STUDENT ECONOMIC REVIEW 2021

Student Economic Review 2021

University of Dublin

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

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The Editor,
Student Economic Review,
c/o Department of Economics,
Trinity College,
Dublin 2,
Republic of Ireland.
Printed by Print Run Ltd.

Cover by Séamus O’Beirne.

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

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Guest Speakers at the Launch of the Student Economic Review, 1990-2021

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 Mc Rae	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)	Tomy Healy	Irish Stock Exchange
2004 (Vol. XVIII)	Gerry Foley	ITV PLC.
2005 (Vol. XIX)	John Fingleton	Competition Authority
2006 (Vol. XX)	Marius Brülhart	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

Year	**Editor**	**General Manager**
2012 (Vol. XXVI)	Tony O’Connor	Debbie Blair
2013 (Vol. XXVII)	Brian Higgins	Marielle Grigby-Rocca
2014 (Vol. XXVIII)	Féidhlim Mc Gowan	Cián Mc Leod
2015 (Vol. XXIX)	Gearóid Gibbs	Michael Mahony
2016 (Vol. XXX)	Gillian O’Connell	Kate Hayes
2017 (Vol. XXXI)	Míde Ní Ghríofa	Alexandru Radu Puiu
2018 (Vol. XXXII)	Keelan Beirne	Aditya Garg
2019 (Vol. XXXIII)	John (Charlie) Walsh	Luisa Mostarda
2020 (Vol. XXXIV)	Harry Humes	Kevin Loftus
2021 (Vol. XXXV)	Ronan Dunne	Yvonne O’Kiersey

Editors and General Managers of the Student Economic Review, 1987-2021

Year	Editor	General Manager
1987 (Vol. I)	John Fingleton	Paddy Waldron
1988 (Vol. II)	Kevin Carey	Finbar McDonnell
1989 (Vol. III)	Johnathan Wright	Joe Denehy
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 Mc Mahon	Niamh McDonagh
2000 (Vol. XIV)	Ana Carrie	Collette Murphy
2001 (Vol. XV)	Ronan Lyons	Charles Larkin
2002 (Vol. XVI)	Ivan McAdam	Janine Boyd O’Carroll
2003 (Vol. XVII)	Rowena Gray	Elaine Doyle
2004 (Vol. XVIII)	Denis Tkatchenko	Tara McInhoe
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 Ni Shúilleabháin**

Prize-winning Essays of the Student Economic Review 2020/2021

Best Overall Essay: Dermot Mcaleese Medal

A Gender Aware Analysis of Kremer's O-ring Theory of Development

Ellen Mchugh

Best Irish Economic Policy Essay

Dublin' the population: the case for radical national population growth

Tomas O'Connell

Student Economic Review

The 2021 Committee

General Manager	Yvonne O'Kiersey
Editor	Ronan Dunne
Assistant Editor	Oisín Ó Cuill
Copy Editor	Liam Mulryan
Production Manager	Katherine Potter
Finance Manager	Bernard Mahon
Debates Manager	Eimear Healy
Launch and Workshops Manager	Emma Taggart

Back Row (L-R): Yvonne O'Kiersey, Yvonne O'Kiersey, Oisín Ó Cuill, Eimear Healy

Front Row (L-R): Ronan Dunne, Katherine Potter, Bernard Mahon, Emma Taggart

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
Trading London
Editor, SER 1987

"My involvement in the SER was an important defining point in my undergraduate experience at Trinity. It introduced me to the world of academia, the role and importance of academic publishing and the range of questions and depth of research possibilities in the discipline of economics. It has stood the test of time and grows stronger every year attracting the highest calibre of students."

Carol Newman
PhD TCD, Associate Professor TCD
General Manager, SER 1997

"Ever since leafing through a copy of the SER in my JF 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 out friendship will last as long as the memory of my scrupulous organisation!"

Cián McLeod
Strategic Operations Specialist, Google Ireland
General Manager, SER 2014

2013	Yale	Tax is Theft	Trinity
2014	Cambridge	United States of Europe?	Cambridge
2014	Harvard	US Education System	Trinity
2015	Oxford	100% Inheritance Tax	Trinity
2015	Yale	Opening the Mexican Border	Yale
2016	Cambridge	Will the EU benefit from Brexit	Cambridge
2016	Harvard	Should we be Afraid of Cheap Oil?	Harvard
2017	Oxford	The EU is Unsustainable	Oxford
2017	Yale	Globalisation is Doomed	Yale
2018	Cambridge	Britain Should Pay Reparation to Former Colonies	Cambridge
2018	Harvard	The American Dream is Dead	Trinity
2018	Oxford	This House would unite Ireland post-Brexit	Yale
2019	Yale	Protectionism is Failing America	Cambridge
2019	Cambridge	Open All Borders	Cambridge
2021	Oxford	Break-up the UK	Oxford
2021	Yale	Implement Universal Basic Income	Trinity

Student Economic Review Debates, 1990-2021

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 Resposibility	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?	Harvard
2010	Harvard	The Decline of US Economic Dominance	Trinity
2011	Oxford	Ireland Owes a Debt of Gratitude to Britain	Trinity
2011	Yale	It's all America's Fault	Trinity
2012	Cambridge	Ireland Should Rejoin the Sterling	Harvard
2012	Harvard	The US State Does Not Care for its Sick	Oxford
2013	Oxford	Deserting the Euro	Trinity

My hope is that for you, the reader, that this edition will meet your expectations of excellence. This journal signifies the hard work undertaken by the whole committee, Trinity's Department of Economics, and of all students involved. We hope that the 2021 Student Economic Review is an insightful, engaging and inspiring read.

Yvonne O Kiersey,
General Manager, SER Vol. XXXV

David McWilliams and Dr John Fitzgerald on topics related to their fields; Housing Policy in Ireland and Ireland Post-Brexit. We would like to thank one of the Patrons, Ronan Lyons, for being involved in the conversation with David McWilliams on the night. Eimear was always on top of everything for the events and was integral for their successes.

This year, alight of restrictions, the Review's goal was to increase accessibility for all. Firstly, in light of the pandemic, the journal revamped its social media sites to continue to promote the value of economics within the Trinity community, and in the greater society. Katherine Potter, the Production Manager was integral for the creation of our first Instagram page, and for the first LinkedIn alumni group. Without the addition of these social media platforms, the advertising of our events and debates would not have been as successful and smooth running.

Secondly, our committee worked hard to allow for accessibility in events by offering sign-language interpreters, automatic subtitles (on Zoom) and through font changes in the Review itself to aid those with visual impairments. As a committee, we believe that the SER should be accessible to all and have made the first steps towards an approachable future.
The 35th committee would like to thank our sponsors, and we propose a special thanks to TRiSS for allowing us to use their Zoom Webinar function for all of our debates, events and Launch this year. Ben Mahon, our Finance Manager, has worked hard to obtain grant funding from the Trinity Association and Trust for the printing of this book and has strived towards corporate funding for future committees. His role on cutting and instituting finances will be recognised for years to come.

Considering the circumstances of COVID 19, the 2021 committee has exceeded all expectations. I would like to personally thank each and every one of my committee for attending the weekly meetings and for having such enthusiasm and dynamism during such wearisome times. Without each and every one of you, this would not have been possible and I thank you for making my job as the General Manager that much more exciting.

Welcome from the General Manager

As the General Manager, myself and my committee are honoured to welcome you to the 2021 Trinity Student Economic Review. In its 35th year, the Student Economic Review continues its tradition as an entirely student-driven academic journal in Trinity College Dublin.

The Review showcases the exceptional work being undertaken by Trinity's undergraduate Economics students who have a contemporary and topical outlook on the world of economics today. The quality of the outstanding essays we have received this year mirrors the top quality content that has perpetuated through time. We thank everyone who submitted articles this year. The Editorial Team, comprised of Ronan Dunne, Oisín Ó Cuill and Liam Mulryan, had the challenging task of selecting the articles to be published in the journal. They have succeeded at choosing and editing articles of the highest standard which are presented in this book. They have also aided the committee in all other aspects throughout the year, which as a committee we recognise and appreciate deeply.

Our highly anticipated international debates against universities such as Yale and Cambridge continued this year (be it online). The two debates covered topical economic themes around universal basic income and a divided UK. Emma Taggart, our Debates Manager, must be attributed for the success of the two events. Although not an easy job to get in contact with both the HIST, PHIL and the international universities (especially during COVID restrictions) she managed to face time pressures excellently and the debates and trials ran smoothly and professionaly.
Our Workshops Manager Eimear Healy took on not three, but four virtual events this year alongside the Launch event. The first two, an Academic Writing Workshop guest lectured by postgraduate students, and the annual Economics Scholarship Workshop, both took place before Christmas. The second two events were a 'Guest Speaker Series', the first of its kind for the SER. We hosted two external economists -

Student Economic Review Welcomes

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. All six speakers in the debate had respective institutions at multiple competitions. The debate was chaired by Baroness Natalie Bennett, peer the House of Lords and former Green Party leader, and judged by Brian O'Donovan (RTÉ's Washington Correspondent), Laurie MacFarlane (Economics Editor at OpenDemocracy) and Shreya Nanda (Economist at the Centre for Economic Justice).

Caoimhin Hamil spoke first and told the audience of the economic consequences of the Coronavirus pandemic and the impact it has had on communities across not only his own community but also communities throughout Dublin. Hamil furthered his argument by indicating that the recession brought on by the Coronavirus pandemic had made the need for economic support more pertinent. Prastik Mohanraj spoke first for Yale, and gave arguments relating to the lack of benefits brought about through the implementation of Universal Basic Income alongside highlighting issues with the funding of the policy and a government's ability to sustain such an economic policy.

Ellen McHugh from Trinity spoke next, and began by rebutting Mohanraj's material whilst simultaneously bolstering Hamil's previous arguments. She went on to add an example of a minimum-wage worker in middle America to demonstrate the opportunities for greater support and further training that could be offered through the implementation of Universal Basic Income. As such the McHugh brought in the notion of the improvements the policy could bring to the workplace and labour market before going on to reference statistics from Alaska, which already has a UBI scheme.

Jake Kelly spoke second for Yale and provided additional economic reasoning to Mohanraj's initial arguments. Kelly then noted the role of government in providing welfare programs for a nation that would otherwise not be available or have as great an impact on society if it was substituted for the implementation of Universal Basic Income. Sean Gordon Dalton and Cameron Chacon concluded the debate with whip speeches for Trinity and Yale respectively. They summarised the best arguments presented by their side and weighed up the claims given by the opposition. Both speakers managed to weave in humour alongside generation and rebuttal.

Dylan McCarthy opened up the debate laying out the propositions plans to discuss the political, social and economic reasoning for breaking up the United Kingdom. Primarily focusing on the movements for an independent Scotland and a United Ireland, McCarthy told the audience of the dissonance between England and the regions of Northern Ireland and Scotland respectively.

Adam Roble spoke first for Oxford, rebutting McCarthy's arguments. Roble also provided economic reasoning behind why the two aforementioned regions should not distance themselves from the United Kingdom. Isabel Healy spoke second for Trinity further outlining some of the points made by McCarthy, while also giving a rebuttal to many of Roble's earlier arguments. Healy then went on to discuss the role of Brexit
in the relations between the regions of the United Kingdom. Arguing the country's exit from the European Union has sped up the nation's inevitable break-up.

Ananya Basu from Oxford spoke next, deftly rebutting arguments made by Healy she then went on to further lay out arguments made by Roble, bostering his earlier points. Basu then went on to note how Wales had become the elephant in the room with the proposition not addressing how the nation only has a small portion of its citizens asking for independence.

Concluding the debate were Jack Williams and Alex Miller who both provided excellent Hugh whip speeches for Trinity and Oxford respectively. Each speaker encapsulated the arguments from their own side and assessed the points made by the opposing team, making their final claims with both humour and concise arguments.

Trinity vs. Yale

Following the introduction of Biden's stimulus plan for the economy the Yale speakers faced the task of opposing the motion: "This House Would Implement Universal Basic Income". This Yale team consisted of Prastik Mohanraj, Jake Kelly and Cameron Chacon. The Trinity team speaking in proposition, featured Ellen McHugh, Sean Gordon Dalton and Caoimhin Hamil

When the last speaker had finished, the chair for the evening, Baroness Natalie Bennett, invited the judges into another zoom call so that they could deliberate over the results. The virtual audience was then treated to a number of well-spoken floor speeches.

With the floor speeches concluded, the judges re-entered the zoom call and the chair, Baroness Natalie Bennett, addressed the crowd. Bennett spoke in depth about the policy of Universal Basic Income while also adding in humorous comments regarding the virtual nature of such debates and indeed the experiences she has had at the virtual House of Lords. Bennett thanked the teams for their speeches and performance. Yale's Cameron Chacon was awarded Best Speaker and Trinity was announced as the winner of this debate.

The two debates gave a platform to a great variety of excellent debaters from Trinity, Oxford and Yale to discuss current social and economic issues. My thanks goes to all the speakers and guests of the debates, my fellow SER Committee members, and faculty members Tara Mitchell, Ronan Lyons, Michael Wycherley and John O'Hagan for their advice and support throughout this year's SER programme.

Emma Taggart
Debates Manager

SER Debates 2020/21

Since their introduction into the SER programme in 1996, debates have been an integral part of the Review's interaction with the student body and wider college community. Student speakers are chosen for their knowledge of the subject matter, as well as their ability to provide a convincing argument to engage the entire audience.

The debates offer an excellent way for students to showcase competing economic ideas, articulate their viewpoint and defend it from opposing perspectives, in particular ones of strong contemporary relevance. For those in virtual attendance this year, the debates act as a fantastic way for people to see both debate and oratory at its highest level. Thus, the debates often provide a multidisciplinary companion to the papers presented in the Review.

The continuation of the Coronavirus pandemic has resulted in debates being carried out online through the medium of Zoom. The SER held two debates this academic year. Thanks are due to the committee members of the Student Economic Review, the University Philosophical Society and the University Historical Society as well as our faculty patrons, guest judges and chairs, for ensuring the great success of these events.

Trinity vs. Oxford

The Oxford speakers entered the zoom call on a February evening after having seen some of the fallout from the end of the Brexit transition period at the beginning of the year making the motion of :"This House Would Break Up the United Kingdom" increasingly relevant. The Oxford team, speaking in opposition, consisted of Alex Miller, Ananya Basu and Adam Roble, whilst the Trinity team featured Dylan McCarthy, Isabelle Healy and Jack Williams.

The debate was chaired by Katy Hayward, author and Professor of Sociology at QUB, and judged by John FitzGerald (Economic and Social Research Institute) and Professor Gavin Barrett (Professor in Sutherland School of Law, UCD).

as well as some more general advice on how to tackle the exam period. In such a different and difficult year, where students may have been quite apprehensive about the exams, we were glad to have provided some practical tips and guidance.

Speaker Series
8th & 10th March 2021

In Hilary term, the focus switched to more topical themes with some prestigious guest speakers, organised in a two-part series. The first of these featured Prof. John Fitzgerald, Research Affiliate at the ESRI, who gave his views on what the future of the Irish economy will look like after Brexit. He touched on what the problems might be surrounding trade between Ireland and the UK, the possibility of a united Ireland, and whether Ireland will reap any post-Brexit benefits. It was clear from the discussion that there will be a significant impact on both the Republic of Ireland and Northern Ireland in terms of trade and the all-island economy. Clearly, the scale of this impact remains to be seen but is likely to be significant. It was a very informative evening and was well-received if the high volume of questions from the audience is a good indicator.

The second in the series was a joint speaker event between the SER's very own Prof. Ronan Lyons and the economist and TCD alumnus Prof. David McWilliams. The two had a very interesting exchange on the Irish housing crisis. Among the key points raised were the assertions that Ireland is building the wrong type of accommodation to meet current housing needs and that residential planning is frequently blocked by NIMBYism. The workshop identified possible solutions including a dereliction tax, building "up" rather than "out", and a more general change of attitude towards new buildings in Irish cities.

Many thanks to all our guest speakers who took time out of their busy calendars to share their expertise with us. Sincere thanks to the Patrons for the continuous support, and to the Committee for all the help with organising these workshops. An additional thank you to the administrators at TRiSS for getting the technology up and running.

Despite not being able to meet in person, I found the experience to be very enjoyable and fulfilling. I would highly recommend to future students to get involved with the SER.

Launch & Workshops Manager, Student Economic Review 2021
Eimear Healy

SER Workshops 2020/21

The workshops have become a staple feature of the Student Economic Review. They have a dual purpose, enabling Economics students to engage with the subject outside of the classroom, while also allowing students of other disciplines to gain some insight into the field. The workshops often serve as an introduction to the SER for younger students and can inspire them to start writing and submitting to the review. We ran two events in Michaelmas term: an academic writing workshop and the foundation scholarship workshop. In Hilary term, we were very happy to be able to host three guest speakers namely Prof. David McWilliams, Prof. John Fitzgerald, and Prof. Ronan Lyons.

The unique position of having to run all events online has come with its challenges but, ironically, has also meant that it has never been easier for students to participate. All workshops have seen a high turnout and great interaction among the participants, which we hope is a good sign that the events were engaging and thought-provoking despite the circumstances.

Academic Writing Workshop with Trinity Business Review
November 26th 2020

Following on from last year's successful academic writing workshop, we decided to host another one of these events, this time with the Trinity Business Review. We invited three Ph.D. students of Business and Economics - Declan Cahill, Juan Duran, and Sören Sinz - to speak with the students about their research and share their experience in writing for academic audiences. They provided some excellent guidance to students who were considering pursuing a Ph.D. after their studies and provided some very practical writing tips.

Collaborating with other reviews is a tradition that we hope future committees will continue as it encourages interdisciplinary research and introduces the SER to students of other subjects. Many thanks to the Trinity Business Review for collaborating with us on this event.

Foundation Scholarship Workshop
December 10th 2020
The SER were very happy to host the annual foundation scholarship workshop for students planning on taking the exams in January. Previous successful students kindly volunteered to give a rundown of the exams for Economics,

2011 (Vol. XXV)	Tom O'Mahony	Department of Transport
2012 (Vol. XXVI)	Kyran Mc Stay	Key Capital Limited
2013 (Vol. XXVII)	Alan Gray	Indecon Economic Group
2014 (Vol. XXVIII)	Anke Heydenreich	Attestor Capital LLP
2015 (Vol. XXIX)	Declan Sheehan	JP Morgan
2016 (Vol. XXX)	Various Speakers	Past Committee Members
2017 (Vol. XXXI)	Kevin O'Rourke	All Souls College, Oxford
2018 (Vol. XXXII)	Liam Delaney	U.C.D.
2019 (Vol. XXXIII)	Carmel Crimmins	Reuters
2019 (Vol. XXXIII)	Seán Barrett	Dáil Éireann
2020 (Vol. XXXIV)	Eithne Fitzgerald	Former Minister of State
2021 (Vol. XXXV)	John Fitzgerald	ESRI
2021 (Vol. XXXV)	David McWilliams	Irish Economist

Letter from the Editor

Welcome to the 35th edition of the Student Economic Review. Throughout its brief history as a flagship publication, the Student Economic Review has empowered students to voice their opinion in the field of Economics with stimulating arguments consecrated through past issues of the Review. In these increasingly muddled and ambiguous times, the Review's goal of promoting undergraduate writing is averred.

As the world transforms into a new Covid-19 era, the Review is dedicated to promoting both pioneering and provocative articles. Past contributors as well as numerous committee members have progressed to become leading experts in their respective fields of Economics. This is an attest to the Review's commitment to promoting excellence at the undergraduate level. The vivid kaleidoscope of undergraduate thinking has been conveyed throughout the Review, with this year producing topics across multiple subjects in Economics and a widespread contribution from all cohorts of students.

The task at hand for the Editorial team, consisting of myself, Liam Mulryan and Oisin O' Cuill, was to select the first-class of undergraduate economic research. All essays submitted showed exceptional understanding of economics, an almost Herculean effort with superlative writing by any metric.

This year, the Review charters essays by students from multiple disciplines. The publication is brimming with fresh reasoning and avant-garde thinking which provides a stimulating take on both contemporary and classical Economic thought. The Review allows students to explore new horizons with students provided with a carte-blanche to echo their ideas on paper.
The Review begins with the standout essay of the year by Ellen McHugh, who critiques Kremer's O-Ring Theory in a careful manner to extend the model to better mirror the society we live in. This essay has received the Dermot McAleese Medal for Best Overall Essay of the 35th Edition of the Student Economic Review.
In light of the Covid-19 pandemic, we feared that students may apply themselves to writing an essay for the Review. Unfortunately, the Review seemed less popular this year than in recent years – reflected in the 12 essays published this year.

Against the background of this, I extend a very warm welcome to the 2021 Edition of the Student Economic Review. There is no question of the flair that Trinity students possess and this is conveyed in this year's issue of the Review.

Ronan Dunne
Editor, Student Economic Review Volume XXXV

A Gender-aware Analysis of Kremer's O-Ring Theory of Development

By Ellen McHugh
Junior Sophister

The 35th Edition of the Student Economic Review begins with a sagacious application of Kremer's O-Ring Theory employing a gender-aware analysis by Ellen McHugh. This first-class exploration employs an employment and production matching model within the gender norms that are a mainstay of modern society. McHugh recognizes the failings of the O-Ring theory, extending to unpaid household labour, female's lower return on education and that key assumptions of the theory are not micro-founded. Pre-existing literature extensions to O-Ring Theory are discussed. Such extensions amass to increase investment in production. McHugh argues that without a real gender norm challenge to the status quo, the O-Ring Theory will continue to fall short of explaining the skills and production matching system, which is central to the theory. The critiques proposed in this paper are well-founded and improve the model's descriptive power, a difficult task given the complexity of O-Ring Theory.

