrial Economics

- Agency Theory and Implications for Firm Financing Decisions** 101
Colm Ryan, Senior Sophister

Developmental Economics

- Aid and Growth Revisited: Impact of Foreign Aid on Growth in Sub-Saharan Africa** 114
Paul Reidy, Senior Sophister
- United We Stand, Divided We Fall: On Requiring the Empowerment of Women** 129
Andrew Price, Junior Sophister

Analysing the Effect of Trade on Income Inequality	138
<i>Robert Cronin, Senior Sophister</i>	

Applied Economics

A Theoretical Analysis of the Mechanisms of Competition in the Gambling Market	149
<i>Rory McStay, Senior Freshman</i>	

Argentine Rail Development and Irish Meat in Britain, 1857-1910	156
<i>James Kelly, Senior Sophister</i>	

How Shale Fractured the OPEC Oligopoly: A Game Theory Analysis of the Oil Market in 2015	166
<i>Richard Roberts, Senior Sophister</i>	

Pricing's Next Top Model: A Game Theoretic Analysis of 'Freemium' Pricing	177
<i>Greg Mangan, Senior Sophister</i>	

The Game Theory of Open-Source Software	187
<i>Paul Reidy, Senior Sophister</i>	

THE STUDENT
ECONOMIC REVIEW



TIME PASSES BUT MEMORIES PREVAIL- A MESSAGE FROM JOHN O'HAGAN

It cannot be twenty-nine years since the first Student Economic Review (SER) was launched, largely thanks to the efforts of John Fingleton, a precocious young JS economics student! But it is indeed and we are now celebrating the 30th issue this year. What a vehicle it has been for me to meet and work with so many bright and innovative undergraduate economics students. Relying on teaching alone for such contact would not nearly suffice.

While the core of the SER for many years was the Review itself it soon widened out to include debates, first against UCD, then Oxford and Cambridge and more recently Harvard and Yale. These debates are now almost as much a part of the SER year as the journal itself, played to packed audiences in the GMB. And to think that the Oxbridge debates were started by a young JS economics student, Vinay Nair, against the President's wishes! The debates are held jointly with the Hist and the Phil, two of Ireland's, let alone Trinity's, premier debating societies. A reflection of how highly regarded the SER debates are, is that both societies each year compete fiercely to host them.

I have always been of the belief that economists should not leave the middle ground between economics and politics to others but be involved fully in this space through both the written and spoken word. Economic policy is inextricably linked with politics and the solutions to any of the great problems of the day, if they are to be effective, must take due cognisance of this reality. Although more mathematical and quantitative than the other social sciences, economics is still a social science with its central focus the improvement of the economy and society which it ultimately must serve.

There have also been Workshops organised in most recent years. This year though was exceptional with the two lectures given by Nobel Prize winners in economics, the first co-hosted with the Hist and the second with Trinity Economic Forum. It was a joy for me to watch on television the 2015 Nobel Laureate Angus Deaton receive his prize in Stockholm knowing that just a few weeks earlier he had addressed the Hist/SER workshop. It was also fascinating to observe a few months later the 2002 Nobel Laureate Vernon Smith mingle for an hour or so with students after his talk in Trinity.

The core of the SER though is the Review. Each year students compete to have their essays accepted, their first exposure to the 'cruel' world of academic publication! And each year we have many very fine undergraduate essays published in the SER, an accurate reflection of the very high quality of many of the undergraduate economics students at Trinity we are privileged to teach and get to know each year. I look forward very much

to seeing this year's selection, all chosen exclusively by the three student members of the editorial team. The publication is unique, produced as it is by JS students each year, with the committee from the previous year always ready to provide advice when needed.

It would be invidious to mention any previous members of the Committees, as there are far too many people involved, all of whom have had extraordinarily successful careers since. By the time you will read this you will, through the Launch, have got a taste of the extent to which this is true. Some of them have been extremely generous to the Department but thanks for this is for another occasion.