I. Introduction

In 2016, the United Nations' High-Level Panel on Women's Economic Empowerment released its first report: Leave No One Behind - A Call to Action for Gender Equality and Women's Economic Empowerment. Its findings illustrated persistent inequalities in economic opportunities and outcomes between

between men and women. This paper aims to compare the findings and recommendations of this report, and those of other writers in the field of feminist economics in particular, to the theoretical explanation of labour and wage inequality encapsulated by Kremer's O-Ring Theory of Economic Development, with particular regard to the assortative matching component of the theory. It seeks to provide a comprehensive, gender-aware analysis of Kremer's theoretical framework, its underlying assumptions, and its implications. The paper will analyse the extent to which O-Ring Theory can account for barriers to female economic empowerment in developing countries, particularly regarding entry into and progression within the labour market.

Gender-aware analysis is economic analysis that seeks to account for the fact that economic and social processes take place within and through gendered relationships (Elson, 1993). It provides a new perspective from which to create and analyse economic models and to understand the impact of economic and social policy. Promoting a more interdisciplinary approach, gender-aware analysis acknowledges the role of "patriarchal norms, traditions, institutions, and values affecting women's lives" (Beneria, 2003, p. x) in order to gain a fuller understanding of their conditions and, often, their subordination.
The importance of gender-aware analysis is particularly evident in the case of development. Rather than relegating "gender" to a subsection of development theory and practice, gender-aware analysis promotes the centring of gendered relationships in mainstream development thinking. Additionally, gender-aware analysis helps to mitigate some of the harms caused by socially disembodied economics (Heilbroner, L. & Milberg, W., 1995) and can help bridge the gap between theory and reality that has characterised much of mainstream modern economics. Gender-aware analysis is a valuable tool that can be used to guide economic and social development in a more inclusive manner, through adapting underlying assumptions to be more reflective of the lived experiences of women in both the developed and the developing world.

For the purposes of this paper, gender is treated in accordance with the definition provided by the American Psychological Association, i.e. "the attitudes, feelings, and behaviors that a given culture associates with a person's biological sex…[it] is a social construct and a social identity." (APA, 2020). This paper is limited in its discussion of "men" and "women" as internally homogenous social categories. Further work incorporating analytical processes such as Gender-Based Analysis Plus (GBA+) is required to capture the complex interaction between gender identity, race, religion, and other factors that influence how people are affected by economic and social processes. The merit of this paper lies in its initial critique of an established model of economic development as a starting point for further research and analysis.

II. Labour Inequality in Developing Countries: Current Trends

The World Economic and Social Outlook (WESO) conducted by the ILO in 2017 illustrates persistent inequalities in economic opportunities for men and women, which are particularly evident in developing countries. Although developing countries are reported as having the lowest participation gap, this is mainly driven by economic necessity, and women in the labour force are less likely to find employment than men. This is most keenly experienced in Northern Africa (where there is a 10% gap in the employment rate), Latin America and the Caribbean (3.4%), and the Arab States (12.9%). Women are less likely than men to be in waged or salaried employment and are more likely to be in vulnerable forms of employment. In developing countries, 13.6% of employed women are in salaried or waged employment, compared with 24.3% of men. The greatest disparity is seen in sub-Saharan Africa, where there is a 13.7% gap, an increase of 0.6% since 2007. 19.4% more women than men work as contributing family workers, an increase of 2.4% since 2007.

These trends "...stand in stark contrast to the major progress on gender gaps in education and health." (UN, 2016, p. 24) While there has been substantial investment in improving educational and health outcomes for women and girls in the Global South, these outcomes have not translated into economic empowerment and gender equality in labour market opportunities.

The gendered occupational segregation reported by both the ILO and the UN disproportionately harms female workers in terms of income, security, and safety. Women tend to be over-represented in lower-paying sectors and informal work, and those employed in informal work tend to be paid less than men in these settings (UN, 2016, p. 29). As informal work lies outside of formal legal requirements surrounding labour rights, workers lack access to basic infrastructure and social protection and are more likely to be threatened by sexual violence and harassment in the workplace. Additionally, as they are not included in official government statistics on the labour market, the challenges faced by these workers are often unrecorded (UN, 2016, p. 32) While informal

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[1] It should be noted here that some Arab States are no longer classified as "developing" countries.

[2] "A contributing family worker is a person who holds a self employment job in a market-oriented establishment operated by a related person living in the same household, and who cannot be regarded as a partner because of the degree of his or her commitment to the operation of the establishment, in terms of the working time or other factors to be determined by national circumstances, is not at a level comparable with that of the head of the establishment." (OECD: Principles and Recommendations for Population and Housing Censuses, Revision 1, United Nations, New York, 1998, para. 2.82.)

work does not constitute the typical waged employment often considered by economists in development models, it forms a key part of the economies of developing countries, particularly given the effects of globalisation. Therefore, the question of why women are over-represented in this sector is relevant for questions of development and occupational segregation, both of which are key components of O-Ring Theory.

III. Kremer's O-Ring Theory of Development: An Overview

The O-Ring Theory of Development builds on existing literature in economic theory to create a model of production and employment where workers of similar skill levels are matched together at points along the chain of production that reflect their skill level, q (Kremer, 1993). Where skill is perfectly observable, perfect assortative matching occurs both within and between firms. In equilibrium, therefore, "...small differences in worker skill create large differences in productivity and wages" (Kremer, 1993, p. 557), as firms that face a high marginal product of skill will bid the most for the workers with high q. High-skill workers will therefore be matched in firms with high levels of production, and will be offered correspondingly high wages. When the chain of production is extended internationally, the theory argues that countries with the lowest q workers are allocated to the earliest stages of production. Kremer contends that this is consistent with the wage and productivity differences between rich and poor countries, meaning that the O-Ring Theory has empirical relevance to the study of international economic development.

Kremer also endogenizes skill as the product of investment in education or effort, e, and accounts for the fact that perfect matching of workers is not always possible (Kremer, 1993, p. 564). In this case, workers will "match in rank order of skill, with the division of the firm's output among its heterogeneous workers determined by a complex bargaining problem." (Kremer, 1993, p. 565) Imperfect matching leads a worker to underinvest in their skill, which leads other workers to do the same, due to the strategic complementarity of the investment. Therefore, worker investment in education and effort will not reach the socially optimal level and consequently, neither will q. Additionally, Kremer proposes a model of "self-fulfilling statistical discrimination" under imperfect observability of skill (1993, p. 570) to explain income differences between ethnic groups within the same country. Employers conducting matching and overseeing the bargaining process regarding wages will pay a lower wage for a group of workers assumed to be in a low equilibrium, no matter their actual skill level. As a result of this, workers in this group "will choose a lower e, validating the employers' expectations." (1993, p.570) Kremer points to the differences in return to education between white and black workers in the United States as evidence of this model operating in practice. In this manner, Kremer conceives a model that provides a mechanism by which bias can be concretely translated into negative outcomes. Whether this model is an accurate one, and whether it is applicable to gender bias in particular, will be questioned further in this paper.

IV. Gender Inequality in Investment in Education and Effort: Gendered Educational Disparities in Developing Countries: q and e Effects

Gender disparities in educational attainment are a leading factor in differences in skill levels in a number of developing countries (Chua, 2017). However, O-Ring Theory fails to account for the fact that unequal distribution of the burden of unpaid labour, household labour in particular, constrains women from translating additional education or skill into increased labour force participation or higher-paid work (OECD, 2014). Therefore, increasing women's q or e would not necessarily lead to an increase in the wages that they earn. In a model of unconstrained choice, this could be framed as women facing a lower return to education, and therefore choosing not to invest in it. However, the assumption of unconstrained choice does not hold in actuality, as women often face barriers to accessing education and improving their skill regardless of their preferences. In order for increased female education to address this inequality, it must be accompanied by policies designed to ease the burden of unpaid labour they face and efforts to alter societal norms about the role of women.

New Technologies: A Rising Tide that Lifts Some Boats

Based on O-Ring Theory, analysis by Dalmazzo et al (2007, p. 515) illustrates "why identical workers may receive different wages in equilibrium, and why complex technologies may increase wage inequalities amongst co-workers." While analysis based on technology may not apply directly to all forms of gendered wage inequality in developing countries, it is useful in certain contexts, particularly as the use of more complex technologies increases as development occurs. The basis for the increased wage inequality is that the use of more complex technologies requires more effort from workers. I would argue that this is most apparent in the short-term: while the technology may increase output and productivity and decrease workload in the long-term, at the point of adoption, workers must adapt their skillset in order to be able to use the technology effectively. This requires an increase in effort, through attending training programmes, concentrating more during the production process, and so on. Workers, therefore, will choose a higher level of e, and thus q, and will therefore earn higher wages. Plants that adopt new technologies will become "high-wage plants" (Dalmazzo et al, 2007) compared with plants that do not. The adoption of new technologies, however, will also lead to greater inequalities within plants between high-skill and low-skill workers. As argued by Lourdes Beneria (2003), women are overwhelmingly likely to be amongst those left behind by the adoption of new technology, as they are less able to upgrade their skill levels through means such as after-work training (OECD, 2014) Therefore, increasing women's q or e would not necessarily lead to an increase in the wages that they earn. In a model of unconstrained choice, this could be framed as women facing a lower return to education, and therefore choosing not to invest in it. However, the assumption of unconstrained choice does not hold in actuality, as women often face barriers to accessing education and improving their skill regardless of their preferences. In order for increased female education to address this inequality, it must be accompanied by policies designed to ease the burden of unpaid labour they face and efforts to alter societal norms about the role of women.

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What should be noted from this is that the lack of investment by women towards increasing their q is not shaped by their preferences, but rather by constraints on their mobility enforced by societal norms. As Beneria (2003, p. 119) puts it:

"...women's primary involvement in domestic work and childcare responsibilities continues to be a source of economic vulnerability for them, not only because this is unpaid work but also because it diminishes women's mobility and autonomy to design their labour market strategies."

V. Model extensions

Bias in Assortative Matching

Kremer (1993, p. 570) proposes an adapted model of self-fulfilling statistical discrimination in the case of racialised wage disparities. This may also be applied to gender wage disparities: if women are assumed to be in a lower equilibrium, employers will pay them less than their male counterparts through assigning them to lower-skill and lower-paying tasks on the chain of production. This can also partially explain why the increase in female education in developing countries has not been matched by similar decreases in gender gaps in economic opportunity and pay. O-Ring Theory offers a mechanism by which sustained gender bias in hiring and allocating practices can be translated into the perpetuation of gender wage differentials: if women face a lower return to education, their incentive to invest in e decreases substantially. Therefore, women are likely to end up in lower equilibrium than their male counterparts. However, this assumes that women are unconstrained in their choice to invest in e. Additionally, this mechanism assumes that decisions on hiring and allocation of tasks between and within firms are based solely on the assumed skill level of the worker. There are, however, numerous other factors that contribute to the gendered occupational segregation in developing countries which O-Ring Theory does not consider.

Non-q Factors Affecting Gendered Occupational Segregation and Wage Disparities Social Norms

Jayachandran (2020) identifies the manner in which social norms in developing countries restrict women's participation in the labour market. In societies that place a large value on "purity", women are restricted from participating in occupational areas that are traditionally dominated by men (Jayachandran, 2020, p. 6). More broadly, Jayachandran illustrates that variation in norms is correlated with variation in female employment, and that certain levels of development will actually lead to less female employment. In this manner, the relationship between economic development and female employment may be seen as a U-shaped curve. As wages grow at the beginning of the development process, households can afford to lower total hours worked, and norms linked to notions of purity or the role of women more broadly mean that those most likely to lower hours worked are women. As development continues, female employment will increase once more with the transition to "cleaner" office-based employment and increased education (Jayachandran, 2020). However, I would argue that a more fundamental shift is necessary to sustain female participation in the labour market and in affording equal opportunities for advancement within the labour market: a shift in societal norms away from those that are restrictive to women. While Jayachandran (2020) analyses a number of policies to work around these societal norms, these are not long-term solutions to the barriers to participation and progression faced by women.

The construction of the globalised economy is such that large and medium multinational corporations increasingly outsource and subcontract to the informal sector, often located in developing countries (Beneria, 2003). The firms to which MNCs outsource disproportionately prefer to hire women as they have less mobility and less bargaining power - they lack alternative options that they can leverage to negotiate higher wages and better working conditions. In these cases, women face lower wages regardless of their skill level, and the allocation of wages is based not on skill but on a logic of profit maximization grounded in the minimization of wages paid. This relates to what Elson (1993) terms the extraction of women's labour. The structure of the global economy in conjunction with adverse societal norms perpetuates the exclusion of women from formal employment and limits their power to negotiate better working conditions and higher wages. In order to combat this problem, higher regulatory powers and better oversight are needed to lessen the exploitation of female workers.

Limiting Competition for Higher-Paid Employment

Elson (1993, p. 245) argues that "[c]ritical analysis of markets and workplaces reveals that their norms and institutions are related to patterns of entitlement and power." In limiting the access of women to formal and informal networks of power, the competition among male workers for higher paid positions is decreased. The perpetuation of the status quo is incentivised and the transition of female workers from the periphery to the centre is resisted. This process, however, is not socially optimal: limiting competition decreases productivity and impedes achieving development outcomes. In this manner, O-Ring Theory may be incorporated: in consistently limiting competition through excluding female workers, countries may end up in low-productivity traps that individual workers do not have an incentive to escape from. However, O-Ring Theory cannot account for the emergence of this trap, and does not provide a concrete solution to it (as increasing investment in female education and skill would not lead to an increase in female participation, and may even decrease it in this scenario, as female workers would be perceived as even more of a "threat" to male workers).

VI. Conclusion

While O-Ring Theory is successful in capturing some of the mechanisms that lead to gendered occupational segregation, it fails to account for the restrictions limiting the ability of women in developing countries to freely design and execute labour market strategies. The extent to which e is endogenously chosen by female workers is highly questionable. While solutions to low productivity traps proposed by O-Ring Theory mainly focus on encouraging investment in education and skills, this may not translate into better outcomes for women unless it is accompanied by changing societal norms and greater freedom for women to design their own labour market strategies. Finally, the disproportionate representation of female workers in the informal sector is not primarily the result of skill level, but the result of preferences of firms to hire workers with less mobility in order to obtain higher profits. The global labour market (both across and within countries) is constructed in a way that limits competition for higher-paid work by excluding women from these positions and allows firms to increase profits through exploiting the biases that limit women's mobility and bargaining power. It is in developing countries that the effects of this process are most keenly observed. This is due to the fact that the globalised distribution of the production process already disproportionately disadvantages them, and that the limiting of competition acts as a barrier to achieving development objectives.

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The Role of Bespoke Policymaking in Sustaining Economic Growth

by James Burne
Junior Sophister

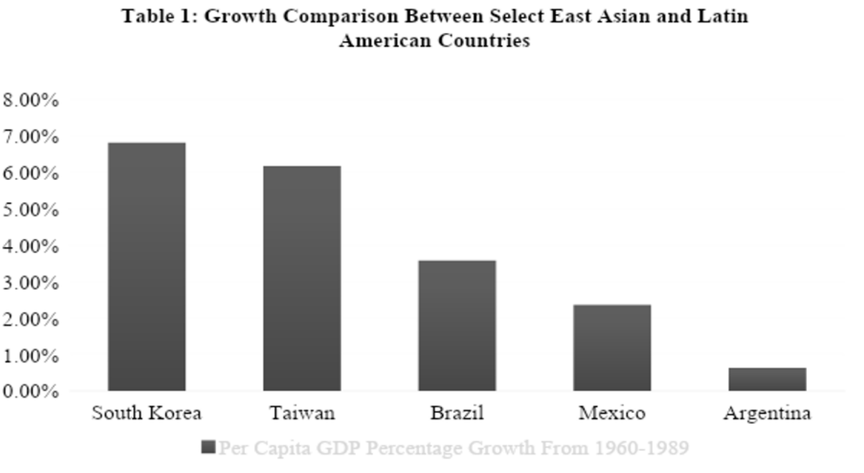
In this paper, James Burne espouses the virtues of creating specific rather than universal solutions to the economic problems facing less developed countries. The piece explores historical approaches to development and highlights the areas in which there have been missed opportunities for better policy approaches. Burne argues for more individualised frameworks for developing countries through the implementation of the growth diagnostics model, and analyses the concept of institutional monocropping. Ultimately, the paper outlines the argument for moving development away from past standardised reforms to a method founded in identification of individual problems.

Introduction

The process by which reforms are undertaken in developing countries to allow for economic growth is a delicate matter. If such reforms are effective and implemented correctly, then developing countries will establish a foundation upon which further growth can emerge. However, standardised reforms, the imposition of policies and values which have proved effective in developed countries, has undercut growth efforts. Hence, while generalised reforms such as the Washington Consensus and institutional monocropping were theoretically designed to promote development, they are ill-suited for the requirements of developing countries and have often resulted in backsliding. Therefore this paper will examine how bespoke policy achieved through the growth diagnostics framework and self-discovery are more conducive to growth than generalised reforms, and how such policy can promote sustained development. While one cannot completely reject the merits of standardised policies, such objectives must be achieved by countries that establish their own model of best fit for growth, not by adopting a pre-established one.

The Origins of the Washington Consensus

The policies adopted during the period of the 1950s marked a divergence between developing countries. Latin American countries employed import-substitution strategies to protect and develop their national industries. Conversely, East Asian countries such as Taiwan and South Korea focussed on developing their export industries through structural market reforms (Rodrik, 1996). One can observe a substantial regional difference in the growth of GDP per capita from 1960-1989 because of these different policies in table 1 (Rodrik, 1996). While Argentina achieved growth of less than one per cent, the 2.36% growth of Mexico is modest in comparison to the 6.82% of South Korea. Hence the fundamental differences in success between those who adopted market-based reforms and those who did not are evident, thus demonstrating the economic logic behind them. When one considers the failure of these import-substitution strategies together with the consequences of the lost decade of growth from 1980 to 1990 it is evident why Latin American countries would seek market reforms akin to those which brought success to the Asian tigers. For example, while many Latin American countries had high levels of inflation growth going into the 1980s, as indicated by the CPI, inflation growth in Brazil can be observed to be almost three hundred per cent greater in the 1980 to 1991 period than it was from 1970 to 1980 (Jaspersen, 1997 table 2). Conversely, one can observe that the East Asian countries in question witnessed a decline in the growth of inflation during the same periods and remained internationally competitive as a result. Thus, one can understand the desire for growth inspiring reforms given such failings.



Source: Rodrik (1996, pp. 13). Primary source: Penn World Table 5.5 (1993).

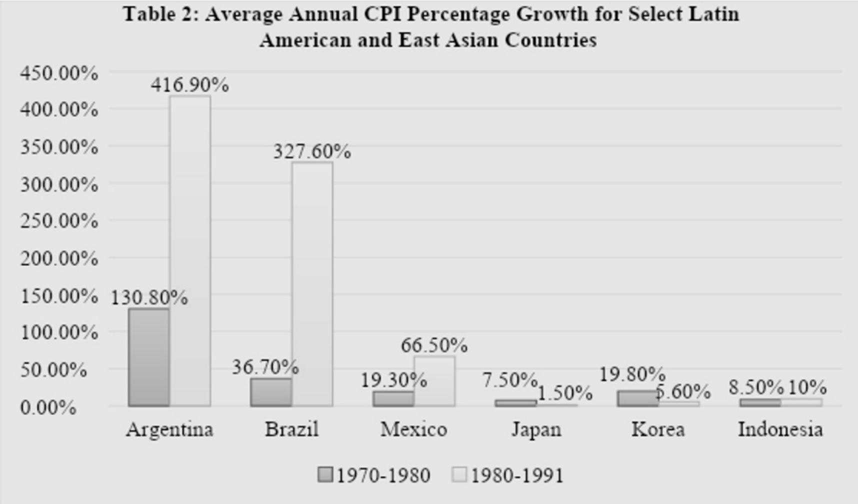


Table 2: Average Annual CPI Percentage Growth for Select Latin American and East Asian Countries

Source: Jaspersen (1997, pp. 76). Primary sources: World Bank, World Tables, 1982, 1987, and 1993.

The Washington Consensus responded to such growth failures in a series of reforms and development strategies designed to reignite growth. The Consensus is composed of ten market-orientated policy reforms designed to alleviate distortions that inhibit growth based on Western experience (Williamson, 2008). The ten reforms detailed in table 3 (Fischer, 2012) make sense under the logic of economic growth and the market-based policies which have been observed to work, for example fiscal discipline to reduce the balance of payments crises. The development of competitive exchange rates in the 1960s by South Korea and Taiwan (Rodrik, 1996) allowed their exports to compete with western rivals and their industries to grow. The establishment of such a regime in Latin America in addition to reforms such as trade liberalisation and increased FDI would theoretically create a competitive environment for domestic producers. Hence such reforms granted developing countries the opportunity to grow in a manner that would not have existed otherwise by providing guidance. Hence such reforms appeared to set Consensus adopting countries up for economic success.

Elements of the Washington Consensus	Summary
Fiscal discipline	Low deficits to prevent a balance of payments crisis
Public expenditure priorities	Developing infrastructure and public services
Tax reform	Establish a coherent tax base
Interest rate liberalisation	Government limited to supervision
Competitive exchange rate	Valued correctly to increase competitiveness
Trade liberalisation	Reduced barriers to trade overtime
FDI liberalisation	Increased foreign competition and investment
Privatisation	Removal of government involvement to increase efficiency
Deregulation	Reduced barriers to entry and exit
Secure property rights	Legally secured to incentivise investment

Table 3: The Washington Consensus
Source: Fischer (2012 pp. 13). Primary source: Williamson (2008).

The Washington Consensus Versus East Asia

While growth was slow to occur the Consensus had real effects. In addition to sharp declines in the share of countries with extreme inflation and bad policies (Easterly, 2019), from 1970 to 2015 countries that implemented the Consensus experienced a level of growth in five-year periods which was 2.07% to 2.87% higher in comparison to similar countries that did not implement the reforms (Grier and Grier, 2020). However such growth could be considered low given the high costs required to achieve the Consensus' reforms. However one can conclude that generalised policies have allowed for economic reforms which have facilitated growth, albeit slowly. However, while generalised policies do have a place in shaping growth one must also consider the dimensions in which generalised reforms failed.

Effective reforms must resolve underlying social issues to establish a foundation for consistent growth. For example, East Asian policies targeted income inequalities to enable an even distribution of resources (Jaspersen, 1997). Such a reduction allowed for an overall increase in education levels and therefore improved human capital. The expansion of human capital facilitated a higher level of growth which in turn reduced disproportional distribution. As such outcomes reinforce each other (Jaspersen, 1997), one can conclude that establishing policies that resolve underlying issues allows for growth to be developed on a stable foundation. While many Latin American countries lacked or employed a weaker version of the above policy (Jaspersen, 1997), one can observe that the Consensus did not expand upon inequality reduction. As the Consensus focussed on solely increasing GDP and not shared growth like East Asia did (Todaro and Smith, 2015 chapter 11), it provided little room for policymakers to to resolve underlying social issues. Thus by neglecting such social issues reforms have been less efficient than their Asian counterparts. Such differences in policy outcomes are reflected in table 4 (Krugman, 2008) where the Gini coefficient of Korea in 1998 was close to European counterparts at 0.32, whereas Argentina and Brazil in 2001 held values of 0.52 and 0.59 respectively, therefore indicating higher income inequality. The share of income held by the upper and lower quintile reinforces these observations. When one further considers the respective average GDP growth rates from 1960 to 1994 of 8.5% and 8.7% for South Korea and Taiwan, who did not readily follow the Washington Consensus, in contrast to Latin America's average of 4.2% (Collins and Bosworth, 1996), one can conclude that the paths forged by East Asia did not limit their growth, but rather liberated their potential when considering the restrictive nature of the Consensus in contrast to the development of policies that befit specific economic requirements and sustained growth. Therefore, while the Consensus did resolve key market distortions, its framework could not resolve fundamental issues due to its shallow penetration.

Source: Krugman (2008, pp. 34). Primary source: World Bank WDI database.

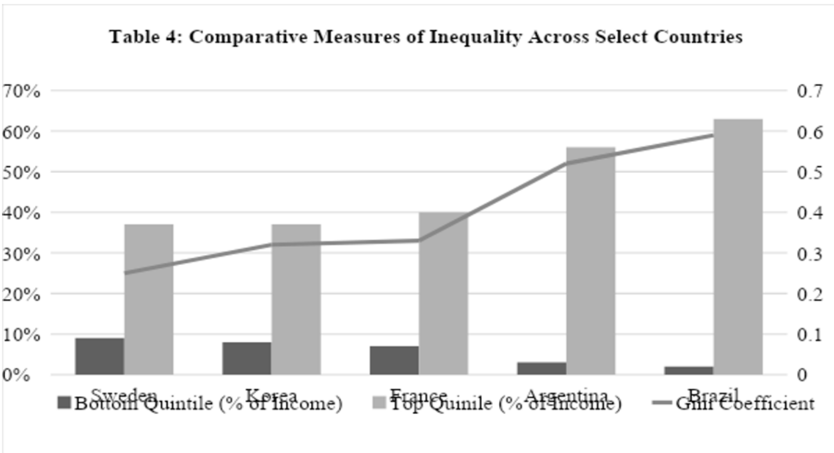


Table 4: Comparative Measures of Inequality Across Select Countries

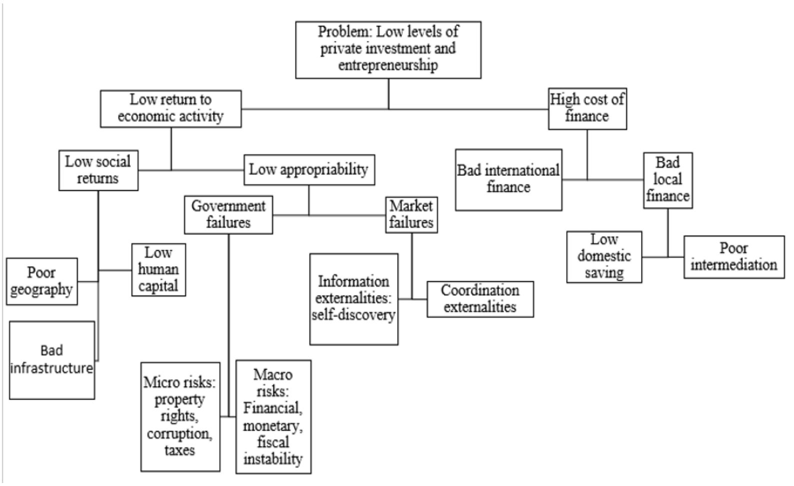
Growth Diagnostics and Bespoke Policy Making

Considering the weaknesses of standardised reforms one can examine the ability of the growth diagnostics model to create bespoke policies that allow individual countries to forge their own path towards sustained growth. The model allows countries to identify and develop policies to target the most binding constraint to growth (Hausmann, Rodrik, and Velasco, 2008). The logic behind targeting the most binding constraint is to allow for reforms that provide society with the largest marginal benefit possible as removing such hindrances paves the way for future development (Hausmann et al., 2008).

One can contrast this to the Washington Consensus where its numerous and more general reforms did not allow for such prioritisation and thereby may not have targeted a country's most binding constraint. Thus such a laundry list of reforms is less efficient as they are squandered on areas where they have little use as opposed to targeting areas that provide a higher level of welfare and have a significant multiplier effect.

One must first identify the largest constraint to growth using the growth diagnostics decision tree. From the tree in figure 1 (Hausmann et al., 2008) low economic activity can be identified by one of two problems: high costs of financing or low economic returns. By identifying which issue most accurately captures the economy one can then move down the tree to identify the binding constraint that is the root cause of the problem. For example, when facing low economic returns this could be caused by either low social returns or low appropriability. Thus the role of the model to identify the most binding constraint to growth and allow for policies to be constructed to resolve it. Hence growth diagnostics allows for a very accurate analysis of specific constraints and thus allows for reforms to avail of information that they would lack otherwise. One can observe that this process is a stark contrast to standardised reforms which are limited in impact if they do not prioritise the most binding constraint and lack the information necessary to tailor policies based upon how significant an issue is.

Figure 1: Growth Diagnostics Decision Tree



Source: Hausmann et al. (2008, pp. 326).

Once the binding constraint has been identified policies must be devised to target and minimise this distortion (Rodrik, 2008). As such policies specifically target the distortion in question one can observe the capacity of this model to construct policies that systematically build the foundations necessary for

for sustained growth. However, due to the sub-optimal conditions in which policymakers operate, a policy approach that may appear logical might only serve to further undercut growth. Thus Rodrik (2008) advocates the adoption of second-best policies that will better fit this second-best environment. Such policies can be observed regarding Chinese township and village enterprises, TVEs (Rodrik, 2006). As China lacked the judicial system required to secure institutionalised property rights, such rights were more secure under local governments. This guarantee encouraged investment in TVEs (Rodrik, 2006) and has contributed to rapid expansion in the number of TVEs from 1.5 million in 1978 to 23.4 million in 1996 (DaCosta and Carroll, 2001). Additionally, TVEs have increased their employment by approximately one hundred and seven million workers over the same period. Thus one can observe that TVEs and the bespoke policies which guided them have significantly contributed to the average annual per capita growth of eight per cent in China during these eighteen years (DaCosta and Carroll, 2001). Hence the binding constraint of poor property rights as identified in the decision tree was resolved by employing the second-best policy and was responsible for subsequent growth. One can contrast this to the Consensus which would not have considered the possible distortions of establishing formal property rights without the means necessary to enforce them. From this perspective growth diagnostics is considerably more adaptable, something which has proven to be vital providing the unique circumstances of countries.

Institutional Monocropping

For a country to maintain its bespoke reforms it must establish an institutional framework. The function of institutions is to allow for effective and meaningful interactions to transpire. In an environment that holds a high degree of uncertainty, it may be difficult to facilitate such interactions. Therefore the role of institutions is to structure the behaviour of actors to be predictable by incentivising and disincentivising certain actions (North, 2003). One approach to institutional reform is institutional monocropping. Monocropping involves taking institutions that have already been established and proven to work in developed countries and implementing them in a developing country (Evans, 2004). One can observe why this concept would be enticing to developing countries that are suffering due to their low-quality institutions. The adoption of standardised and universally accepted institutions can be viewed by developing countries as a superior alternative to local reforms which may fail in practice (Evans, 2004). This notion is reinforced by Rodrik (2000) who argues that there is room for standardised blueprints for assisting in the numerous technical issues that developing countries would otherwise be left to overcome alone. Therefore one can observe the desire to adopt such institutions considering that neglecting reform will hinder the sustainment of growth. Hence the implementation of standardised institutions will theoretically facilitate growth. However, again one can observe deficiencies regarding standardised reforms.

The failings of monocropping can be understood due to the differences in environments and understandings present in developed and developing countries. Both groups of countries operate under radically different preferences towards economic, political, and social structures. Hence, the notion that one can simply take one institutional form and baselessly apply it to all other countries regardless of their unique cultural issues or socio-economic position is bound to fail as this method does not cater to the pre-established dynamics of developing countries (Evans, 2004). For example, Mauritius, a small and divided society, was faced with the need to adopt export-orientated strategies while also employing protectionist measures to protect domestic industries (Rodrik, 2000). The standard institutional advice would have been to reform by liberalising the entirety of the economy. However, this advice did not consider how such institutional changes would have affected the already divided Mauritius. Instead, Mauritius established export processing zones, EPZs, to overcome its challenges despite how standardised advice would have advocated monocropping instead. The development of EPZs allowed policymakers to avoid worsening divisions while providing institutions based on cooperation, thus creating export opportunities and high levels of employment (Rodrik, 2000). One can observe that the creation of cooperative institutions improved governance, domestic investment (Rodrik, 2000), stability, FDI, and reduced external debt from 24% to 12.9% from 1981 to 2004 (Sobhee, 2009). While Mauritius has since diversified from EPZs towards ICT (Sobhee, 2009), it demonstrates how bespoke institutional reform can establish sustained growth when compared to monocropping. One can therefore conclude that a developing country cannot ignore the necessary steps of development as monocropping encourages. Rather they must establish their own bespoke approach to reform which incentives development instead of undermining it.

Conclusion

In conclusion, the effects of generalised and bespoke policy making in relation to economic development have been established. The Washington Consensus has evidently contributed to the reduction of distortions such as inflation and bad policymaking while institutional monocropping has provided some blueprints for institutions. However, such generalised reforms have overall proven to be inefficient in terms of sustaining growth when contrasted to the ability of the growth diagnostics framework to target binding constraints and the importance of self-discovery regarding institutional reform. Hence while one can draw inspiration from generalised reforms it is ultimately the task of bespoke policymaking to build the foundations upon which further growth can be achieved. Therefore, policy should enable countries to overcome their unique internal struggles and build upon this as the West once did for growth to be sustained.

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Eastern Europe's Demographic Crisis

by Niamh Howley
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In this essay, Niamh Howley argues that Eastern Europe's demographic trends point towards a looming economic crisis. Howley diagnoses Eastern Europe's demographic crisis as being caused by low fertility rates, high emigration rates, and an increasingly high dependency ratio. It is argued that demographics are an issue of immediate political and economic concern in Eastern Europe as current demographic trends in Eastern Europe will increasingly lead to adverse economic effects if not addressed. Howley ultimately argues that by increasing female labour force participation and by limiting the push-effects encouraging outward migration, Eastern Europe can stem a looming demographic and economic crisis.

I. Introduction

While the focus of debates on European migration has primarily centred on its impact on wages and unemployment, a more discrete yet dramatic crisis that is inextricably linked to migration has been brewing. Higher life expectancy coupled with lower fertility rates has led to considerable ageing of the European population. While the European population is still growing in most member states, it is doing so at slower rates and some member states are beginning to experience a decline in their population levels. By extension, this will have critical impacts on the future of the labour force and economic growth in Europe. In particular, in several Eastern European nations, high levels of emigration has not only led to population ageing, but also to population decline. This essay will discuss inter-EU migration with regard to its effects on the demographic and economic prospects of Eastern European countries in the European Union.

II. Demographic trends in Eastern Europe

Higher life expectancy, low fertility and emigration have led to the ageing of the Eastern European population. While old-age dependency ratios were mostly at or below the EU average of 29.9% in 2017, the projected average old-age dependency ratio for the European Union is expected to reach 57% by 2100, with projections for many Eastern European countries above this average (Eurostat). This highlights the drastic change in demographic structures that will occur unevenly throughout the EU during the current century. The effect of a rise in the old-age dependency ratio, however, is considerable. Higher ratios indicate a lower number of workers supporting the economically inactive elderly population, diminishing tax revenues, increased pressures on health systems and larger pension payments as a % of GDP.

In many Eastern European countries, the population is not only ageing, but it is shrinking. Indeed, the world's ten fastest declining populations are all located in Central and Eastern Europe. The populations of Bulgaria, Romania and Poland are expected to decline by 24%, 18% and 15% respectively by 2050 (UNDESA, World Population Prospects, 2017). In addition to negative net migration levels, Eastern European countries have had declining fertility rates well below the 2.1 replacement level. This decline is largely due to the rise of postmodern values, economic austerity, unemployment, and the withdrawal of numerous social welfare mechanisms (Fihel and Okólski, 2019). Declining fertility rates alongside constant mortality rates have thus resulted in a negative natural change in populations. This, however, is a challenge currently faced by many European states. What makes Eastern Europe more vulnerable to population decline is the additional pressure caused by negative net migration.

III. Emigration: Eastern Europe's empty nest
Asymmetrical migration flows

Before the end of communist regimes, migration from Eastern European countries was rigorously controlled and movement from East to West was limited. After 1989, migration to the EU-11 countries increased, driven by a search for work opportunities and higher living standards. As Eastern European nationals formed communities abroad, migration towards these locations became increasingly attractive (Fihel & Okólski, 2019). The ascension of Eastern European countries to the EU in 2004, Romania in 2007 and Croatia in 2013, significantly increased migration flows towards western member states. By the end of 2012, it is estimated that 16% of the 1990 South-Eastern European population had emigrated abroad (Atoyan et al, 2016). Migration flows have essentially been one-directional with a large amount of emigration from Eastern European states to Western Europe, and very little in the other direction. The share of non-nationals from other EU member states in Romania is 0.3%, 0.1% in Poland and 0.1% in Bulgaria compared to 5.2%, 8.1% and 7.9% in Germany, Austria and Belgium respectively, illustrating the largely asymmetrical migration flows in the EU (Eurostat). Similarly, the share of non-nationals from non-EU countries is equally low relative to western member states. As a result, several Eastern European countries in the European Union are experiencing negative net migration. Other countries, particularly in Central Europe, such as the Czech Republic, Hungary or Slovenia have experienced positive net migration flows which can be explained by the inflow of migrants from neighbouring countries in Eastern Europe (Atoyan et al, 2016).

"Go West, Young Man"

Emigration from East to West is largely driven by both cyclical and structural factors. Differences in income per capita levels, work opportunities and institutional quality are the main "push" factors in relation to westward migration (Atoyan et al, 2016). A recent survey in Bulgaria revealed that the main motivations for emigration were higher wages and better health and social systems abroad (Kalfin, 2018). Indeed, the majority of migration flows are comprised of young workers in the working-age population (15-64). In Eastern Europe, the majority of emigrants are males, with fewer women leaving to work abroad (Eurostat, 2018). Typically, those seeking work opportunities abroad are also highly educated and highly skilled. In 2010, the proportion of emigrants with third-level education in Hungary, Latvia and Poland was higher than the proportion of nationals with third-level education in their respective countries of origin (Atoyan et al, 2016).

A looming economic catastrophe

The loss of highly educated and skilled workers is detrimental to the economy. Poland, Bulgaria and Latvia are forecast to lose over 30% of their labour force by 2050 with several other Eastern European states forecast to lose around 20% of their labour force (Ilyana et al, 2019). In economic terms, this amounts to a significant loss of human capital which is necessary for productivity and growth. Total factor productivity is expected to decline significantly as a result of the changing demographic structure. Indeed, an increase in the share of workers in their 40s is correlated with a rise in aggregate productivity while an increase in the share of older workers is negatively correlated with the latter (Ilyana et al, 2019). Innovation and the capacity to adapt to new technologies is associated with younger workers compared to older workers who may find it more difficult to adapt (OECD, 1998 as cited in Ilyana et al, 2019).

The estimated impact of this "brain drain" on economic growth in the Central and Eastern European region is significant. Central and Eastern European real GDP is projected to decrease by 1.4 percentage points on average every year over the next three decades if total factor productivity and labour forces continue to shrink. As such, the level of output in the region may be 35% lower in 2050, with labour shortage accounting for 60% of this reduction. Average real GDP per capita as a proportion of the Western European average is expected to increase from 52% in 2020 to 60% in 2050. As such, convergence will continue but at a slower rate (Ilyana et al, 2019).

One positive aspect of emigration may be the inflow of remittances. This may increase purchasing power, demand and consumption, benefitting the overall economy. In Bulgaria, the sum of remittances exceeds foreign direct investment flows in the country and as such, represent an important source of finance and income (Kalfin, 2018). In particular, remittances may remove some positive effects, these are outweighed by the negative economy-wide impact of emigration.

IV. A “silver” lining for Eastern Europe?

Boosting fertility rates are tackling the symptoms, not the cause.
Much of the debate over the policies required to remedy the current change in demographic structures have focused on increasing fertility rates. Hungary has introduced measures such as free IVF treatments or loans for couples promising to have a child in the future. Similarly, Poland’s “Family 500+” offered a monthly benefit (worth 12% of the average gross wage) to encourage an increase in fertility rates. According to the Polish Central Statistics Office, there has been a 13-15% increase in birth rates since the implementation of the policy (European Commission, 2018).

However, these policies can also have counterproductive effects. According to Magda et al (2018), the participation rate of potential mothers would have been between 2.5 and 3% higher in the absence of the “Family 500+” policy. These policies are also extremely costly and occupy a proportion of the budget which should be used to tackle the causes and not the symptoms of emigration. Indeed, if no significant changes are made to the cyclical and structural issues that lead to emigration, emigration is likely to continue, and increased fertility may amount to more emigrants looking for work elsewhere (UNFPA, 2018). Even if such policies offset the negative natural rate of change, the main cause of population decline and ageing in Eastern Europe will be left unaddressed.

Increasing labour force participation
Western countries in the EU have often aimed to fill labour shortages through both EU and non-EU immigration. Nevertheless, whether immigration helps provide a solution to the unsustainable future dependency ratio is conditional on labour participation and integration into society and the workforce. Indeed, while immigration can increase the working population, it can also increase the non-working population (Joint Research Centre, 2019). On average, the participation rate of male immigrants is only slightly lower than that of the native population. This is not the case for female immigrants whose participation rates remain much lower. In addition, immigration characterized by low levels of human capital will be problematic as automation and technological processes increase. Unless immigrants participate highly and are integrated into the labour force, the dependency ratio will not change (or may rise). This counterproductive effect can be avoided by selective immigration policies targeting highly skilled immigrants who may contribute more to the system while also alleviating a shrinking labour force (Serban, 2012). In any event, immigration may not have the same impact in Eastern Europe as in Western European member states. Indeed, some Eastern European countries have exhibited a less welcoming attitude towards immigration and due to lower wages and poorer institutional quality, have remained less sought after as a destination for economic migration.

As long as emigration flows increase from East to West and unless policies are successful at retaining workers, a shrinking population in Eastern Europe will remain an inevitability for the near future. However, increasing labour force participation may help mitigate the effects of a shrinking labour force and ease fiscal pressures. In particular, policies should aim at increasing the labour force participation of women which is often less than that of the male population. The lower participation of women in the labour force is a lost opportunity to increase GDP and to ease the fiscal burden of an ageing population (Pignatti, 2020). While many of the factors influencing participation in the labour force such as education levels, cultural attitudes to working mothers and poor labour conditions cannot be overcome quickly, a significant number of policies can still have a considerable effect on female participation. Such policies include the provision of childcare subsidies, financial support for the care of the elderly, and parental leave (OECD, 2004). Furthermore, the implementation of flexible labour market measures such as allowing for mobility, or temporary work contracts may help reconcile the need to work and the desire to have a family. Indeed, increasing female participation in the workforce would benefit the economy widely. Swedish policies in this regard (generous parental leave benefits, state-funded childcare services and paid "child sick days") have favoured female participation rates and have enabled Sweden to have one of the highest fertility rates in the European Union. In addition, the removal or modification of joint taxation schemes in which second earners (most often women) are taxed more heavily than single earners may remove yet another obstacle in the way of female participation in the labour force. These policies would lower the opportunity cost of women entering the workforce.

Ultimately, education policies will be key to enhancing labour force participation. Professional development and training will be necessary to adapt to changing job requirements in the face of the technology revolution. Investing in high levels of human capital have also been found to encourage workers to participate in the workforce as a return on their investment and delay retirement (Serban, 2012).