For now it is important to mention a few past students, who predated 1987 and who have made the SER financially self-sufficient. Harry Hartford has to take pride of place with his generous funding of the SER over ten years. Alan Gray, Kyran McStay and Conor Kileen, who predated Harry as a student, also deserve our rich gratitude for their funding in recent years. Vinay Nair, who as mentioned defied 'his' President, has also kindly funded the debates for many years and our most recent graduate Aoife Cunningham provided funding almost before she received her first pay package! Many others have contributed in kind, such as for example being guest speaker at the launches or as a judge at the various debates. And others contributed very generously indeed to the department through the Grattan Scholarship scheme.

For a while I wondered was the SER committee to be dominated by male students, as seven out of the eight in some recent years were male. This was all turned on its head this year, with seven of the eight committee members being female. They, like all other committees, were a pleasure to work with. From the first meeting in early October, when each committee looks awestruck by what lies ahead, it is fascinating to see the year evolve to the point where the enormity of what they have achieved is only finally realised when the first printed issues of the Review are held firmly in their hands.

Thankfully there are several members of the current staff to continue with this great student project, so that this 30th issue is far from the last. They have already been involved and have greatly assisted for several years.

A reflection of the regard which students hold for the SER over the years is the huge number of former committee members who have returned for the occasion of the Launch of this the 30th issue. Over half have come from overseas, some from the United States or further afield. Many friendships established through the SER have lasted to this day and in some cases ended in marriage!

It has been a great privilege for me to have been involved with and to have met so many wonderful students over the years through the vehicle of the SER.

JOHN O'HAGAN

Professor of Economics and President of SER.

WELCOME TO THE REVIEW

On behalf of the committee of the 30th edition, I am proud to present you with the 2016 Student Economic Review. The Review is an academic journal published by the undergraduates of Trinity College Dublin. It is a practical and instructive introduction to academic research and publishing, encouraging students to engage with the subject of their degree in an thoughtful manner.

The Review was founded in 1987, making this year the thirtieth anniversary of publication. We, on the current committee, are very aware of the giants on whose shoulders we are lucky to be. We are so grateful to all past committee members for setting the standards and establishing the traditions that we now uphold.

The help we received from your legacy is clear. In February, we sponsored a talk by a Nobel Laureate in Economics, Vernon Smith, at the Trinity Economic Forum. Last November, we were equally proud to welcome, with the College Historical Society, our discipline's current Laureate, the 2015 prize-winner Angus Deaton. The audiences had the privilege of hearing these economists speak of their areas of expertise. For her work in organising Deaton's talk, and our two annual debates, I would like to thank our incredibly capable Debates Manager Annabel O'Rourke. Those contests, against Cambridge and Harvard, were notable for the depth of understanding the multidisciplinary teams could bring to motions about Brexit and the Oil Crisis.

Ultimately, the most important part of the SER's year, and the part that makes our activities unique, is the Review itself. Every submission is evidence of a student who is interested and original. We are delighted to congratulate everyone who sent us an essay and everyone whose essay has been included. I cannot give enough praise to our Editor, Gillian O'Connell, and Production Manager, Emily Waters, for the time, skill, and passion they respectively put into judging these works, and doing them justice in publication.

The remaining members of the 2016 committee; our Copyeditor Sarah McDowell, our Launch Managers Swetha Sampath and Stephen Barr, and our Finance Manager Huda Awan: a huge thanks to you all. It's been a pleasure working together and I could not think of nicer people to be forced to spend time with.

The Review has been made possible by our sponsors. For the contributions of our long standing chief sponsor Mr Harry Hartford, we will always be grateful. Mr Vinay Nair, a past Debates Manager, now lends his name to the winner's cup and in his generosity is ensuring the continuance of the standard he helped establish. We sincerely thank Key Capital for their valued support, this year and in the future. To Mr Alan Gray and Ms Aoife Cunningham, both Trinity graduates; the fact that you continue to add so much to academic life in the college deserves our warmest gratitude.

For help of a different kind, we thank the members of the Economics department

who happily act as our patrons: Dr Michael King, Dr Tara Mitchell, Dr Ronan Lyons and Dr Michael Wycherley. Further to this, we want to show our gratitude to all other staff of the Department and the Alumni Office, who gave of so much of their time for us. Your experience and guidance are greatly appreciated.