In the long run, policies should be aimed at creating employment and attracting foreign direct investment. This may include the pursuit of policies aiming to attract service industries such as remote IT servicing, technology or service centres to remotely serve Western European based companies and markets. In addition, policies aimed at increasing job satisfaction, career advancement and generating higher salaries will be especially important. Institutional reform will also play a key role in retaining workers as well as potentially attracting those who have made the decision to emigrate back to their home countries. In recent years, return migration has increased in Eastern Europe in part thanks to government programs. Expanding these programs may not only benefit the demographic structure of the country but may also generate beneficial knowledge spillovers throughout the economy. Return migration received a significant boost as remote working became possible during the pandemic. While this may be temporary, being re-acquainted with the homeland may encourage a stronger flow of return migration in the future.

V. Conclusion

Eastern Europe will likely face considerable demographic and economic challenges in the face of population decline and ageing driven by natural change and emigration. This will have negative repercussions on growth and development. Eastern European countries must focus on retaining their skilled workforce and on increasing labour force participation, particularly that of women, in order to mitigate these effects.

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EU: Eco-warrior or Bond Villian ?

by Evan Henry (Junior Sophister), Greg Arrowsmith (Junior Sophister)

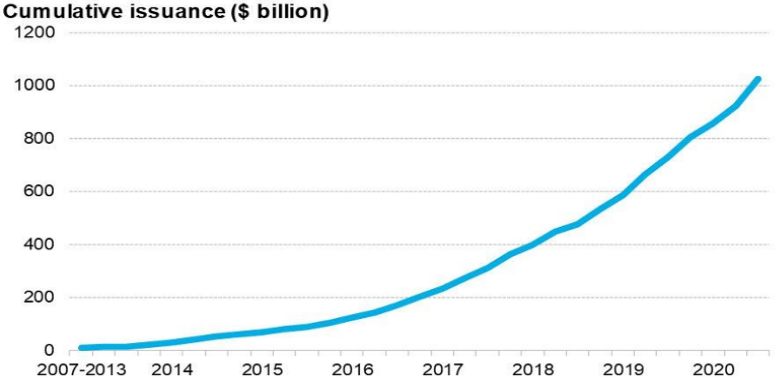
In this piece, Henry and Arrowsmith examine the landmark issuance of €220 billion worth of green bonds as part of funding for its COVID-19 Relief and Recovery Fund. The paper explores the current state of the green bond market, the additional environmental spending that may consequently occur due to the EU stipulating that a certain proportion of the funding must be spent on so-called green projects, and the impact of a federal body entering this market on the regulatory framework. Henry and Arrowsmith concur that the impact of this historical shift in financing will be significant in scope, both in terms of the market and indeed, the environment.

In this essay, Evan Henry and Greg Arrowsmith examine the landmark issuance of €220 billion worth of European Union green bonds as part of the funding for the COVID-19 Relief and Recovery Fund. Henry and Arrowsmth explore the current state of the green bond market. The additional environmental spending that may consequently occur due to the EU stipulating that a certain proportion of funding must be spent on so-called green projects is then analysed. Henry and Arrowsmith conclude that the impact of this historical shift by the EU in financing will have significant consequences, for both financial markets and, indeed, the environment.

Introduction

Green bonds are an asset class pioneered by the European Investment Bank in 2007, identified as a way to raise funds to finance environmentally-friendly projects, such as renewable energy systems, clean water, and public transport. Issuance grew rapidly from 2012 onwards (see figure 1), and though this growth cooled in 2020, between €350bn and €500bn in new green bonds are expected to be issued in 2021 (Nauman, 2021). However, this is still a minuscule portion of overall sovereign debt, with the total green bonds issued by governments accounting for only 3% of sovereign debt issued worldwide in issuer, with other EU members such as Sweden and Poland also to the fore.

Figure 1: Cumulative green bond issuance by quarter, 2007-3Q 2020



Source: BloombergNEF, Bloomberg L.P.

In response to the Covid-19 crisis, the EU agreed on a landmark recovery package in summer 2020, worth over €750bn. Officially titled NextGenEU, €672.5bn of the funds consist of a Recovery and Resilience Fund (RRF), which is essentially a massive fiscal stimulus package that member states will be able to draw from. The agreement of this recovery package was a historic moment in EU integration, with some claiming it was the EU's own 'Hamilitonian moment', a reference to the move by the US Secretary of the Treasury, Alexander Hamilton, to mutualise war-time debt amongst the colonies into federal debt (Hall, Fleming & Chazan, 2020). In the same vein, the 'fiscal hawks' of Northern Europe warily agreed to the creation of a Eurobond, a pan-European debt instrument that mutualised EU debt. Through the issuance of bonds, no longer budgetarily constrained, the EU has expanded its spending capacity considerably, with the NextGenEU programme being the first instance of this.

However, in exchange for bearing the risk of Southern European countries defaulting on their debt obligations, the fiscal hawks insisted on conditions for how the money is spent to further existing EU objectives. One 'string' attached to receiving funding was that 37% is to be spent on 'green' projects, in line with the EU's Green Deal programme, which targets climate neutrality by 2050. Concurrently, it was determined that 30% of the NextGenEU fund will be financed by the issuance of €225bn in EU green bonds (European Commission, 2020). As the RRF already has a condition mandating 37% of spending to be green- which could be as easily funded by conventional bonds- the green bond market's small size means that the relative enormity of the EU's issuance could flood the market with supply. This could cut green bond prices and make it too expensive for issuers of green bonds to raise funds for their environmental projects. We will explore the possibility that the EU's issuance may have an unintended negative effect, both by pricing other countries out of the green bond market and by setting a lax regulatory precedent. We will assess the likely impact of the EU's green bond issuance under four headings: additionality, the effect on the green bond market, the regulatory impact, and the signalling effect.

Additionality

Additionality is a concept related to environmental funding, which poses the question of whether green bond issuance actually leads to additional spending on environmental projects. It is relevant in this instance, as the EU has committed to spending 37% of the RRF on green projects, regardless of whether funding is raised through conventional bonds, green bonds or grants. It is important to understand the mechanisms of the RRF to ascertain the impact that green bond issuance may have on actual EU environmental spending.

Each member state who wishes to draw funds from the RRF must submit a proposal to the European Commission (EC) which is in line with the Green Deal and clearly maps out how their funding of certain projects helps the environment. The EC must then review and pass this plan by a qualified majority vote, whilst any member state with serious concerns over the proposed spending has a 'brake' veto power, where they can insist that funding is withheld until a more in-depth review of the proposed spending is conducted. The funding is provided and reviewed twice a year, so all aspects of spending are under frequent scrutiny, including whether environmental targets are being reached or not (European Commission, 2021).

It is still possible (though unlikely) that, given the significant political pressure that will come from Covid-stricken populations, member states may get away with falling short of their proposed environmental spending commitments. With the issuance of EU green bonds to fund this spending, a failure to enforce the conditions of the RRF could damage not only the EU's political credibility, but also their credit rating. Whilst the RRF does not ringfence green bond funds for green spending, the approval and brake mechanisms make it much more likely that the green project funding targets are met. Meanwhile the issuance of green bonds, despite not increasing the RRF's required level of spending on green projects, mean that it is imperative that the EU does enforce the RRF conditions, as failure to do so could result in loss of credibility as a green bond issuer.

Effect on the Green Bond Market

The effect EU green bonds issuance has on the market for this asset class depends strongly on the size of the 'greenium'. The greenium is defined as the premium investors pay for green bonds in relation to conventional bonds. There is some debate around whether a difference in yield exists between green bonds and conventional bonds. Conventional wisdom says that investors are willing to pay a higher price for bonds with a high Environmental, Social and Governance (ESG) rating. As such, a greenium, which makes borrowing for green projects cheaper, exists. However, this is disputed, with some scholars claiming that there is no incontrovertible evidence of a greenium.

This uncertainty is conclusively rejected by Kapraun and Scheinz (2019), who show in a study of 2114 green bonds that a greenium does exist. They claim that the inconclusive results of Karpf and Mandel (2017) and Hachenber and Schiereck (2018) are due to small sample sizes and exclusion of recent data, which is salient in such a new market. Kapraun and Scheinz show that the size of the premium depends on the credibility of the issuer, with governments and supranational institutions having premia of 31 basis points on average for their green bonds compared to their conventional bonds, allowing for options and liquidity. They also posit that some doubts regarding the existence of a greenium come from corporations dubiously claiming that their bonds are green, when in fact they don't fund environmental projects, and so are not rewarded by ESG-conscious investors who have done their research. Given that the EU will be seen as a highly credible institution, they will likely enjoy a greenium on their green bonds.

The green bond market is currently oversubscribed, especially for high-credibility bonds such as sovereign bonds. In March 2021, the first Italian green bond issuance received €80bn in purchase orders for €8.5bn in bonds, which are trading at a negative premium of 0.15% versus conventional Italian government bonds (Oliver, 2021). Similarly, in 2020, the first German sovereign green bond issuance was oversubscribed by 500%, and trades at an increasingly negative premium of 0.46% (Ravindirane, 2020). With the EU borrowing on the strength and credibility of economic powerhouses like Germany and Italy, but on a much larger scale than their initial offerings, supply may fall in line with demand for high-credibility green bonds. This issuance could reduce the greenium, making it more expensive for other countries to borrow on the green bond market, and potentially pricing some out of funding green projects.

However, this is unlikely to occur for two reasons. Firstly, governments don't borrow using green bonds out of necessity or to borrow cheaply, but rather to signal and meet public demand. Most governments can almost certainly afford to borrow in conventional markets given the current low level of interest rates. It is thus unlikely that any other government's green projects will suffer as a result of the EU's issuance. Secondly, the reduction of the greenium will make it more attractive for investors to buy credible green bonds, as they won't feel like they're sacrificing profits for ESG considerations. Simultaneously, the EU's entrance into the market will increase investor confidence in green bonds and spur demand. This may lead to a growth cycle for the green bond market, with an increase in supply cyclically causing an increase in demand. On balance, any negative impacts from the EU's issuance of green bonds shrinking the greenium will likely be negated by the growth cycle their issuance could spark (Technical Expert Group, 2019).

Regulatory impact

In conjunction with their issuance of green bonds, the EU will also attempt to regulate the market for green bonds. This is partially to ensure that they are held accountable for their own issuance, and partially to solve existing problems within the market. The EU released the technical screening criteria for its own voluntary Green Bond Standard (GBS) in 2019, which updates the UN's global Green Bond Principles framework, creating a more stringent definition of what qualifies as green. The GBS is based on the EU's Taxonomy (2020), a classification system that directs investments towards achieving the Green Deal's goal of climate neutrality by 2050. The GBS is a tangible improvement on existing EU regulations, given the grandiose rhetoric that has emanated about their environmental commitment in the past, despite much investment actually going toward 'brown' schemes and projects (Battison & Monasterolo, 2019).

The way in which the EU can make the biggest strides to ensure that green bond issuance increases green spending is by regulating the green bond verification process. The market's existing issuer-pays verification model, where the bond issuer pays a ratings agency to verify their bond's greenness, is problematic. The issuer-rater transaction creates a conflict of interest, where ratings agencies are incentivised to give a favourable (and possibly inaccurate) rating to the bond. If they don't, issuers can simply turn to their competitors. Proponents of deregulated markets claim that the potential for reputational damage to the ratings agencies will keep them in line. However, this system failed in the lead up to the Global Financial Crisis with mortgage-backed securities, and the same thing could easily occur in a green bond market without regulation. Additionally, this deregulated model sees the problem of divergent ratings for similarly green projects arising due to different ratings systems and metrics across different ratings agencies (Berg, Kölbel & Rigobon, 2020)

The Commission, acting on recommendations from a Technical Expert Group (2019), are planning to make it mandatory for ratings agencies to gain accreditation from the European Securities and Markets Agency (ESMA), in order have a GBS stamp of approval for bond issuers seeking to meet, and indeed inform investors that they meet, EU standards. It will take time for the ESMA to gather the necessary expertise, so in the immediate future there will be a registration process for ratings agencies to gain approval from the European Commission. Whilst this is not as strong a move towards regulation as the ESMA verifying the bonds itself, it is a significant step. In fact, this process is likely more sensible for two reasons. Firstly, the ESMA lacks the expertise and manoeuvrability of private sector ratings agencies, and secondly, it has existing relationships and processes from other interactions with these external verifiers, who are predicted to be relatively small in number for the green bond market (Technical Expert Group, 2019).

The question of whether or not the issuer-pays and divergent ratings problems are solved depends on the stringency with which the Commission, and eventually, the ESMA enforces accreditation. Ultimately, issuers will still pay ratings agencies. If the EU is unwilling to remove an agency's verification licence for approving bonds that do not meet the GBS criteria, the current accreditation and divergent green ratings. The ESMA should also encourage ratings agencies to use common standards and ratings methods, which will reduce transaction costs for investors and increase confidence in the asset class (Berg, Kölbel & Rigobon, 2020). Much will depend on the ESMA's resolve, on how far they will push ratings agencies, and whether they are willing to remove non-compliant agencies' accreditation. If they are strict, this will certainly increase confidence in the green bond market and pave the way for it to expand rapidly, releasing funds for much-needed environmental projects.

Signalling:

Nudge theory suggests that an exogenous factor may influence an environment in a predictable way, unconsciously causing one to behave in a certain way, and that nudges aren't orders, and so can be avoided without repercussion (Thaler and Sunstein, 2008). For example, placing a salad bar before a burger counter in a diner is a nudge to increase healthy eating, whilst banning burgers is not. In the context of the green bond market, the EU's issuance of a huge quantity of green bonds will signal that they are serious about green finance, and nudge the private sector towards adopting this asset class.

The EU's entrance into the green bond market, along with the introduction of a voluntary GBS will nudge existing private sector green bond issuers towards the adoption of higher, common standards for green bonds. It will do so by nudging the public (both the masses and 'representative' investment firms) further towards green investment. How will this occur? With the EU placing trust in green investment and linking its own fate to green bonds, it is signalling its commitment to the green agenda. If premia on green bonds were to skyrocket due to a collapse in confidence in them as a credible asset class, the EU and its reputation would suffer. This show of faith by the EU should encourage investors to trust green finance. Such an increase in investor confidence (and thus demand) would likely reinforce the nudge and further encourage corporations to issue green bonds.

Conclusion

We can see that the EU's issuance of green bonds will have significant and wide-ranging effects on the green bond market, and ultimately, on the environment. Though it may not lead to additional green spending under the NextGenEU programme, it will make the EU more wary of missing their own environmental targets. Furthermore, the enforcement and brake mechanisms the European Commission can use to control these funds means that the EU's green bonds are likely to be pristinely green, setting a new benchmark in the market. Meanwhile, whatever effects EU issuance has on the greenium and the affordability of financing green projects will likely be nullified in the medium-term by the market growth their issuance will inspire. The scale of this market growth and the strength of the signalling effect hinges on how strictly the Commission, and eventually the ESMA, will evaluate the ratings agencies to ensure that their newly-published Green Bond Standard is enforced. Otherwise, unsupervised accreditation processes could lead to investor confidence falling, and stunting the market's growth. However, on balance, it seems that

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The Good, the Bad and the CAP: Reforming the CAP to accommodate the European Green Deal

By Rory Simmington

The Common Agricultural Policy (CAP) has been at the core of the European project since its introduction in 1962. The very goal of which was to support small farms from increasing competition and ensure a stable supply of food in post-war Europe. Simington explores - and highlights the inefficiency of - the policies introduced under the umbrella of the CAP. It is acknowledged that the environment in which the CAP was introduced is much different from the one it experienced as the European project developed. Shifting demographics coupled with advancing technology is recognized as a key determinant of the failure of the CAP. Simington demonstrates how the CAP can be involved in ensuring the European Green Deal is fully implemented in the most effective method. Moreover, Simington shows that unless the EU implements the suggested CAP reforms, Europe's goal of climate neutrality by 2050 may be at stake.

I. Introduction

The agricultural sector holds a unique place in the EU political economy due to its idyllic cultural foundation in the 'family farm'. This cultural role has been protected in European society and politics ever since, even as the sector has evolved through technological progress that rendered family farms outdated. These advancements boosted productivity. However, Europeans' consumption levels did not increase in proportion, leading to excess supply and crumbling prices for farm produce. Efforts have been explored to preserve the familial farm vis-a-vis price supports and income support. Though these measures were short-sighted and failed to solve the fundamental supply problem, with subsidies favouring large farmers and neglecting the very family farmers they sought to protect. This paper analyses these measures and the subsequent policies, while also looking to the future and the available policies to mitigate environmental damage by the sector, so that the Common Agricultural Policy (CAP) can assist in realising the new Green Deal.

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[1]Developments in farming methods, machinery, pesticides, and herbicides rapidly increased yields and farm produce.

II. Key features

When familial farming made up the majority of the agricultural sector in 1955, farming was far more labour intensive than it is today. In 1955 it was responsible for an average of 21.2% of employment across the then EU28, in comparison with 4.2% in 2017 (Baldwin and Wyplosz, 2006, p. 207). Technological progress enabled the formation of large farms with more coherent machinery, plant and animal breeding methods, pesticides and fertilisers which all resulted in increased efficiency and productivity. The European agricultural sector is subject to the same supply factors as any other, such as climate, weather, and storage costs which create instability and in turn price fluctuations. However, the major impact was demand induced. Production exceeded consumption, resulting in excess supply and falling prices. This combination of static demand and excess supply caused prices to plummet. In some senses, the CAP, which was established in order to boost food production was too successful, requiring intervention to maintain high prices and production subsidies to compensate farmers.

III. Price supports

The CAP set a minimum price ‘floor’ for agricultural produce, and as a net importer, placed ‘variable tariffs’ on imports to avoid them undercutting the set floor. These artificial prices set by the CAP were unsustainable in the long run; perhaps agricultural markets should have been left to adjust and reduce production in line with consumption levels. European citizens had to pay a consumption tax on these imports which enabled the CAP to maintain the price floor. This tax was regressive, putting inequitable strain on the budgets of low income households, of which food makes up a large proportion. They also introduced direct payments to farmers in proportion to their output. These production-based payments benefitted large farms with access to machinery, technology and resources. In 2016, 15% of the CAP money went to 80% of farmers, and 85% to just 20% of farmers (Baldwin and Wyplosz, 2006, p. 217). The payments were also inefficient: large farmers already had low production costs due to their scale advantage; and the funds allocated to small farmers was insufficient.

Irrespective of these measures, they failed to tackle the fundamental supply problem and excess supply continued, with the EU becoming a net exporter. In order to maintain the artificial high prices the CAP was forced to make intervention purchases of the excess produce; creating stock piles. The CAP resorted to paying export subsidies to in effect ‘dump’ the excess produce in foreign markets, disrupting global trade. The output-based incentives damaged the environment through overgrazing,

[2] The fundamental problem in the agricultural industry was overproduction. Intervention only served to delay the issue when it could have potentially been resolved by market forces.

[3] The ‘New Green Deal’ or the ‘European Green Deal’ is a framework towards achieving climate neutrality by 2050 while working towards becoming a more sustainable, circular economy.

nd the use of pesticides and fertilisers among other intensive agricultural practices. The price supports did not match the costs incurred on the environment from the externalities of these measures.

IV. Policies and reform to date

After reform at the turn of the 20th century, the CAP returned prices to world prices and removed the price floor, restoring market forces. Direct payments were 'decoupled' from production levels however, payment subsidies fell quicker than output levels and supply remained a problem. Further reform was achieved with the Luxembourg Agreement in 2003, dividing the CAP funding into two new pillars: Pillar 1 for decoupled direct payments; Pillar 2 for rural development. The 1st pillar saw direct payments move to a per-hectare basis, and outlined cross compliance rules governing payments such as soil protection and avoidance of water pollution. The 2nd pillar outlined target areas for rural development such as 'encouraging transition to a low carbon economy' to name one. Per-hectare based payments are problematic: in Britain for example, the "average price of farmland has risen from below £4,500 per hectare to about £16,500 since 2003" (The Economist, 2020). This benefits larger famers who are more likely to be landowners, as 40% of EU farmland is not owned by those who farm it (Baldwin and Wyplosz, 2006, p. 227), leaving smaller farmers empty-handed. Funding under the 2nd pillar is a promising step towards greater sustainability, but as you can see in the table below, it makes up less than a 3rd of the total budget.

V. Agriculture and the environment

The European Green Deal is "a growth strategy that aims to transform the EU into a…, resource-efficient economy, with no net emissions of greenhouse gases (GHG) by 2050,…" (Matthews, 2020). The relationship between the Green Deal and the CAP is inextricable and, "a major leap must be achieved in the CAP ambitions to match the biodiversity targets of the Green Deal." (Guyomard et al., 2020, p. 30). Bridging this gap will not only protect the environment, but will support farmers whose production costs have risen as a result of intensive farming practices, such as expenditure on inputs to substitute for eroded soils, over-exploitation of water sources, a loss of pollinators, and increased risk of pests and extreme weather as a result of climate change. Solving these problems also presents opportunities to farmers whilst working towards the objectives of the Green Deal. Improving soil health for climate

[4] Including the United Kingdom.
[5] These were in effect import duties.
[6] The CAP was forced to set prices above those in the global market in order to preserve farmers' incomes.
[7] Payments to farmers only made the overproduction problem worse, simultaneously causing negative externalities for the environment.
[8] Also known as the European Agricultural Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD).

resilience coupled with reducing dependence on pesticides to protect pollinators are also both prerequisites for an efficient and profitable agricultural sector (Matthews, 2020). Furthermore, the Green Deal creates opportunities in the bio-economy, meaning farmers can supply biomass. By making use of their food waste andproducing biomass as renewable energy, carbon markets will be able to reward farmers for emissions reductions (Matthews, 2020). The 'polluter pays principle' is ineffective for agricultural emissions as any taxes only subtract from the per-hectare subsidy, placing no additional burden on farmers to reduce their emissions. This is another reason why these subsidies must be reformed.

VI. Technological progress

In order to better align the objectives of the Green Deal with the CAP, research and innovation through comprehensive investment is required. The agricultural sector is calling out for its second technological revolution and requires capital to realise this goal. Smart farming, precision farming, and digital farming enable substantial savings on inputs whilst increasing quality and yields (Matthews, 2020). Horizon Europe's €10 billion for research and innovation in agriculture should be replicated by member states (Matthews, 2020). The EU must also apply its hegemonic regulatory power to the sector to increase competition. High standards must be adhered to by competitors to maintain competition and avoid undercutting whilst enabling EU farmers to charge a premium for their produce, all aiding the required technological advancements. Access to the EU market is already subject to product safety and quality standards thus, also applying these to production practices will help recoup some of the higher production costs from the market and enable producers to charge this premium (Matthews, 2020). There have been proposals for a carbon border tax (CBT) however, it would be limited to the sectors included in the Emissions Trading Scheme (ETS) which does not include agriculture (Matthews, 2020). Expansion of the ETS in order to cover agriculture and in turn the implementation of a CBT, would be beneficial measures in reducing GHG emissions.

The CAP is the main source of funding at the EU level in supporting the green transition and this funding is split between the EAGF and the EAFRD or Pillar 1 and 2. The majority of the CAP funds, 290 of 374 billion euros (roughly) from the table below, are disbursed as direct payments to farmers under the EAGF. As previously mentioned, the skewed and inequitable distribution of payments is an inefficient use of funds in terms of funding the ambitious green transition due to the per-hectare framework favouring large landowners.

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[9] Biomass can be converted into bioethanol or biodiesel which can be used as a renewable energy source to power vehicles for example.

[10] The EU should reform farming subsidies in order for carbon taxes to be more effective in the agricultural industry. Additionally, the introduction of a carbon border tax would prevent foreign competitors exploiting their cost advantage, and undercutting European prices.

[11] A scientific research and innovation programme for the EU running from 2021-2027

This funding could be better allocated with the replacement of per-hectare payments with results-based payments for GHG emission reductions and the adoption of sustainable farming practices such as maintaining hedgerows. This would encourage sustainability and enable the CAP to work towards the goals of the new Green Deal. The remaining 84 billion euros is allocated under EAFRD for rural development projects across the sector.

Summary of proposed CAP allocation for 2021-2027

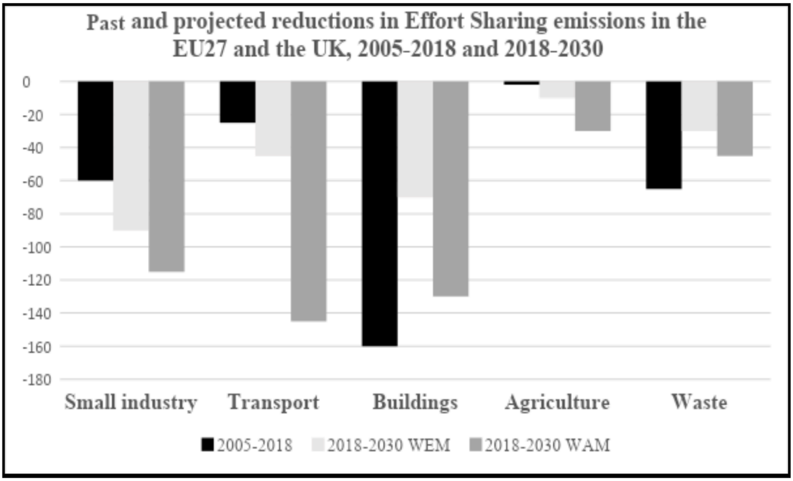
(in EUR million)	2018 prices	Current prices
EAGF (Pillar 1)	258,251	290,702
EAFRD (Pillar 2)	75,013	84,255
Total	**333,264**	**374,957**

Source: https://ec.europa.eu/commission/presscorner/detail/en/QANDA_20_985 (The European Commission, 2020).

Furthermore, progress towards meeting emission reduction targets by 2030 is measured by GHG emissions alone. This doesn't take into account carbon sequestered in the sector through soil cultivation, tree planting, and the creation of carbon sinks. As illustrated in the graph below, in the period 2005-2018 agriculture contributed just 1% in emissions reductions. The light grey bars represent the projected GHG emission reductions for 2005-2018 With Existing Measures (WEM), and the dark grey bars represent reductions With Additional Measures (WAM). Both these past and projected reductions would be improved if the measurement of GHG emissions accounted for carbon removals. Regardless, a rapid increase in investment and action is needed in order to improve the projections for the agriculture industry in comparison with the other industries listed. This could be aided by amending measurements of GHG emissions to account for carbon removals, as the agricultural industry has a key role to play through the creation of carbon sinks such as the maintenance of hedgerows, among the other measures mentioned.

[12] Natural or man-made reservoirs where carbon accumulates and can be stored thus, removing it from the atmosphere. Natural sinks can be found in soil or hedgerows for example..

[11] WEM indicates the projected reductions under the status quo, and WAM indicates the projected reductions with the implementation of new measures such as a CBT.



Source:
https://www.eea.europa.eu/themes/climate/trends-and-projections-in-europe/national-action-across-all-sectors (European Environmental Agency, 2020).

VII. Conclusion

The CAP has come a long way from short-sighted market interventions and dumping in foreign markets, though it still has leaps and bounds to go in order to meet the objectives of the Green Deal. It first must amend its funding model, moving away from simple per-hectare subsidies towards results-based payments focused on GHG emission reductions and sustainable farming practices. This will improve the effectiveness of carbon taxes for continued malpractice, and will enable the CAP to reward sustainable and environmentally-conscious farmers while aligning with the Green Deal. Secondly, the EU and national governments must invest more in research and innovation in the sector. The new EU Taxonomy, a clarification system for sustainable economic activity, serves as a basis to direct loans and capital flows towards sustainable investment, and will assist in directing resources to the appropriate projects (Guyomard et al., 2020, p. 22). With this new taxonomy and substantial investment, the agricultural sector can make a smooth transition towards greater sustainability. The CAP has managed crises before; with improved efficiency there is no reason it cannot again.

[14] It contains 6 objectives which are linked to the Green Deal and 4 additional “requirements for economic activities to be considered environmentally sustainable.” (Guyomard et al., 2020, p. 22).

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Economic Convergence: The Role of Institutions and Developed Countries

By Luis Faria

Institutions undoubtedly play an important role in shaping an economy's growth prospects as they meander through economic development and the turmoils that accompany such evolution. Faria poses a simple question; what are institutions? This lays the foundation of this paper. It is from this simple question that identifies a success-harbouring institution. Democratic systems are discussed as a key element in promoting economic development. This ideology is then employed within the scope of EU institutions, and how such institutions have nurtured developing economies to bridge the disparities between nations in the bloc. Lastly, the failings of monocropping are discussed and how the developed world has shaped institutions in the developing world, for better or for worse.

I. Introduction

The role of institutions in economic development is a topic that has been discussed extensively in modern academic literature. Neo-classical economic theories have been replaced, such as the Harrod-Domar model of economic growth, which neglected a vital element; the importance of both formal and informal institutions that structure human interaction (North, 2003). These earlier models assume that functioning institutions do exist, which underpin all economic activity. Often, this is not the case in developing countries. This essay will focus primarily on the impact that institutions have on economic growth, examining; what institutions are, what determines whether institutions are 'good' or 'bad' and how these social and political infrastructures have developed in a historical context. Further, the influence that developed countries have had on institutional change in the developing world is discussed.

Literature focusing on explaining what institutions are, the key characteristics that strong institutions show and the influence of these on economic and social outcomes will be reviewed first. Following this, we will assess the impact of of the introduction of EU institutions to new members and look at why these may or may not have produced favourable outcomes. This case study will focus on Ireland and Portugal's development since joining. Discussion of the development aid given to Less developed countries (LDCs) will follow this European example, centring the analysis on the dos and don'ts of aid delivery and the key institutional factors in this equation. Finally, the actions of developed countries will be scrutinised, as we look at how a better understanding of institutional development is needed in order to improve aid efficiency and how we can modify our aid delivery to produce more favourable outcomes, before offering some concluding insights.

II. Literature review

What are institutions? Some philosophers, such as the architect Louis Kahn discuss in abstract terms the idea of institutions, suggesting that they exist to serve our very human will to be and to express (Lobell, 1979). Yet, he defines the "Houses of Institutions" as integral to societal function in the making evident this yearning, through the built environment. In our cities - the most advanced and complex expression of human endeavour - the silhouettes of Temples (the minaret of the Mosque/ the spire St. Patrick's Cathedral), Courthouses (the Four Courts), Universities (Trinity College), Stadia (Landsdowne Road), Financial Control (the Customs House), all delineate the functioning of a particular society and reinforce its workings. However, for this discussion, we will take a more formal, economic definition. Dani Rodrik, in his 2000 article "Institutions for high-quality growth: what they are and how to acquire them", gives a broad definition of institutions, as "a set of humanly devised behavioural rules that govern and shape the interactions of human beings". Taking these ideas, we can begin to understand the importance of institutions in determining economic outcomes, working as a sort of intermediary to reduce the costs (both monetary and non-monetary) of operation in all sectors of society, such as politics and business, but also education and more informal aspects of society. Institutions exist to reduce uncertainty. They provide a set of rules, both formal and informal (which may not always be easily defined) that incentivise and disincentivise certain behaviours, and if these institutions are suited to the environment, they allow us to interact in a concerted way (North, 2003).

When looking at literature on institutional development, it's evident how important they are in achieving sustainable growth. Hall and Jones' (1999) highlight the vital role institutions play in determining the long-run growth rates of an economy and explains that output per worker is to a great extent driven by institutions and social infrastructure. These ideas are reinforced by Cavalcanti and Novo (2005) who suggest that on average, in any developing economy a 1% improvement in institutions (measured using institutional indexes) will lead to more than a 5% increase in output per worker. These papers show just how fundamental institutions can be in achieving economic convergence in developing countries.

It is certain that stronger institutions will result in improved output, growth and economic outcomes. However, achieving these effective institutions has proved difficult for many economies. In order to comprehend how we can achieve this; we must first discuss what makes a 'high-quality institution' and which are the most important for growth. Rodrik (2000) outlines these as regulatory institutions, institutions of macro stabilisation, social insurance and conflict management. And, arguably most importantly, property rights. It seems quite intuitive that these institutions are needed to prevent fraud, protect control of returns to economic activity and promote social cooperation and trust. These are institutions that we can see clearly in almost all high functioning, efficient economies, but are often non-existent in less developed countries.

III. Participatory institutions

What are the factors that determine whether institutions form to promote or restrain economic development? Both Evans (2004) and Rodrik (2000) agree that participatory regimes are key in delivering strong institutions. That is to say that engagement in political discourse and the exchange of ideas in the public domain is a vital component of institutional development, so we should look to foster institutions that promote and improve individual's ability to choose. Democratic systems are shown to yield higher growth, more stable outcomes and improved wealth distribution, and an association between political participation and wages can be shown throughout the economy.

One example we can take is Porto Alegre in Brazil, where a deliberative democracy, in which citizens were given direct influence over decision making at a regional level, was introduced in 1989 in order to counter corrupt allocation of funds. In this example, we can see the positive impacts of increased political participation. Despite remaining growth neutral, the regions in which this deliberative regime was introduced showed major improvements in public services and infrastructure, higher human development and also gave those who partook in discussions financial and debating skills that they likely would not have otherwise acquired. These positive, real-world results show how participatory institutions can create an improved climate for development, giving non-elites a level of control over institutions and how resources are distributed.

Alongside this, Porto Alegre is recognised as one of Brazil's greenest cities. It has seen improvements regarding environmental protection and sustainability practices, such as the city's particularly efficient public transport system. Protecting the environment and reducing our carbon footprint is one of, if not the greatest challenge facing society today, and one that in many ways global capitalism is failing to address ((Friant, 2019). Given that this has taken place in Brazil, a country notorious for corruption and political backwardness, the potential benefits of deliberative democracy in developing countries with similar issues are plain to see.

IV. EU Institutions

One way in which we can observe the direct impact of institutions on emerging economies is by looking at the development of smaller EU nations since they have joined. By joining the EU, a country is provided with membership

to strong, well established international institutions such as the ECB, the European Court of Justice and the European Parliament to name a few. Given the above discussion, access to these institutions should in theory give rise to improved economic growth and performance in new member states.
Ireland joined the EU alongside the UK in 1973, while Portugal joined later, with its Iberian neighbour, Spain in 1986. Both countries showed significantly lower levels of GDP per capita compared to the core European countries such as Germany and France prior to joining the EU. However, the rate at which they have converged to the European average has varied greatly, with Portugal remaining below the average still today. Of course, introduction into the European Union will have had immediate benefits for both countries economically and we see this particularly with the jump in Portugal's GDP in the years following 1986. The overall impact of European institutions will have taken time to become clear. Despite the influence of other factors, such as Ireland's favourable corporate tax rate that has attracted many of the world's largest multinationals to set up operations in this country, boosting employment and slightly inflating GDP figures, it is clear to see that EU membership and more specifically EU institutions have allowed for Ireland's output to grow almost exponentially through the 2000s and once again following the global financial crisis.

So how can we account for Portugal's sub-par growth trajectory compared to Irelands? Given that prior to becoming members of the EU both countries saw similar levels of per capita GDP, we should, in theory, expect to see similar progress from both countries, so why isn't this the case? Lains (2003) discusses how the overall influence of joining the EU on Portuguese growth was relatively small, pointing at investment in both human and physical capital as the main driver of growth around this period. Another analysis suggests that it is mostly institutional factors that have held back Portugal's long-run development, implying that Portugal has been unable to fully realise the potential benefits that EU institutions can offer (Amador, 2007).

V. Problems with 'Monocropping'

This brings us to the idea of Institutional monocropping, proposed by Evans (2004), which proposed the idea there is an 'optimal' way to organise our institutions to produce growth. That there is an ideal blueprint which can be followed and that we can expect the same results in different economies. This concept will be discussed further, particularly in relation to LDCs and the varying (mostly unsuccessful) results of simply importing an institutional blueprint and attempting to make these countries follow them. Returning to our discussion on Portugal, however, it seems clear that despite other factors at play, Portugal's economy and society has not been as suited to the European system as Ireland's. This is related, to a great extent, with Portugal's main industry being manufacturing of textiles and machinery, traditional areas that have not expanded greatly through technological progress, as well as the country's low capital to labour ratio (Amador, 2007). In comparison to Ireland, where progress has been facilitated through high levels of education, as well as the fact that Ireland is an English speaking country and its historic cultural ties (particularly with the United States), Portugal has been unable to welcome and develop new industries to the same extent. The main takeaway here is that what has worked in one country may not be as effective in the next. Understanding of local/ regional factors and the point at which an economy is at in its development is key when introducing new systems and regimes, and it seems that the European way of operating may not be entirely suited to Portugal, or at it has not enabled the Portuguese economy to flourish in the way it has for the Irish.

VI. Institutions and aid

Progressing our discussion, we can begin to look more specifically at the role played by institutions in the developing world and how we, as developed countries have influenced institutional development for better or worse in these countries, mostly through development aid. Before we discuss the interplay between institutions and aid, we must first look at the current state of global aid delivery and the factors that have historically reduced aid effectiveness.

In nominal terms, the level of Official Development Assistance (ODA) or aid has been increasing since the mid-nineteenth century, however, these figures did drop significantly following the global financial crisis. In Ireland, Irish aid (Ireland's official development aid programme) provided $976 (measured in 2018 USD) in developmental aid (which mainly focused on Africa), representing about .31% of GNI (OECD, 2020). Despite almost all developed countries across the globe allocating substantial sums of money to aid each year, the overall benefit of this to LDCs is still contested, with many authors arguing that aid delivery has generally been quite inefficient.

The way in which we deliver aid has been highly scrutinised, and in many cases fails to help the individuals towards whom it was initially directed. Inefficient aid delivery can occur for several reasons, the most prominent of which is the principal-agent problem. In democratic states, leaders and people in power are incentivised to deliver the aid that they receive to the intended beneficiaries as they need their support in order to remain in power. Unfortunately, it is often the case that poor countries, towards which aid is directed have the most undemocratic, corrupt regimes in place, and non-elites will have little to no political voice in these states. As such, ODA will often struggle to reach those who really need it. This is compounded by a total lack of transparency, both in the recipient country and sometimes in the donor agencies (in the form of a lack of data made publicly available), which prevents us from understanding how effective a given aid project is (Easterly & Pfutze, 2008). Other elements of aid delivery, such as avoiding these autocratic regimes and reduction in tied aid, food aid and technical assistance (which are considered the least effective aid channels) as well as increased aid specialisation to reduce transaction costs, must also be an area of focus for aid agencies if we wish to improve delivery (Easterly, 2007).

Research by Isham et. Al. (2005), which focused on the performance of aid-financed rural water supply projects, financed by varying donors in 49 LDCs across three continents, highlighted the important role that social and political institutions play in determining the success of aid projects, suggesting that favourable institutions have a significant impact on government efficacy. Analysis of aid projects financed by the World Bank agrees with this. It suggests that political institutions, particularly the civil liberties of citizens is a vital precondition for successful implementation of aid schemes, as it creates government accountability (Isham, et al., 1997). What does this information imply? Essentially, these studies show us that to achieve the most effective possible outcomes of aid delivery, we will need to offer it to countries that have strong enough institutions to make use of this monetary/non-monetary assistance. This poses a major problem, given that as previously mentioned, it is often the economies that need aid the most that will have the weakest institutions. How can we get around this issue? Should donors simply avoid giving aid to countries with sub-par institutions? This seems to be counterintuitive if the goal in aid delivery is to help with economic and social convergence of the worst-off. This suggests that we should first focus on helping to develop institutions in LDCs, so that future aid will be more effective. This has proven extremely difficult in practice and there are numerous examples where this has created unfavourable outcomes.

If we consider the failings of the Washington Consensus; a set of ten policy reforms proposed by British economist John Williamson in 1990 which focused heavily on institutional reform to harness the power of the free market in developing countries (Williamson, 2004). Mostly implemented in Latin America, the reforms were rushed and a period of significant and sustained economic turbulence followed in a number of these countries.

The Washington Consensus highlights the importance of understanding the factors at play that are specific to the economy where institutional change is needed and the major pitfalls of institutional monocropping and use of an institutional blueprint. It further reinforces the recommendations of Rodrik (2000, 2002) and Evans (2003) of promoting locally-driven, participatory institutions for stronger growth. Institutions are deep-rooted and not easily moved. Though maybe we can propose and build new formal institutions, it is the more informal norms and networks of power that will always govern how institutions function and these are significantly more difficult to see and understand, and as such, more difficult to modify. There is no cookie-cutter institutional framework that can be superimposed on any developing economy to promote growth and stability and make the country a stronger vehicle for aid.

Amongst these issues of institutional development, it is important to consider the biases in our perspective as developed countries and how much we know about optimizing these. Despite pushing for growth in LDCs, oftentimes the advice extended by international financial institutions are extremely biased towards an idealized neoliberal system, the benefits of which are highlighted policies and standards in place across LDCs, these countries should in principle increase their FDI attractiveness, be easier to trade with and in time reach similar levels of output as countries in the first world (Rodrik, 2002). The obvious bias in this sort of framework is that in turn, these institutions should benefit the developed economies, who will have new markets easily trade with, and often this is enforced through aid conditionality. As we have discussed, the reality is that this is seldom effective in practice. Following the failings of the Washington Consensus, an 'augmented' version of the paper was proposed, with a new and improved blueprint for LDCs to follow, highlighting just how little was learned about institutional development and the need for a total reshaping of perspective.

VII. Conclusion

Institutions are layered. Legislation designed to dictate behaviour and interaction often masks the reality that the informal will always hold power over societal outcomes. Change cannot blossom by imposing a template for individuals and the collective to follow. The restrictive approach used by international financial institutions in the past is clearly biased towards a neo-liberal approach; which suits the developed world. This has been shown to be an inefficient way to grow institutions. To promote institutional change that can truly improve outcomes both economically and socially and create institutions that are efficient in the local environment, a greater level of understanding of norms and mores, as well as trial, error and experimentation are necessary. Similarly, the failings of monocropping, and more specifically the success of participatory regimes also highlight issues we are still failing to deal with in the developed world, particularly in terms of climate change. The improvements discussed in Porto Alegre's level of climate action through deliberative democracy show how the developed world could learn in turn and benefit from allowing institutions to give people at all levels of society, not just the political elite, more of a voice in policy determination.

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Economic Convergence: The Role of Institutions and Developed Countries

by Ryan Grunwell
Senior Sophister

In this paper, Ryan Grunwell outlines the lessons that the Eurozone should take from the two major former exchange rate regimes historically maintained across the global economy. The paper blends economic history with analysis and ultimately goes a step further in providing policy suggestions based on the prior successes and failures of both the Gold Standard and the Bretton Woods system. This thorough dissection of the issues at hand is exemplary work, and is well-deserving of a place in this year's Student Economic Review.