Lastly, to the President of the Review, Professor John O'Hagan, I want to express the thanks of every past essay author and committee member, those of us lucky enough to be part of your last edition at the college, and every single student who will in the future become involved in the journal that will continue to be yours. For your encouragement, kindness, and warmth, we are deeply grateful. Any affection you have for the Review, we have for you, and more. The Student Economic Review inspires us, and in that it mirrors its founder.

We hope as you open the thirtieth edition of the Student Economic Review you will appreciate the breadth and the quality of its content. We had the joy of publishing some truly excellent essays this year. Our wish is that you catch the same feeling of excitement and awe as you read them.

KATE HAYES

General Manager, Student Economic Review 2016.

LETTER FROM THE EDITOR

It is my pleasure to welcome you to the 30th Edition of the Student Economic Review. Over the past 30 years, the Review has provided a platform for students to engage with material presented in class and to explore areas beyond those encountered in lecture halls.

This year saw 85 submissions to the Review, highlighting its continued popularity and importance. These submissions spanned a huge range of topics and the volume of work received, as well as the variety on display, emphasises the huge level of interest economics has received in recent years.

This year's Review is divided into six sections, which I will now briefly introduce. The first section, Economic History, opens with a novel essay on the 16th century origins of economic thought. One of the reasons for studying economic history is the explanations that it can provide for the present. This year's recipient of the Dermot McAleese Medal for Best Essay, Daniel Fallen Bailey, shows the continued relevance of this approach by tracing the origins of Britain's North-South divide back to the Industrial Revolution and the educational scarring which occurred in the North as a result of the availability of jobs and the high opportunity cost of pursuing education.

The second section, Economic Research, sees econometric techniques utilised to investigate the relationship of beer consumption in Ireland to the business cycle, the determinants of whether or not people are worried about the privacy of their data in an age of growing online economic activity and the characteristics of a labour force which are most important for productivity.

The third and largest section, European Economy, was also the section which received the most submissions. The level of interest and the variety of topics on display here reflects the huge role played by Europe, as well as the extent of the challenges it faces. These essays compare policy responses to the Financial Crises in Ireland and Iceland (which while not in the EU is geographically and culturally European, as well as being part of the Schengen Area), examine the Swiss model as a possible option for Britain in the event of a 'Brexit,' offer critique of some of the common claims made about the negative economic effects of non-EU immigration, evaluate the ECB's programme of quantitative easing and argue in favour of centralised decision making for the agricultural sector. Jonas Peisker receives the prize for Best European Essay for his comprehensive and meticulously researched paper on the importance of Unit Labour Costs in the Eurozone.

In the fourth section, Industrial Economics, we see an exploration of agency theory, specifically how it relates to how firms choose to finance themselves. The fifth section, Developmental Economics, includes an econometric investigation of the effect of aid on growth, an exploration of the relationship between female empowerment and economic development and an essay exploring the effect of trade on income inequality, which we

placed in this section due to its particular focus on examining these effects in developing countries.

The sixth and final section is Applied Economics. This section again is notable for the variety on display, including an analysis of information asymmetry in and regulation of the gambling market, a proposed method of investigating the effect of global shocks on the domestic economy using historical data on the development of Argentinian railways and Irish meat exports to Britain between 1857 and 1910 as well as game theoretical explorations of ‘freemium’ pricing and open source software. Richard Roberts receives the inaugural Donagh Lynch Prize for Best Applied Economics Essay for his use of game theory to examine the upheaval in the oil market that has been caused by the entry of shale producers.

I would like to take this opportunity to thank my fellow Editorial team members; Sarah and Kate for their hard work in selecting and editing the essays. Kate, as General Manager, also ensured the smooth running of the year through her hard work and organisation. I would also like to thank the Managerial team who organised a number of fantastic events throughout the year. Emily, our production manager, deserves special acknowledgment for the long hours she put in to ensure the Review was published.

Ultimately the Review can only be as good as the essays that are received and I would like to extend my heartfelt thanks to everyone who submitted. The quality and variety on display in all submissions was hugely impressive, making the process of narrowing down essays a difficult but also enjoyable and illuminating one.