Introduction

The theoretical bases for which countries operating under the Gold Standard and those operating under the Bretton Woods system adjusted were surprisingly similar upon close inspection. In each case, the overwhelming majority of outcomes traditionally associated with each were largely determined by exogenous factors. Despite this, both systems serve as examples for the Eurozone, in that successful international monetary arrangements are predicated upon states cooperating, as opposed to pursuing their own interests. Therefore, the primary lesson herein, and the thrust of this essay is that international monetary frameworks ought to develop more robust mechanisms for enforcing cooperation. To arrive at this conclusion, I will first provide an exposition of the Gold Standard and subsequently the Bretton Woods system, and the associated benefits and harms of each, identifying how outcomes were determined exogenously in the majority of instances. From this point, I will then focus my argumentation on how we can learn the most from the breakdown of these systems, after which I will identify policy recommendations conducive towards this goal.

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[1] While there is an important debate emerging in the literature regarding whether the Euro itself is damaging to Europe, this essay will make no normative claims regarding the benefits and harms which accrue by virtue of membership, thereby rendering this outside the scope of this essay.

grounding, insofar as short run variance in price levels were actually higher in the United States during the Gold Standard era, it was simply the case that these fluctuations were determined by either events exogenous to the system (for example, wars) or sudden increases in gold production. The extent to which this was actually true, only really held insofar as central banks had a diminished capacity to bring about sharp fluctuations in the price level (for example, hyperinflation), through discretionary monetary policy (Bordo, 2008; Lothian, et al, 2013).

Regarding exchange rates and uncertainty, "[t]here was a penalty for running out of reserves (and being unable to maintain the fixed value of the currency), but no penalty (aside from foregone interest) for accumulating gold. The adjustment mechanism for" countries which ran persistent deficits was a deflation in the domestic price level, rather than a change in the exchange rate (Eichengreen & Temin, 2010). Therefore, states were incentivised to operate in a neo-Mercantilist manner - whereby they intentionally sought to constantly increase their supply of gold, in order to maintain as large an adjustment buffer as possible. In theory, there was a countervailing incentive to avoid the inflationary pressure which would accrue via the price-specie flow mechanism (Hume, 1742). In practise, and particularly after World War 1 - the point at which countries began to lose faith in the Gold Standard - countries intentionally stockpiled gold as a protective buffer against the risk of currencies losing their convertibility. As a result of deflation, and given that countries which ran persistent deficits also tended to be debtor nations, it followed that the real interest rate faced by states on any given debt was now higher. This forced states to try to reduce spending in order to avoid a rising cost of debt, which itself furthered the deflationary pressure on these economies. To this effect, maintaining the Gold Standard constrained the set of fiscal policy responses which states had to various shocks. Moreover, monetary policy was similarly constrained as a result of a collective action problem which emerged on the world stage, whereby countries were forced to attempt to increase their stock of gold by raising interest rates, which further exacerbated the existent cyclical deflation previously described. The set of causal relations described were particularly pronounced when multiple states fell into these deflationary spirals, thereby further reducing aggregate demand and making their effects felt most acutely, as was the case during the Great Depression (Eichengreen & Temin, 2010).

However, whilst the conventional wisdom is that the capacity of the Gold Standard to respond to asymmetric shocks at specific points in time ultimately led to its unraveling, attempts to model whether it was a fundamentally destabilizing regime have proved inconclusive (Lothian, et al, 2013). That is to say, the extent to which macroeconomic volatility can be attributed to the Gold Standard per se during the classic Gold Standard period of US history from 1870 - 1912 (Eichengreen & Temin, 2010) is dubious. After deriving an estimated DSGE model for the relevant periods, and transposing on to it a Federal Reserve Taylor Rule borrowed from Great Moderation, the following claims were found: i) inflation volatility was reduced; ii) real money supply and interest rate volatility were higher;

iii) no net change in output volatility or welfare. Overall, evidence seems to suggest that the American economy was simply subject to volatile demand and supply shocks in the Gold Standard era (Bordo & Schwartz, 1997). Going even further, there is evidence to suggest that the Gold Standard could have acted as a shock absorber to fluctuations in such variables (Chernyshoff, et al. 2005). Therefore, much of the high levels of macroeconomic volatility of this era was attributable to the high volatility of exogenous shocks hitting the economy rather than to the monetary policy regime.
Although during the Great Depression, negative outcomes were exacerbated by an ideological fixation on maintaining the Gold Standard, the performance of the Gold Standard in response to the majority of shocks differed meaningfully in the manner described in the previous paragraph. Therefore, the primary lesson we ought derive from this historical experience is the preeminent import of coordination, as opposed to competition, between states in monetary management.

The Bretton Woods System

The Bretton Woods System was established in 1944 by 44 nations who sought to begin a coordinated, international approach to global monetary relations - its expressed purpose was to facilitate post-war reconstruction and economic growth through the creation of a "fully negotiated monetary order, intended to govern currency relations among sovereign states" (Cohen, 2009). As a system of monetary management, Bretton Woods nominally operated as an adjustable peg exchange rate regime, whereby the value of the currencies of the world were based on the US dollar, which itself was convertible into gold at $35 per ounce, along with capital controls (Bordo, 2017). The purpose of its introduction was both to facilitate international cooperation in monetary management, but also to provide domestic monetary authorities with the means to maintain full employment, whilst preserving both exchange rate stability and autonomy. Moreover, new international monetary agreements were enacted such that each country would adopt policies that maintained the exchange rate of its currency within a band of fixed values in terms of gold.

Examining the global economy's post-World War II recovery might lead us to believe the period of the Bretton Woods system had a positive influence on the global economy and was therefore relatively successful. However, we ought not confuse a correlation for a cause - the Bretton Woods system of monetary management also emerged alongside those organisations dubbed the 'Bretton Woods institutions' - the International Monetary Fund and the International Bank for Reconstruction and Development (which later became the World Bank). These institutions facilitated the expansion of trade, exchange rate stability, international financial transactions, and economic development broadly. Combined with the Marshall Plan - the "$113 billion in grants and loans" (Bordo, 2017) transferred from the United States to Western Europe following World War II - this translated into years of exceptional performance and financial stability across the global economy.

The two primary, underlying flaws of the Bretton Woods system were A) the gold-dollar exchange standard, which placed the US constantly on the verge of a convertibility crisis and B) the problems associated with the adjustable peg (Bordo, 1997). It should be noted that these flaws, ultimately caused the end of the Bretton Woods system, and that they in turn, are broadly the products states pursuing their own ends to the detriment of others. In terms of the comparative disvalue derivable from these flaws, given that a variation of the convertibility crisis dimension of A) affects both the Bretton Woods system and the Gold Standard, it follows that the dollar specifically is what matters here. To this effect, the United States' policies at the time reflected a deep-seated neglect of the central role they played in the international monetary order. That is to say, the appropriate policies that they ought have pursued in this period were those which emphasised price stability - as opposed to the inflationary policies which they did pursue (Bordo, 2017). Alongside this, the Federal Reserve sterilized all dollar in-flows and out-flows, thereby supplying domestic price stability whilst exporting inflation to those states which ran a surplus with the US.

The issue with B) might appear prima facie mechanistic, but the reasoning behind which it was the case is also extremely similar to that provided on why countries had an incentive to stockpile gold, and how those that ran persistent surpluses did, even if doing so produced externalities which hurt both the system as a whole, and in turn, that country itself. The answer lies in the deep-rooted propensity of states to act in line with their perceived interests. This is because exchange rates were ultimately determined through a process of applying to the IMF for an adjustment on the basis of a currency requiring a correction from a 'fundamental disequilibrium'. Given that currencies were overwhelmingly adjusted in the face of crises, this effectively rendered exchange rates fixed. The issue herein was that countries which ran permanent deficits (for example, the UK) would be more likely to face currency crises, in which their currency would be adjusted. Conversely, for high-productivity countries which ran balance of payments surpluses (for example, West Germany) there was little incentive to apply for an adjustment - as their currencies would have been adjusted upwards, thereby hurting their export-oriented industries. For example, the Deutschemark was adjusted upwards only once throughout the duration of the Bretton Woods system (Bordo, 2014).

Despite any nominal co-operative dimension to these systems of monetary management, there remained political incentives for states to pursue their own interests economically. Therefore, in both cases, states were faced with a collective action problem regarding how they ought to react to asymmetric shocks. Prior to the collapse of the Gold Standard, central banks aggressively raised interest rates in the pursuit of gold inflows, to the detriment of employment at home and abroad. Likewise, the United States was ultimately incapable of resisting the temptations of domestic political pressures for spending on social services and the pursuit of containment policies in opposition to the USSR. In both contexts, pursuing this incentive produced negative externalities for both the respective currency regime and the global economy as a whole.

Policy Recommendations for the Eurozone

The current situation with the Euro is suboptimal, as Eurozone states lack the requisite depth of response mechanisms to sufficiently be considered an optimal currency area. Given that the value of Eurozone interest rates is determined by the aggregated preferences of the Eurozone members, it follows that no one state has control over monetary policy. Therefore, there are three other possible adjustment mechanisms to asymmetric shocks.

Firstly, labour flows - however this is not feasible in the context of the EU. Only 4% of EU population currently reside in an EU state other than that in which they were born (Eurostat, 2018). Conversely, in the United States, around 30% of natives reside in another state within the union (Molloy, Raven, et al, 2011). This is broadly due to a composite set of linguistic, cultural and soft institutional barriers existent across the EU. Therefore, labour flows cannot act as an effective response mechanism, as they do in the United States. Secondly, there is deflation of domestic prices, as was the case under the Gold Standard. Thirdly, expansionary fiscal policy - however, this is complicated by the Stability and Growth Pact, which nominally precludes member states from running large government deficits. Given that none of the three mechanisms described are mutually exclusive - they all occur, but to varying degrees, it follows that the autonomy of states in the Eurozone is substantially impinged. This is because domestic deflation increases the real interest rate of all government debt, thereby raising the cost associated with borrowing, which in turn adds a further deflationary pressure to the economies of countries which persistently run deficits. Given the small scale of labour flows, combined with EMU imposed limitations on deficits, this combines to cause a policy strait-jacket for these states, from which they are forced to impose deflationary fiscal measures.

This, combined with the manner in which state actors tend to respond to asymmetric shocks within currency groups, warrants a policy resolution. It is clear that what is needed are more robust cooperative frameworks within the Eurozone if the project is to remain viable in the long-run. To this effect, there are two sets of policy available, without ending monetary union: A) implementing a fiscal union and B) changing the mandate of the ECB.
Option A) seems to address the issue of states prioritising their incentives and acting accordingly. In this context, fiscal union internalizes the externalities associated with how economic actions engaged in by states affect other states within the Eurozone. The issue with this option is threefold: firstly, an EU-wide concern about sovereignty and perceptions of the legitimacy of a federal EU, and secondly, a reticence to commit from countries that persistently run surpluses (for example, Germany) to commit themselves to investing substantially more of their resources into states which they perceive to lack fiscal discipline. Thirdly, and most importantly, is what shape a fiscal union would take

and how to manage an expansion of the EU in a manner which is sustainable.

If such a fiscal union were pursued, and perceived as an overreach, it could jeopardize the long-run potential of the European project itself. I think all of these concerns could make this option politically untenable unless the expanded powers granted to the EU were proportionate to the issue that requires address. In light of such concerns, the ideal solution would constitute simply an expanded role within the European Structural and Investment Funds. This would change the mandate of this entity in two specific ways: i) generate additional revenue through a tax levied on countries which run balance of payments surpluses, and distribute all additional revenue to those that run deficits; and ii) include maintaining employment at a regional and state as a mandate of the fund. Within this structure, in order to actively encourage cooperation between states, the costs of non-cooperation would need to be raised by the EU.

However, as recent history has demonstrated, it is unclear how disputes between states and the EU can be effectively resolved. Two potential answers to this question are: x) changing the rules regarding vetoes and consensuses regarding disciplinary procedures and y) more harsh penalties - including temporarily removing voting rights on certain issues, temporary suspension from the customs union and fully removing access to certain funding programs. In conjunction, raising the probability of penalty and the severity of the penalty imposed upon states, we can raise the costs associated with non-cooperation, in turn granting the EU greater intrastate fiscal policy autonomy, whilst avoiding the costs associated with attaining political union. This allows us to internalise the relevant externalities existent in policy-making between states which permanently run surpluses and those that run deficits in the Eurozone.

Option B) is less radical, and the most plausible policy recommendation for the Eurozone. Simply, full employment ought to be weighted by the Taylor Rule employed by the ECB more heavily than is currently the case, whereby employment is only weighted insofar as it is endogenous to the price level. This would most likely look something like that employed by the Federal Reserve. This ought to be done because it places comparatively more weight on the needs of those countries engaged in permanent deficits, facing chronic levels of unemployment, and most importantly, the growing threat of populism. Doing so will enable the ECB to secure the future of the European project - in the limited capacity from which it can do this.

Conclusion

When monetary regimes break down, the destruction of that system plays a direct, causal role in harming the real economy. The purpose of this essay was to identify the most important lessons that we can take from economic history to this effect with regards to preserving the sustainability of the Eurozone.

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Dublin' the population: the case for radical national population growth

by Tomas O'Connell
Junior Sophister

Tomás O'Connell has the honour of winning the inaugural John O'Hagan award for the best Irish economic policy essay. It is fitting that this essay would win the inaugural John O'Haganaward. In calling for policymakers to consider population as a policy lever, and in arguing that policymakers should pursue "radical" population growth, O'Connell's essay displays that uniqueness and ambition in thought that has distinguished the Student Economic Review as a result of decades of fostering and stewardship by Professor John O'Hagan.

I. Introduction

The legacy of the Great Famine and subsequent population decline thereafter has resulted in the national population being a subject of unusual policy (and popular) interest in Ireland. The unique historical significance and dynamics of population on this island lends population to be used almost as a measure of policy success or failure, and even as a policy aim in itself. This essay argues that Irish policymakers should take population seriously as a policy variable. The Irish population is something that policymakers can and should radically increase.

In our major cities but especially in Greater Dublin, too many people and too much economic activity want to locate, which produces an overheated housing market and pressure on infrastructure and public services. In rural Ireland, too few people and too little economic activity want to locate, which in turn produces a vicious cycle of brain drain, ageing, and population stagnation. The current policy response to these problems involves making costly capital investments to cope with infrastructural pressure in Dublin, and making available a system of subsidies to bring jobs to rural Ireland. These are coping strategies that do not tackle the dynamics of population that are at the root of these problems. This essay argues that treating population as a policy lever is a logical response to Ireland's predicament, and that deliberately and significantly increasing the population of Ireland is not only feasible but desirable.

II. The Problem

Dublin

Dublin has become increasingly populous relative to the rest of the country, and this trend is set to continue into the future. Just under 2 million people live in the Greater Dublin Area (counties Dublin, Meath, Kildare, and Wicklow), which is about 40% of the State's population, and more than half of its GDP (Dublin Chamber, 2019). The increase in population and relative economic weight in the Greater Dublin Area has created two distinct outcomes – increased demand on commuting infrastructure, and upward pressure on housing prices.

The Dublin commuter belt has gradually expanded outwards over time largely due to an increase in housing prices which has pushed many buyers to commuter towns. Ahren & Lyons (2021) find a correlation between rent increases and commute times in Dublin, which is borne out anecdotally: what used to be considered the commuter belt extended to places like Swords or Ashbourne, but many Dublin workers now commute from as far afield as Portlaoise and Drogheda. The sheer number of people moving in and out of Dublin city every day has increased demand for infrastructure. New lanes on the M50 to handle increased traffic flows, LUAS Cross-City, improved bus corridors, proposed extensions of the DART line to Balbriggan and Maynooth, as well as the perpetually in the pipeline Dublin Metro, are all attempts to better manage this commuter belt population growth.

People need to commute these distances because in large part the increased population of Dublin (and particularly of high-earners willing to pay for expensive housing) has not been met with an adequate increase of supply in housing, which has pushed prices upwards and made homes in the inner and middle suburbs unaffordable for large sections of buyers. Infrastructural pressure could, in theory, be managed by continually making coping investments in infrastructure and housing supply forever, but the underlying problem would persist – Dublin would continue to attract a greater proportion of the State's population and economic activity, leaving much of rural Ireland in continued decline.

Rural Ireland

Outside the Greater Dublin Area and the State's major cities, patterns of economic activity differ from region to region. Rural Ireland is not homogenous, but some generalisations can be made. Public infrastructure is often less developed, average incomes are lower than in Dublin, and there are fewer job opportunities available. The economics of location indicates that business activity and investment naturally wants to locate near Dublin where there is excellent infrastructure and lots of consumers and graduates. The main push factor away from Dublin is the high cost of rent, so economic activity that doesn't need to be located in major urban areas - particularly certain types of manufacturing - has traditionally been the main non-agricultural employer in rural Ireland, usually located in rural towns. Decline in manufacturing has produced a decline in the population and economic weight of rural towns in Ireland, and O'Donoghue et al. (2014) find that "Whilst there are notable and important exceptions, rural towns that have experienced sustained growth in population tend, regardless of their size, to be near or accessible to larger rural towns or the five cities". O'Donoghue et al. (2014) also note interestingly that the decline in rural industries like manufacturing has produced a sharply gendered effect, with outward migration of males being significantly higher than that of females.

Rural areas that are not fortunate enough to be near larger urban centres have suffered from substantial youth migration, which is the basic population problem of rural economic development. Without young people willing to stay in rural areas to work, start families and invest in communities, it can be almost impossible to avoid a trap. A declining population makes it difficult to attract investment and makes it inefficient to provide costly public infrastructure when population density cannot support it, which in turn makes it even more challenging to attract employment and retain young people. Rural young people moving to large cities and staying there often after completing a third-level education, or simply emigrating altogether, creates a brain drain phenomenon where talented and ambitious people concentrate in large urban centres and deprive the more isolated rural areas of the essential human capital required to escape the trap of rural underdevelopment.

III. More People Is Good

Malthusian economic thinking is very ingrained in how most people intuitively think about population. The idea that more people would stretch our finite resources thinly makes sense in a day-to-day context and is perhaps somewhat in-built into how human beings see the world around them. Before the Industrial Revolution, the main determinant of human standards of living was the availability of land. More land per person meant more resources, and more people meant fewer resources per person.
This thinking is intuitive, but it misses the point that a modern developed economy is far more productive than an agrarian economy and that the main factor in standards of living in a services-based economy is productivity, not access to resources. Our ability to innovate new productive technologies is what has enabled economic growth since the Industrial Revolution: better technology allows us to produce more and better outputs with fewer inputs, which raises standards of living.

Productivity
Small populations are inherently limited in their productivity because they cannot specialise as a larger population can. Consider the hypothetical example of a closed economy that is only large enough to support one pub. This one pub has to be one size fits all, and needs to cater to the entire community

and a range of diverse preferences across atmosphere, drinks menu, and patronage. If the population were to become three times as large, it could support three pubs. Each pub could specialise in catering to a specific type of customer, thereby increasing the productivity of all three pubs. In short, more people are more productive purely by virtue of being more numerous, all else being equal. There are also a range of network and secondary effects to this phenomenon. Some bartenders might be much better at working in nightclubs and some might be better at a traditional pub, so more pubs enable more efficient pub-to-bartender matches to be made in the labour market, increasing the economy's productivity of labour. An economy with lots of pubs might invest in a bartender training school, enabling the productivity of its labour force to increase further. Network effects multiply, as bartenders concentrate and learn from one another. Innovations and competition in bartending and public house management occur, further increasing productivity. The GDP per capita of our hypothetical economy is now far greater than it ever was before the population was increased.

The point here is to illustrate that a Malthusian understanding of population is wrong, and in fact, in a service economy like ours, more people actually increases the standard of living of the population and all else being equal, is something we should want. To some extent, this is basically what we see in the higher wages earned in Greater Dublin. Intuitively one might assume that much of that difference comes from the selection effect of lots of smart and ambitious young people moving to large cities, but Fontagné & Santoni (2016) use French firm-level data to find that "denser commuting zones seem to offer a better match between employers and employees, leading to more productive firms" – in other words, areas with more people are more productive primarily because they have more people and not for any other reason.

Density

The above would imply that increasing our population should be a policy priority because density is economically wise, and Ireland is an unusually sparse country in a European context. At 71 people per square kilometre, Ireland would need to quadruple the population of the State to reach the same density as the United Kingdom. The UK is a country that has lots of large and dense metropolitan areas in Greater London, Greater Manchester, Birmingham and the Midlands, and in Leeds and Newcastle in England's Northeast, but the UK is not an unmanageably overcrowded country, and much of Scotland and central Wales is sparsely populated even. The point is that a much more populated Ireland is actually not unfeasible or a particularly unpleasant vision – it would simply mean larger and busier regional towns (imagine Tralee looking more like Drogheda), expanded secondary cities (Galway being as large as Cork), and some continued growth in Greater Dublin. Pre-Famine Ireland supported over 8 million people on a dense and vibrant countryside. Also, unlike in many other countries, there are no significant areas of land in Ireland that are totally unsuited to large-scale human settlement. There's no geographic or spatial reason that we should constrain the national population to its current size.