I also would like to thank the Economics Department, especially Dr Wycherley, Dr Mitchell and Dr Lyons for all their support. Finally, particular thanks are owed, of course, to Professor John O’Hagan who has been a source of constant advice and support throughout the year. The Review would not be what it is today without his dedication and commitment over the past 30 years.

Without further ado I now invite you to turn the page and begin. Being part of the Review this year has been a fantastic experience and it is my hope that you will enjoy this collection as much as I have.

GILLIAN O’CONNELL

Editor, Student Economic Review 2016.

30TH ANNIVERSARY EVENTS

This year, the Student Economic Review had the pleasure of welcoming both the 2015 Nobel Prize Winner in Economics, Angus Deaton, and the 2002 Nobel Laureate in Economics, Vernon Smith, to Trinity College Dublin. These events provided students and academics alike with the opportunity to engage with economic affairs outside of the lecture hall.

Nobel Prize Winner Visits Trinity College Dublin

17 November 2015

The Student Economic Review and College Historical Society had the privilege of hosting the 2015 Nobel Prize Winner in Economics, Angus Deaton recently in Trinity. Students and academics alike filled the GMB to watch the Princeton Professor receive the Gold Medal for Outstanding Contribution to Discourse and hear his address.

Widely regarded as one of the forefront thinkers on welfare economics and inequality, the native Scotsman has held esteemed positions in his home country, through an honorary fellowship at Cambridge, and in the United States, where he was President of the American Economic Association. Praised for stressing the importance of individuals, households and their choice architecture in the formation of economic policy, he coined the Deaton paradox, which observes how sharp falls in income are not necessarily reflected in consumption. He has also been known to court controversy, as a vocal critic of foreign aid and its limited effectiveness.

Beginning with an overview of his family history, Professor Deaton showed how he followed the socioeconomic advancement began and encouraged by his father, a miner turned civil engineer, by becoming the first in his family to attend secondary school, and subsequently university. Peculiarly, he stressed the role of luck in his own family's success, as his father's contraction of tuberculosis saw him sent to Scotland, instead of to the battlefields of World War One. He compared this to the role of chance in the good fortune of the wealthiest in society, saying they tend to underestimate it.

Professor Deaton then ventured into his area of expertise, discussing some of the views expressed in his book *The Great Escape: Health, Wealth and the Origins of Inequality*. Refuting any idealists in the room, he stated that one cannot champion economic progress whilst criticising the existence of inequality, as the two go hand in hand. His exploration of some advantages of inequality proved particularly interesting, from its incentivising effects to its advancement of education and technology.



Simultaneously he cited its many disadvantages, such as those who advance blocking the progress of others, through creative destruction or political manipulation. Overall he stated that inequality, particularly in the US, reflects private returns far in excess of its social ones, such as through its exacerbation of climate change.

Following on this sentiment, he gave an insight into his current research on how the 45 to 54 age group in America have displayed an increasing mortality rate compared to the steadily declining mortality amongst all other groups. Comprised almost exclusively of whites and not reflected in any other OECD country, he cited irresponsible marketing and an ‘epidemic of despair’ as possible reasons.

Despite the issues explored in his address, Professor Deaton ended on an overall positive note. Economic growth and progress have seen overall living standards in the western world steadily rise over the last 200 to 250 years, which will ensure the pursuit of happiness and prosperity despite setbacks. He also affirmed that the growth of developing countries does not require the halting of that of wealthier countries.

SARAH MCDOWELL

Assistant Editor / Copyeditor, Student Economic Review 2016.

Nobel Laureate Speaks at 2016 Trinity Economic Forum

6 February 2016

At the recent Trinity Economic Forum (TEF), the 2002 Nobel Laureate in Economics, Vernon Smith, spoke to a packed theatre of students, academics, and policymakers, from Ireland and abroad. Professor Smith's address, co-hosted by the Student Economic Review on 6 February 2016, had the distinction of making this year the first time a Nobel Prize winner partook in the TEF.

Born in Kansas before the Great Depression, Professor Smith, who is currently at Chapman University in California, has enjoyed a long tenure at the pinnacle of his field. Celebrated for pioneering the establishment of laboratory experiments as a tool in empirical economic analysis, it was about this area he chose to speak, though his expertise ranges to include capital theory, finance, and natural resource economics.

Professor Smith introduced his talk by placing experimental economics in context against the traditional experimental sciences. He explained how in physics error can be controlled through precision in experimental design, whereas due to the heterogeneity of human beings, error in his own field must be controlled through repetition. With the challenging subtleties of experimental economics made apparent to the audience, Professor Smith began to speak about disproving false economic beliefs.



The first of the beliefs in question was that a market would be theoretically perfect only when all traders have perfect knowledge of the conditions of supply and demand, the second was that bubbles would not form in markets for tradeables if prices were known and transparent.

Professor Smith surprised his audience by admitting that he initially experimented on both topics in order to confirm the hypotheses. That his work revealed that a small number of people with only private information could find equilibrium, and that even with perfect information traders in a market could create a bubble, fascinated the academic community.

Professor Smith explained that these results had far-reaching implications for the understanding of the rules that govern the markets and the interaction of people within them. He reflected that though these experiments had given him answers to questions he wouldn't have thought to ask, what he found most remarkable was how long the false beliefs persisted, and how hard it was to convince people that the evidence to the contrary mattered.

Mentioning some of the further research his work and the work of experimental economists in general had prompted, in topics as diverse as using house prices to predict recessions, and constructing markets to trade high voltage electricity, Professor Smith ended his speech on a note of excitement about what the future of his field would bring.

KATE HAYES

General Manager, Student Economic Review 2016.

THE SER DEBATES

Since the first of the Student Economic Review debates was held in 1996, they have come to represent one of the most exciting events in the Trinity calendar. This year saw Trinity face Cambridge and Oxford with both occasions drawing large audiences and proving to be hugely enjoyable evenings. We would like to take this opportunity to extend our sincerest gratitude to a number of people and organisations. Firstly, to the College Historical Society who co-organised the Cambridge debate, particularly Auditor Julia McCarthy and Correspondence Secretary Annabel O'Rourke. Secondly, to the University Philosophical Society and their President Ludivine Rebet and Secretary Matthew Nuding who were a pleasure to work with and ensured that the debates exhibited the professionalism that characterises both the Phil and the SER. Special thanks also goes to Vinay Nair who organised the first SER debate and our sponsors Key Capital, Harry Hartford, Aoife Cunningham and Alan Gray without whom none of this would be possible.

Trinity vs. Cambridge

25 November 2015

The first of the two annual Student Economic Review (SER) debates took place in Trinity College on Wednesday 25 November 2015. The debate took place in a packed GMB chamber and was chaired by Dr Patrick Geoghegan, an expert on 18th and 19th century Anglo-Irish relations and host of *Newstalk's Talking History* programme.

Co-hosted with the College Historical society, the debate saw teams from Trinity and Cambridge tackle the motion *This House Believes that a Brexit Would be Good for the EU*. The Trinity Team; Sophie Donnelly, Cormac Henahan and Liam Hunt proposed the motion while the Cambridge team; Alasdair Donovan, James Riseley and Matt Hazell opposed.

Both teams offered different visions of a post-Brexit Europe, with the proposition describing a Europe free to pursue ever-closer union, and which would hold the upper hand in any trade negotiations with Britain following a Brexit. The opposition on the other hand spoke of a Europe that would come to be dominated by protectionism with the loss of a veto for the current free trade block. Their version of a post-Brexit Europe was a far less stable one, with Brexit leading to a contagion effect, providing a framework for other countries to leave and giving fuel to anti-Europe voices across the continent.

One of the central questions of the debate was the nature of Britain's role in the EU. On the one hand, the proposition described Britain as an agent for positive reform (pointing towards its role in reforming the CAP and EU fisheries policy) and a champion of free trade as it desperately needed in the EU. On the other side, Britain was described by the proposition as being more interested only in the economic advantages of member

ship to Britain and not in the European Project as a political and social union. They argued that because of this Britain is an obstacle to progress, specifically the further political and economic integration, which they contended is essential to the EU's future.