IV. A Policy Agenda

Solving the Irish Policy Challenge

The policy problem facing the State as discussed in Part II is twofold – too many people and too much economic activity want to be in Dublin which pressurises the State's ability to provide infrastructure, and too few people and too little economic activity want to locate in Rural Ireland, which produces a vicious circle of rural decay and underdevelopment. This totally ignores the dependency ratio problem that we face – plenty has been said about the Pension Age before, and policymakers know that we need more young people urgently. The response in Greater Dublin has been to keep making capital investments to keep pace with growth, which has been very challenging and not very successful – much of the commuter belt does not have access to the type of transport infrastructure that is available in comparable cities in Europe and many transport projects either do not happen or are delayed due to local opposition in the suburbs. In rural Ireland, the policy response has involved making piecemeal and expensive State subsidies available to companies to locate in places where they probably would not otherwise locate in order to bring jobs to rural Ireland,

The root of Ireland's problem is its small population. There are no large counterweights to the economic gravity of Dublin, meaning that Dublin attracts too much economic activity and people. Much of Rural Ireland is in the grips of a vicious cycle of outward youth migration. The way to solve both of these problems at once is to have lots more people in cities and towns outside of Dublin. If regional towns and cities were large enough to create their own economic gravity, some of the infrastructural pressure on Dublin would ease as investment and economic activity would begin to concentrate in large and growing alternative urban centres. This is basically a chicken-and-egg problem. Investment and jobs are difficult to attract without a young and growing population, which is difficult to retain without investment and jobs. Ireland's approach thus far has been to encourage investment and jobs in rural Ireland first in the hopes that strong employment prospects will keep young people in rural Ireland, but it is an uphill battle. A better approach would be to systematically increase the population of the country and let investment move to places where there is a growing population and consumer market. An Ireland with twice or three times its current population would have other large urban areas beyond Dublin, and large and bustling regional towns that could attract economic activity in their own right. Those places would serve as a counterweight to the dominance of Dublin, and would reach such a critical mass as to keep young people in those areas in the long term, enabling family formation and an escape from the rural underdevelopment trap discussed earlier. This would be a fundamental reversal of fortunes for the entire country, and it could be done if population was to be taken seriously as a policy lever.

Policy Ideas
Population change is a function of the birth rate and net migration. Consequently, there are two ways to radically increase the national population – increasing the birth rate and allowing more immigration.
The fertility rate across the globe has fallen year on year for some time due to better access to contraceptive technology, reduced child mortality, and improvements in the status and economic independence of women. In highly educated societies, norms around family formation have also changed, and the average age of family formation has moved later, effectively shortening the fertility period. Simultaneously, the cost of having and raising children in the developed world has increased in most countries as childcare and education has grown more expensive. Interestingly however, Bongaarts (2001) finds that there has been a sustained and even growing difference between desired fertility (the amount of children per woman survey respondents said they wanted) and observed fertility. This difference between desired and observed fertility can largely be explained by the increased cost of having and raising children, and the shortened fertility period. The implication here is that a significant population increase could be achieved simply by making it cheaper and easier to have and raise children, through the provision of state-subsidised childcare and stronger parental leave guarantees, which would in theory allow observed fertility to meet desired fertility.

Positive net inward migration is the other way in which the population can grow. Just over half of the population increase in 2020 came through net migration, which amounted to about 28,900 people (CSO, 2020). There are undoubtedly more people that would move to Ireland if offered the chance than are currently able to. The real constraint on net migration is a political and labour market one. There is a perception in many European countries that immigration will reduce wages for native workers, particularly unskilled ones. Empirical evidence for this claim is somewhat mixed, Dustmann, et al. (2008) find that negative wage effects for native labour only occur in relatively narrow circumstances. In fact, Dustmann, et al. (2008) find that wages often increase with immigration. In general, immigration is a net positive for economies - and this is aside from the previous discussion of the economic benefits accrued through density. More people is good, and policymakers should want to increase the population using whatever tools are available to them.

V. Conclusion

Population is rarely thought of practically as a policy variable that can be controlled, perhaps for political reasons – attempting to radically increase a population is a very ambitious idea, and efforts to actively manage population size have had a mixed history with often bad connotations. However, the economic theory discussed in this essay shows that more people is good for productivity, and there’s no real constraint that would prevent us from having a much larger population in Ireland. More people is not only good in the general case but would specifically benefit the unique structural development problems we face in Ireland. Attempting big, ambitious, direct policy interventions to increase the population of Ireland is a good idea. Even though attempts to increase Ireland's population would involve overcoming many technical and logistical challenges around providing housing and making infrastructure available, these are good challenges: as a country, we should want to engage with the problems of growth, population and dynamism and not our current problems of urban sprawl and rural decay.

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Globalization and Gender: The Impact of FDI Inflows on the Gender Pay Gap

By Catriona Northcote and Helene Hololei

Abstract

In this essay, Catriona Northcote and Helene Hololei analyse the relationship between FDI inflows and the gender pay gap in three South American countries. Northcote and Hololei find that FDI and the gender wage gap have a positive relationship. Interestingly, Northcote and Hololei find that the effects of FDI on the gender pay gap differ between high and low-skilled jobs. Overall, the paper finds that increased FDI is found to widen the gap between male and female wages in Brazil, Argentina, and Peru. In finding that the gender wage gap increases with more FDI, Northcote and Hololei's thought-provoking analysis finds results at odds with the Becker model.

I. Introduction

This research paper addresses how an increase in foreign direct investment inflows in three South American countries (Brazil, Argentina, and Peru) affects the gender wage gap in each of these countries. This study begins by discussing the FDI-induced transmission channels and spillover effects on the gender wage gap, with a particular focus on the aspect of reduced gender discrimination with increased competition. In light of the UN's 2030 goal of gender equality, it is of interest to assess the neo-classical economic theory which holds that an increase in FDI inflows leads to more equitable gains and the advancement of developing countries (Mahembe and Odhiambo, 2014). Contrary to our original thesis, we find a positive relationship between FDI and the gender wage gap. We observe an increase in female participation and share of women in managerial positions with higher FDI inflows, but this fails to translate to a decreased gender wage gap. The next section discusses the possible implications of this relationship and how the transmission channels fail to narrow the gender wage gap. The paper ends with a discussion of the

the potential limitations of this study. Overall, we suggest that there is a disconnect between the political and economic agenda in developing countries, as the political implications of gender wage inequality are offset by the economic benefits of sustaining a gender pay gap.

II. Background/Literature/Motivation

From an economic perspective, the most common measure of gender inequality is the gender wage gap. The United Nations defines equal pay as "the right to receive equal remuneration for work of equal value". Presently, the global gender wage gap is at 16%. This means that female workers earn 84% of what a male worker earns (UN Women, 2020). Reducing this gap is a top priority for all countries. As many studies are increasingly demonstrating, gender equality and women empowerment influence short-run and long-run macroeconomic outcomes (Seguino, 2000). The UN's inclusion of gender equality in the 2030 Agenda for Sustainable Development reflects this. A detailed longitudinal study by Blau and Klahn found that the gender pay gap could be explained by human-capital factors (although these are diminishing) and gender differences in industry and occupation. The rest of the gender pay gap is unexplained (38%), and this portion has persisted since the 1980s. The authors suggest that this unexplained gap, unaccounted for by measures of gender differences, is due to labour-market discrimination (Blau and Kahn, 2017).

Foreign direct investment is considered to be a central element of development strategy. It increases local competition, bringing about better employment opportunities, changing relative prices, and increasing wages. FDI can lead to technology transfers which may increase the relative demand and wages of women. According to neoclassical theories, increased competition should translate to an increase in female demand for labour and wages by affecting the growth of different industries. It can lead to the expansion of female intensive sectors, such as the service industry. FDI and increased competition could also reduce market imperfections such as gender-based discrimination (Aguayo-Tellez, 2012).

The Becker model holds that increased product market competition will directly reduce all kinds of discrimination as they are inefficient and costly. A decrease in gender-based discrimination should subsequently narrow the gender wage gap, as there is a degree of substitution between female and male labour. As Black and Brainerd show in their study of the gender wage gap across industries in the United States, trade liberalization and increased international competition did contribute to the increase in women's relative wages as they reduced firm's ability to discriminate (Black and Brainerd, 2004). Hazarika and Otero similarly find that trade liberalization is related to a narrowing in the gender wage gap in Mexico. Product market competition induced by foreign trade led to a decrease in gender discrimination, particularly in the export-oriented maquiladora, and also in the non-maquiladora sector in industries where there were reductions in tariffs and trade barriers (Hazarika and Otero, 2004). A study of the Uruguayan economy finds that the gender pay gap is explained by labour market discrimination, as well as differences in endowments. They stimulate 1994 levels of trade liberalization and find that this has increased female employment and wages and narrowed the gender wage gap. However, they do note that these changes vary by skill (Terra, Bucheli and Estrades, 2009). These studies and others have found that there is a relationship between FDI and the gender pay gap, via labour demand, corporate social responsibility, economic growth, and technological spillovers (Aguayo-Tellez, 2012).

The literature on this topic has been heavily debated. Studies in the LAC region have been limited in number and have not been updated recently. The objective of this paper is to contribute to previous studies about the gender dimension of economic globalization by assessing whether an increase in FDI in Brazil, Argentina and Peru will decrease their national gender wage gap. Since the 1980s, these countries have become increasingly liberalized and attracted relatively large FDI inflows (William, 2015). However, they have underdeveloped labour laws and in particular a lack of wage inequality reforms (ILO, 2016). This might be useful in looking at the direct impact of FDI on relative wages. Female workers tend to be relatively unskilled and working in the informal sector, which is undergoing an expansion with liberalization. An observation of particular interest is that the agricultural sectors of these countries consist of mostly men. Therefore, liberalization might negatively affect the agriculture sector and render women relatively better off (Aguayo□Tellez, 2012). Choosing these three countries also allows us to compare differences in country characteristics within a similar region.

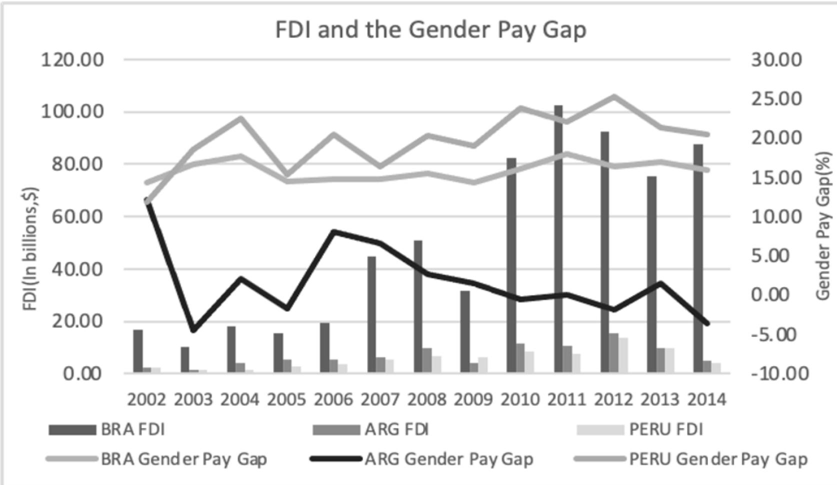
III. Empirical Approach

In order to determine the impact of FDI on the gender wage gap, our empirical approach includes a descriptive analysis of data from the International Labour Organisation and the World Bank. We set up this study using data from Brazil, Argentina, and Peru between 2002 and 2014. We use interpolation to compensate for the missing data points.

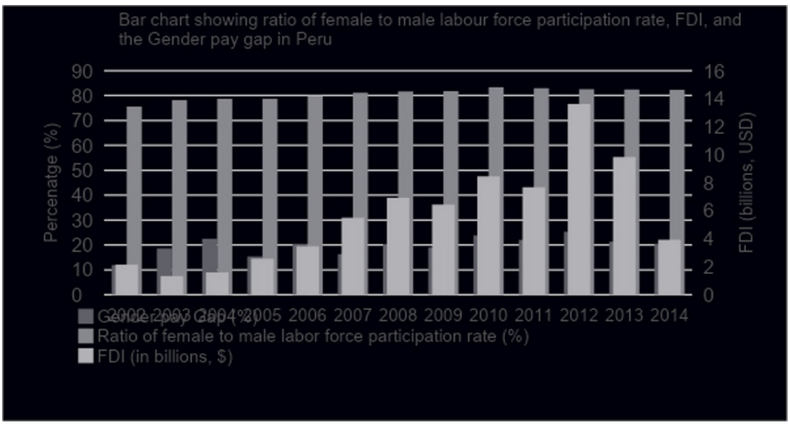
IV. Description of Dataset

Figure 1 shows a clear direct correlation between FDI and the Gender Pay Gap (GPG), where the wage discrimination between genders moves in the same direction as FDI. Brazil sustained both a steady increase in FDI and GPG. Peru encountered a fluctuating FDI and a similar pattern is reflected in the GPG. Argentina, on the other hand, experienced extreme fluctuations in their FDI but it remained consistently lower than in the other two nations. As a result, Argentina's wage differentials have persisted at a much lower level than in BRA and PER. For example, Argentinian FDI decreased from 15.3 in 2012 to 5.1 in 2014. This coincides with GPG drastically dropping from 1.45% in 2013 to -3.62% in 2014. Conversely, the lowest the GPG has been in BRA was in 2002 and 2009 but then increased consistently with FDI inflows. Therefore, these three cases in South America suggests that a higher FDI will not eradicate the the GPG but may actually worsen it, as FDI has a direct direct relationship with GPG.

This research looks at pecuniary FDI spillovers via the labour and competition channels and originally suggested that Becker's Theory of Discrimination (1957) will slowly over time narrow the wage gap between men and women with an equal skillset (Black and Brainerd, 2004). However, this is not what is seen in Figure 1.



Using Peru as an example, Figure 1 and Figure 2 show that Peruvian GPG has risen alongside FDI. However, Figure 2 shows that the ratio of women to men in the labour force has also increased. This implies that Becker's theory is applicable but limited to narrowing the gender discrimination in employment rather than the pay gap. Therefore, our study does come to the same conclusion as Black and Brainerd's (2014) and Terra, Bucheli, and Estrades' (2008), that female participation rate could be growing alongside FDI. However, in our case this is not sufficient to decrease the GPG.



One of the reasons for this phenomenon is that foreign investment can exploit the GPG in these three countries. At higher levels of education and human capital, men and women are (near) perfect substitutes (Acemoglu, Autor, and Lyle, 2004). Therefore, FDI works through labour mobility, competition, and technology channels to increase female labour force participation, especially in high-skilled employment (Ernesto 2011). However, instead of addressing the GPG, higher female participation in the labour market can create a perverse situation where FDI is reinforcing wage differentials. This is because firms can now improve their investment productivity at a lower unit labour cost than before by exploiting cheap female labour (Seguino, 2000).

Figure 3a shows a gradual and sustained feminization of high-skilled labour in Brazil. The female share of employment in managerial positions has increased by 6.2% between 2002-2014. Even though it has gradually increased over time it does not seem to follow the leap in FDI, nor has it helped lower GPG. Hence, demonstrating that FDI could partly help decrease employment discrimination yet having no knock-on effects on GPG.

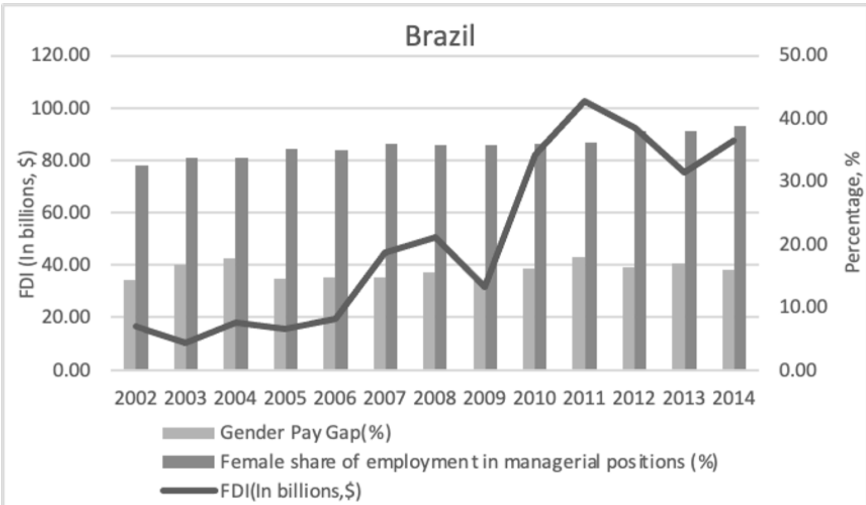


Figure 3b demonstrates a similar pattern in Peru, whereas in this case, the ratio of female share of employment in managerial positions fluctuates between 20-38%, hence it is more erratic than in BRA or ARG. However, this is not surprising as their FDI and GPG are also more volatile.

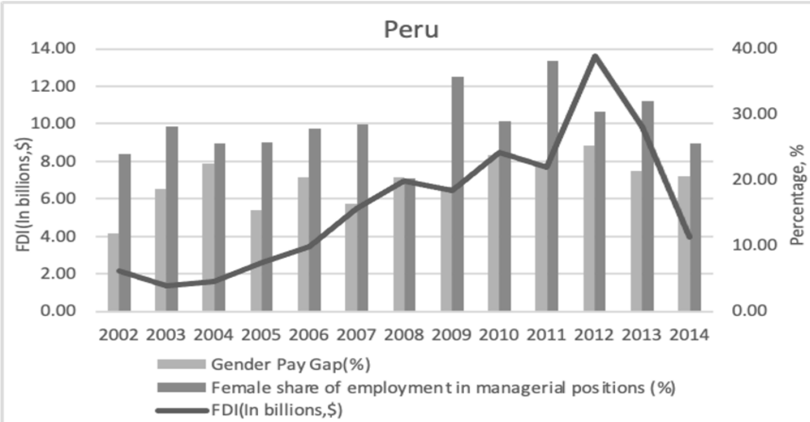
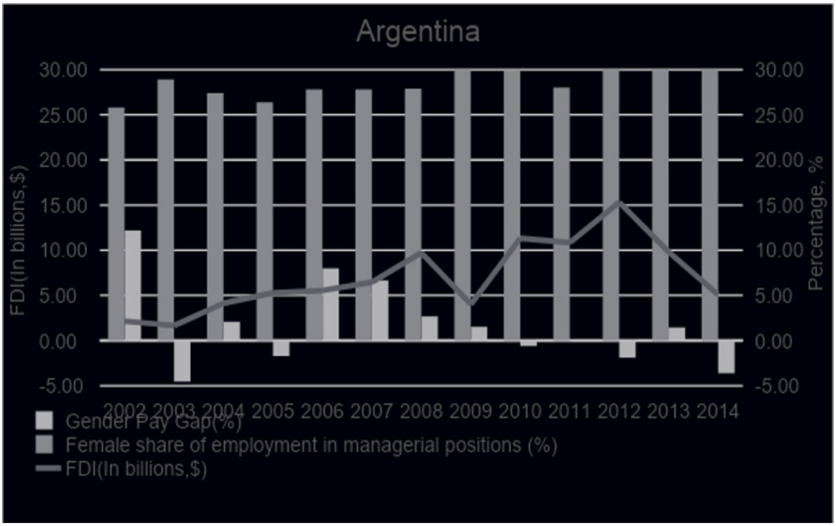


Figure 3c presents a different trend in Argentina than in the other two nations. It has a low but fluctuating FDI, a massive fall in GPG, and not much change (remains low) in the female share of employment in managerial positions.



Therefore, Figures 3a,3b, and 3c show that the percentage of women in high-skilled managerial professions either grew gradually like in BRA and PER yet the GPG remained high or like in ARG where the female share of employment in managerial positions remained constant at around 30% but GPG remained low. Therefore, the feminisation of the labour force has no real impact on lowering GPG. Nevertheless, there seems to be a weak link between FDI and women in managerial positions. In all three cases (less pronounced in Argentina) a rise in the female share of employment in managerial positions occurred around the same time as a rise in FDI.

The weak interaction we see in the graphs may occur as a result of men and women becoming (near) perfect substitutes as human capital increases (Acemoglu, Autor, and Lyle, 2004). Women in managerial positions can earn more in absolute terms but evidently not in relative terms. Figure 3a and 3b represent the feminization of the labour force and a growing pay gap. As of now, firms can exploit lower unit labour costs by employing women, which in turn will further attract investment due to higher potential returns Therefore, an obvious issue arises here where the pay gap offers economic advantages (Seguino, 2000). Standing (1989;1999) pointed out that due to the competitive pressures of globalisation, female workers are benefitting from higher employment at the cost of male workers due to gender wage differentials. Therefore, efficiency-seeking FDI will take advantage of new cheap female labour to lower production costs (Bui, Bui, and Vo, 2018). Under the assumption that females and males are perfect substitutes at higher levels of education, from a purely economic viewpoint, it would be economically inefficient to eradicate the gender wage differentials as exploiting female labour provides the same output as men just at a lower cost to the firm. This effect can potentially explain what we see in the graphs above where GPG is actually increasing even though countries are experiencing more foreign investment and feminization of the labour market. Additionally, as South and Latin American society is characterised by Machismo (a highly patriarchal society), hence GPG becomes even more exploitable for FDI. Women in such societies have limited bargaining power to demand equal pay due to lower socialization. Therefore, women are less able than men to sufficiently protest wage inequality in a way that would signal high political instability to investors hence lowering FDI and slowing economic growth (Seguino, 2000). Essentially, GPG offers cheaper inputs for the same output at lower economic and political costs.

Conclusively, this study represents that there are cross-country similarities in the relationship between FDI and GPG. Our analysis determines that the neo-classical approach of using FDI alone to end gendered wage discrimination locally and globally cannot be achieved. As long as the opportunity cost of GPG is lower than its political implications and it continues to offer low unit labour costs and high investment productivity through high-profit margins and low fixed costs with no political repercussion, then GPG will persist.

V. Limitations

There are three obvious limitations in this research project that need to be addressed for a more robust statistical analysis. Firstly, there are inaccuracies in the gender wage gap data. This stems from the fact that there is a lack of consistent and uniform data on it and our interpolations for the missing years led to further inaccuracies in the final analysis. Secondly, our study is restricted to descriptive analysis. It could be improved using the fixed effects model or the instrumental variable regression model. Thirdly, it would have been beneficial to look at the FDI in specific sectors within the countries. This would have made the study more generalizable, but there is currently not enough data on the GPG in specific sectors to ensure statistical significance.