Above: Professor Frances Ruana, Former Director of the ESRI

While the judges left the chamber to deliberate the audience heard floor speeches from Jamie Donnelly, Oisín Vince Coulter, Olly Donnelly and Ronan Mac Giolla Rua before Dr Geoghegan offered his highly entertaining take on proceedings.

The judging panel, chaired by Professor Frances Ruane, former director of the ESRI deliberated for twenty minutes before returning to the chamber and awarding Trinity captain Liam Hunt the gold medal for best speaker and declaring the Cambridge team the winners by a narrow margin and presenting them with the Vinay Nair Cup.

Trinity vs. Harvard

11 February 2016

The second of the annual Student Economic Review (SER) debates took place in the GMB on Thursday 11 February. Co-hosted with the Philosophical Society the debate saw teams from Trinity and Harvard tackle the motion This House is Not Afraid of Cheap Oil.

The motion was proposed by the Trinity team of Oisín Vince Coulter (SS Classics and Philosophy), Jamie Donnelly (MSc. High Performance Computing) and Izzy Sweeney (JS Jewish and Islamic Civilisations) with the Harvard team of Pavan Hegde (Second Year Economics), Joy Jing (Third Year Architecture and Environmental Science) and Krysianna Papadakis (Third Year Philosophy, Political Science and Economics) opposing. The debate was chaired by Patrick Geoghegan; professor in modern history and host of Newstalk's Talking History programme.

The debate covered a wide range of areas, only appropriate given the influence that oil exerts in today's world. It centred on the political, economic and environmental consequences of cheap oil with both teams offering widely different takes on the outcomes of cheap oil in each of these domains.

The Trinity team argued falling oil prices will weaken authoritarian regimes propped up by oil revenues in countries like Russia and Saudi Arabia. Falling oil prices may reduce the capacity of these states (and the Islamic State) for military spending and subsequently diminish their ability to project their power and ideologies internationally. The proposition also argued that the West's decreased reliance on these states for energy will allow them to speak out more about human rights abuses in and by these countries.

Harvard argued that the objectives of these states will not change and they would simply find alternative sources of revenue and that lower oil-prices, and falling standards of living may actually lead to increased aggression as they attempt to shift the blame to the West.

The teams also disagreed on the consequences of cheaper oil for the economy. While both agreed that falling prices benefit consumers in oil importing countries, the Harvard team questioned whether the marginal benefit to these consumers is worth the cost to ordinary people in oil producing states (who are generally much poorer). Another point of contention was the effect of oil on the stock market. Harvard argued that low oil prices have caused a stock market crash and will cause persistent downward pressure on the S&P while Trinity contended that current low prices are merely a fluctuation caused by a re-adjustment.

The final area of discussion was the environmental consequences of cheaper oil. The proposition argued that low oil prices present an opportunity to renewable energy producers and gives time to develop more efficient alternatives to tackle climate change.

They also argued that lower oil prices would lead investors to back more profitable energy sources, leading to the development of renewables. Conversely the opposition contended that cheaper oil brought about by increased supply will lead to increased consumption and that low oil prices would damage renewable energy development as these energy sources will only be popular if oil is a worse option. If oil remains cheap, they claimed, consumers will not switch to alternate sources.



From left to right: Pavan Hegde, Krysianna Papadakis, Joy Jing, Mary Harney

While the judges Mary Harney, Aoife Cunningham, Rosalind Ní Shúilleabháin and Eoin O'Liatháin retired to deliberate, the audience heard floor speeches from Ruth Lennon (JF PPES), Matthew Collins (SF PPES), Rory O'Sullivan (JF English and Ancient Greek) and Mark Finn (JF BESS). Dr Geoghegan then offered his entertaining take on the evening's discussion.

The judging panel returned to the chamber after twenty minutes of deliberations and the panel chair Mary Harney declared Harvard the winners in a close contest. She then proceeded to present them with the Vinay Nair trophy. The gold medal for best speaker was awarded to Trinity's own Jamie Donnelly.

GILLIAN O'CONNELL

Editor, Student Economic Review 2016.