VI. Conclusion

The aim of this paper was to assess whether increased foreign direct inflows has narrowed the gender wage gap, as neo-classical and trade theorists have previously argued. Previous research in this field has found evidence that supports Becker's theory of discrimination, hence motivating our own study and contribution to the topic. Analysing Brazil, Argentina, and Peru between the years 2002 and 2014 allowed for a cross-country analysis of a region that has recently adopted liberalization policies and has undergone limited reform with regard to labour market policies. Upon examination of our dataset, we can see that there is a clear direct correlation between FDI and the gender pay gap, where the level of wage discrimination between genders moves in the same direction as FDI. Therefore, we argue that a high FDI will not eradicate the GPG but may actually worsen it.
On the other hand, we also find that in
creased FDI inflows have occurred at the same time as an increase in the ratio of women to men in the labour force and the feminization of high-skilled labour. We argue that this is because firms are now exploiting cheap female labour to improve their investment productivity at a lower unit labour cost. Therefore, although increased FDI may reduce employment discrimination, it will have little impact on reducing wage discrimination and can actually increase the wage gap. There are evident economic gains from gendered wage discrimination that neo-classical economic theory does not address. These gains are associated with increased economic rents and lower production costs, as well as a lack of effective political backlash. As our study suggests, increased FDI inflows seem to contribute to the gender wage gap rather than overcome it. The results of this paper show that although more women are entering the labour force and accessing high-skilled jobs, gendered employment discrimination is still prevalent within wage differentials. As long as the gender pay gap continues to offer low unit labour costs and high investment productivity through high-profit margins and low fixed costs with no political repercussions, the gender pay gap will persist.

Going forward, although this study has its limitations, our results highlight the need for effective labour market reforms and policies alongside trade liberalization in developing countries. FDI inflows alone cannot narrow the gender pay gap or reduce gender inequality. Future research might consider understanding the components of the gender pay gap in greater detail in order to assess the transmission channels. Additionally, it could be beneficial to look at other macroeconomic strategies that could raise women's relative wages to generate an efficiency wage effect, during the process of growth (Seguino, 2000). This paper is only the first of many to contribute to the topic of globalisation and gender.

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Eastern Europe's Demographic Crisis

by Niamh Howley
Junior Sophister

In this essay, Niamh Howley argues that Eastern Europe's demographic trends point towards a looming economic crisis. Howley diagnoses Eastern Europe's demographic crisis as being caused by low fertility rates, high emigration rates, and an increasingly high dependency ratio. It is argued that demographics are an issue of immediate political and economic concern in Eastern Europe as current demographic trends in Eastern Europe will increasingly lead to adverse economic effects if not addressed. Howley ultimately argues that by increasing female labour force participation and by limiting the push-effects encouraging outward migration, Eastern Europe can stem a looming demographic and economic crisis.

I. Introduction

While the focus of debates on European migration has primarily centred on its impact on wages and unemployment, a more discrete yet dramatic crisis that is inextricably linked to migration has been brewing. Higher life expectancy coupled with lower fertility rates has led to considerable ageing of the European population. While the European population is still growing in most member states, it is doing so at slower rates and some member states are beginning to experience a decline in their population levels. By extension, this will have critical impacts on the future of the labour force and economic growth in Europe. In particular, in several Eastern European nations, high levels of emigration has not only led to population ageing, but also to population decline. This essay will discuss inter-EU migration with regard to its effects on the demographic and economic prospects of Eastern European countries in the European Union.

II. Demographic trends in Eastern Europe

Higher life expectancy, low fertility and emigration have led to the ageing of the Eastern European population. While old-age dependency ratios were mostly at or below the EU average of 29.9% in 2017, the projected average old-age dependency ratio for the European Union is expected to reach 57% by 2100, with projections for many Eastern European countries above this average (Eurostat). This highlights the drastic change in demographic structures that will occur unevenly throughout the EU during the current century. The effect of a rise in the old-age dependency ratio, however, is considerable. Higher ratios indicate a lower number of workers supporting the economically inactive elderly population, diminishing tax revenues, increased pressures on health systems and larger pension payments as a % of GDP.

In many Eastern European countries, the population is not only ageing, but it is shrinking. Indeed, the world's ten fastest declining populations are all located in Central and Eastern Europe. The populations of Bulgaria, Romania and Poland are expected to decline by 24%, 18% and 15% respectively by 2050 (UNDESA, World Population Prospects, 2017). In addition to negative net migration levels, Eastern European countries have had declining fertility rates well below the 2.1 replacement level. This decline is largely due to the rise of postmodern values, economic austerity, unemployment, and the withdrawal of numerous social welfare mechanisms (Fihel and Okólski, 2019). Declining fertility rates alongside constant mortality rates have thus resulted in a negative natural change in populations. This, however, is a challenge currently faced by many European states. What makes Eastern Europe more vulnerable to population decline is the additional pressure caused by negative net migration.

III. Emigration: Eastern Europe's empty nest

Asymmetrical migration flows

Before the end of communist regimes, migration from Eastern European countries was rigorously controlled and movement from East to West was limited. After 1989, migration to the EU-11 countries increased, driven by a search for work opportunities and higher living standards. As Eastern European nationals formed communities abroad, migration towards these locations became increasingly attractive (Fihel & Okólski, 2019). The ascension of Eastern European countries to the EU in 2004, Romania in 2007 and Croatia in 2013, significantly increased migration flows towards western member states. By the end of 2012, it is estimated that 16% of the 1990 South-Eastern European population had emigrated abroad (Atoyan et al, 2016). Migration flows have essentially been one-directional with a large amount of emigration from Eastern European states to Western Europe, and very little in the other direction. The share of non-nationals from other EU member states in Romania is 0.3%, 0.1% in Poland and 0.1% in Bulgaria compared to 5.2%, 8.1% and 7.9% in Germany, Austria and Belgium respectively, illustrating the largely asymmetrical migration flows in the EU (Eurostat). Similarly, the share of non-nationals from non-EU countries is equally low relative to western member states. As a result, several Eastern European countries in the European Union are experiencing negative net migration. Other countries, particularly in Central Europe, such as the Czech Republic, Hungary or Slovenia have experienced positive net migration flows which can be explained by the inflow of migrants from neighbouring countries in Eastern Europe (Atoyan et al, 2016).

"Go West, Young Man"

Emigration from East to West is largely driven by both cyclical and structural factors. Differences in income per capita levels, work opportunities and institutional quality are the main "push" factors in relation to westward migration (Atoyan et al, 2016). A recent survey in Bulgaria revealed that the main motivations for emigration were higher wages and better health and social systems abroad (Kalfin, 2018). Indeed, the majority of migration flows are comprised of young workers in the working-age population (15-64). In Eastern Europe, the majority of emigrants are males, with fewer women leaving to work abroad (Eurostat, 2018). Typically, those seeking work opportunities abroad are also highly educated and highly skilled. In 2010, the proportion of emigrants with third-level education in Hungary, Latvia and Poland was higher than the proportion of nationals with third-level education in their respective countries of origin (Atoyan et al, 2016).

A looming economic catastrophe

The loss of highly educated and skilled workers is detrimental to the economy. Poland, Bulgaria and Latvia are forecast to lose over 30% of their labour force by 2050 with several other Eastern European states forecast to lose around 20% of their labour force (Ilyana et al, 2019). In economic terms, this amounts to a significant loss of human capital which is necessary for productivity and growth. Total factor productivity is expected to decline significantly as a result of the changing demographic structure. Indeed, an increase in the share of workers in their 40s is correlated with a rise in aggregate productivity while an increase in the share of older workers is negatively correlated with the latter (Ilyana et al, 2019). Innovation and the capacity to adapt to new technologies is associated with younger workers compared to older workers who may find it more difficult to adapt (OECD, 1998 as cited in Ilyana et al, 2019).

The estimated impact of this "brain drain" on economic growth in the Central and Eastern European region is significant. Central and Eastern European real GDP is projected to decrease by 1.4 percentage points on average every year over the next three decades if total factor productivity and labour forces continue to shrink. As such, the level of output in the region may be 35% lower in 2050, with labour shortage accounting for 60% of this reduction. Average real GDP per capita as a proportion of the Western European average is expected to increase from 52% in 2020 to 60% in 2050. As such, convergence will continue but at a slower rate (Ilyana et al, 2019).

One positive aspect of emigration may be the inflow of remittances. This may increase purchasing power, demand and consumption, benefitting the overall economy. In Bulgaria, the sum of remittances exceeds foreign direct investment flows in the country and as such, represent an important source of finance and income (Kalfin, 2018). In particular, remittances may remove some positive effects, these are outweighed by the negative economy-wide impact of emigration.

IV. A "silver" lining for Eastern Europe?

Boosting fertility rates are tackling the symptoms, not the cause.
Much of the debate over the policies required to remedy the current change in demographic structures have focused on increasing fertility rates. Hungary has introduced measures such as free IVF treatments or loans for couples promising to have a child in the future. Similarly, Poland's "Family 500+" offered a monthly benefit (worth 12% of the average gross wage) to encourage an increase in fertility rates. According to the Polish Central Statistics Office, there has been a 13-15% increase in birth rates since the implementation of the policy (European Commission, 2018).

However, these policies can also have counterproductive effects. According to Magda et al (2018), the participation rate of potential mothers would have been between 2.5 and 3% higher in the absence of the "Family 500+" policy. These policies are also extremely costly and occupy a proportion of the budget which should be used to tackle the causes and not the symptoms of emigration. Indeed, if no significant changes are made to the cyclical and structural issues that lead to emigration, emigration is likely to continue, and increased fertility may amount to more emigrants looking for work elsewhere (UNFPA, 2018). Even if such policies offset the negative natural rate of change, the main cause of population decline and ageing in Eastern Europe will be left unaddressed.

Increasing labour force participation
Western countries in the EU have often aimed to fill labour shortages through both EU and non-EU immigration. Nevertheless, whether immigration helps provide a solution to the unsustainable future dependency ratio is conditional on labour participation and integration into society and the workforce. Indeed, while immigration can increase the working population, it can also increase the non-working population (Joint Research Centre, 2019). On average, the participation rate of male immigrants is only slightly lower than that of the native population. This is not the case for female immigrants whose participation rates remain much lower. In addition, immigration characterized by low levels of human capital will be problematic as automation and technological processes increase. Unless immigrants participate highly and are integrated into the labour force, the dependency ratio will not change (or may rise). This counterproductive effect can be avoided by selective immigration policies targeting highly skilled immigrants who may contribute more to the system while also alleviating a shrinking labour force (Serban, 2012). In any event, immigration may not have the same impact in Eastern Europe as in Western European member states. Indeed, some Eastern European countries have exhibited a less welcoming attitude towards immigration and due to lower wages and poorer institutional quality, have remained less sought after as a destination for economic migration.

As long as emigration flows increase from East to West and unless policies are successful at retaining workers, a shrinking population in Eastern Europe will remain an inevitability for the near future. However, increasing labour force participation may help mitigate the effects of a shrinking labour force and ease fiscal pressures. In particular, policies should aim at increasing the labour force participation of women which is often less than that of the male population. The lower participation of women in the labour force is a lost opportunity to increase GDP and to ease the fiscal burden of an ageing population (Pignatti, 2020). While many of the factors influencing participation in the labour force such as education levels, cultural attitudes to working mothers and poor labour conditions cannot be overcome quickly, a significant number of policies can still have a considerable effect on female participation. Such policies include the provision of childcare subsidies, financial support for the care of the elderly, and parental leave (OECD, 2004). Furthermore, the implementation of flexible labour market measures such as allowing for mobility, or temporary work contracts may help reconcile the need to work and the desire to have a family. Indeed, increasing female participation in the workforce would benefit the economy widely. Swedish policies in this regard (generous parental leave benefits, state-funded childcare services and paid "child sick days") have favoured female participation rates and have enabled Sweden to have one of the highest fertility rates in the European Union. In addition, the removal or modification of joint taxation schemes in which second earners (most often women) are taxed more heavily than single earners may remove yet another obstacle in the way of female participation in the labour force. These policies would lower the opportunity cost of women entering the workforce.

Ultimately, education policies will be key to enhancing labour force participation. Professional development and training will be necessary to adapt to changing job requirements in the face of the technology revolution. Investing in high levels of human capital have also been found to encourage workers to participate in the workforce as a return on their investment and delay retirement (Serban, 2012).

In the long run, policies should be aimed at creating employment and attracting foreign direct investment. This may include the pursuit of policies aiming to attract service industries such as remote IT servicing, technology or service centres to remotely serve Western European based companies and markets. In addition, policies aimed at increasing job satisfaction, career advancement and generating higher salaries will be especially important. Institutional reform will also play a key role in retaining workers as well as potentially attracting those who have made the decision to emigrate back to their home countries. In recent years, return migration has increased in Eastern Europe in part thanks to government programs. Expanding these programs may not only benefit the demographic structure of the country but may also generate beneficial knowledge spillovers throughout the economy. Return migration received a significant boost as remote working became possible during the pandemic. While this may be temporary, being re-acquainted with the homeland may encourage a stronger flow of return migration in the future.

V. Conclusion

Eastern Europe will likely face considerable demographic and economic challenges in the face of population decline and ageing driven by natural change and emigration. This will have negative repercussions on growth and development. Eastern European countries must focus on retaining their skilled workforce and on increasing labour force participation, particularly that of women, in order to mitigate these effects.

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Media, the Political Economy and Governance: Does Media's influence on political decisions lead to 'good' governance?

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In this essay, Chloe Dawson provides an in-depth analysis of the media's role within the political economy. Dawson begins by discussing the hypodermic needle theory and agenda-setting theory as models for understanding the effects of media. Dawson then uses empirical studies involving US relief spending, the Israeli-Palestine conflict, and the UK MP expenses scandal to demonstrate the effects of media priming and framing. Throughout this essay, evidence is provided to supports Dawson's final conclusion that the media plays a crucial role within the political economy in promoting good governance

Introduction

From the inception of the newspaper in the 1700s to the invention of the Internet, media has rapidly evolved into an instrumental feature of modern life. While a wide array of literature surrounding the significance of media in the political economy exists, Snyder & Strömberg (2008) describe how the "Empirical evidence of the effects of media coverage is scarce." This scarcity can be attributed to empirical challenges, most notably the endogeneity of media coverage to many outcome variables, and the requirement of exogenous variation to evaluate the impact of media (Snyder and Strömberg, 2008). However, despite this scarcity, the empirical and theoretical literature that does exist unequivocally concludes that media has a significant effect on the political economy, as media frequently shapes the agenda of public discourse.

'Good governance is defined explicitly by the United Nations, who declared that it must be accountable, effective, transparent and responsive, and must 'Assure that corruption is minimised.' (Sheng, 2009). The central focus of

Hypodermic Needle Theory

The hypodermic needle theory, a strong effects model, was the first model to conceptualise media effects - the theory argued that the effects of media were immediate and direct (Lim & Kim, 2007). This theory centred around the concept that mass media overpowered its audience who were ill-informed and easily influenced by media. Therefore, a direct and uniform effect of media on citizens existed, as citizens were identical and responded to content in identical manners. This theory clearly emphasised the significance of media in political decisions. The importance of public opinion meant politicians often directed policies towards favourable opinion, which according to this theory was in turn influenced by media. However, this theory is widely rejected today; media effects are no longer assumed uniform, as people discuss opinions and have some agency in deciding what to believe.

Agenda-Setting Theory

The strong effects framework fundamentally re-emerged from the 1970s. Modern strong effects frameworks account for individual differences and contextual factors influencing the impact of media exposure, which makes the framework more accurate than the original hypodermic theory. The 'agenda-setting' theory is prominent in the theoretical literature. McCombs (2007) explained this theory in the context of public agenda; due to constraints (often time-related), media directs attention to a few select topics regarded as 'newsworthy', and over time, these topics become a priority in public opinion. Media, therefore, determines which topics are deemed most important for any given day. While media does not necessarily tell viewers what to think, it does tell them what to think about. Media essentially weights information and helps direct public attention to particular issues, which in turn can set the tone for policy action and influence governance (Wolfe & Jones, 2013). This theory fundamentally relies on the fact that policymakers place great significance on public opinion as policymakers regard media coverage as an indication of public opinion and will therefore direct policy towards media-covered issues. Based on this theory, policymakers should direct more attention to events extensively covered by media and hence more known to the public. However, conclusions regarding media's influence on governance remain somewhat ambiguous utilising this theoretical framework. The Agenda-Setting theory is empirically supported by Eisensee and Strömberg (2007) and Durante and Zhuravskaya (2016).

According to the theory of agenda-setting, disasters covered in media, and hence more prominent to the public, should receive more attention from the government than those with less coverage. Eisensee and Strömberg (2007) provided empirical evidence to justify the theoretical literature for agenda-setting by analysing U.S. relief for natural disasters. The endogeneity of news coverage posed an obstacle for Eisensee and Strömberg (2007) as news coverage and relief could be correlated. To overcome this challenge, Eisensee and

and Strömberg (2007) as news coverage and relief could be correlated. To overcome this challenge, Eisensee and Strömberg (2007) utilised two instruments for the availability of newsworthy material. Firstly, the dates of the Olympic Games - a significant media event uncorrelated with politics - and secondly average daily news pressure (the median number of minutes the top three stories in a day received in a broadcast, averaged over forty days following a disaster). The negative correlation between news pressure and relief provision depicted how a disaster was less likely to receive U.S. relief when there were many other important events in the media. This demonstrates the importance of media agenda-setting in political decisions - the amount of news coverage a disaster received was fundamental in U.S. policymakers' decision to grant relief. This also illustrates the significance policymakers place on public opinion, as political decisions are based upon the extent to which voters are aware of a disaster.

Durante and Zhuravskaya's (2016) analysis of the Israeli-Palestinian conflict also demonstrates the importance of media agenda-setting in political decisions, As Israel sought to minimise negative publicity due to concern about global opinion, Israel could utilise media agenda-setting to their advantage. At times when there were many important events, U.S. media should place less weight on Israeli attacks in Palestine and hence negative publicity for Israel should be minimised. Durante and Zhuravskaya (2016) supported this prediction with empirical evidence. Durante and Zhuravskaya (2016) overcame empirical challenges related to the endogeneity of media by utilising instruments for 'news pressure' achieved through the creation of a list of pre-determined large events, both political and sports, expected to dominate U.S. media. These pre-determined events were uncorrelated with Israeli attacks and strongly related to U.S. news pressure. With exogenous variation in news pressure caused by these events, the far-reaching impact of media and agenda-setting on political decisions could be illustrated. Durante and Zhuravskaya's (2016) find that news pressure had a significant effect on both the timing and severity of Israeli attacks. Israel seemingly strategically timed attacks - particularly those with many casualties - when U.S. media was distracted in order to limit news coverage of these attacks and in turn, minimise negative public opinion. This illustrates the importance of media on all political decisions, even those related to military action. However, one must question the external validity of this study, as it ultimately depicts a very unique conflict.

The previously discussed studies lead to questions regarding good governance which must be addressed. Should U.S. disaster relief not be awarded solely based on severity? Results of Eisensee and Strömberg's (2007) study are open to interpretation. On one hand, the U.N (Sheng, 2009) emphasised the importance of, "Producing results that meet the needs of society," in good governance - media allows U.S. policymakers to provide relief to disasters most important to the U.S. public. However, one must consider the international responsibilities of government. Shouldn't the US government grant relief to disasters most in need of aid, rather than those deemed most important by media? The subjectivity of these questions leads one to conclude that these studies support the role of media in ensuring good domestic governance but cannot advocate for the media's role in producing good international governance. Moreover, Durante and Zhuravskaya's (2016) suggest that media may actually reduce accountability as Israel can escape negative publicity by strategically timing attacks. On the whole, this analysis is incorrect. The absence of media would undoubtedly result in more frequent attacks, as all negative publicity would be eradicated and hence, without media accountability would be reduced. Therefore, we can still confidently conclude from Durante and Zhuravskaya's (2016) study that media does lead to good governance as overall it enhances accountability which is a key feature of good governance.

Media Priming

The concept of 'media priming' is crucial in explaining media's impact on political decisions. Rokos-Ewolsen and Carepentier (2002) explain how media priming is the impact that the content of media exerts on actions and judgements related to the content discussed. Priming is particularly relevant when assessing media's impact on the public judgement of politicians. Priming and agenda-setting are significantly intertwined and Scheufele and Tewksbury (2007) described how 'By making some issues more salient (agenda setting), media can shape considerations people take into account when making judgments about political candidates (priming).' Therefore, issues that are extensively covered by media are weighted more heavily by citizens and utilised as a standard to evaluate or make judgements on politicians. Media priming, together with agenda-setting, impacts voters' judgements which influences election outcomes - which in turn impacts politicians' behaviour and hence, influences governance.

The UK MP's expenses scandal demonstrates the impact of media priming in political behaviour. Media priming means that issues covered extensively by media will strongly influence voting decisions. In the case of widespread corruption, extensive media coverage of an MPs misappropriation should result in punishment by voters in elections, and if politicians anticipate loss at the next election, they may choose to retire or resign. Larcinese and Sircar (2012) exploited the following features of the expenses scandal to conduct their analysis: MPs operate under identical rules, there are explicit measures of corruption as the Legg Report published monetary measures of each MPs misappropriation, and the crisis' unexpected nature (details were leaked by a 'mole', consequently MPs did not anticipate that their actions would be circulated in media). Empirical challenges related to difficulties measuring media coverage were apparent in this study. Larcinese and Sircar (2012) utilised two variables to measure media surveillance of each MP involvement. Firstly the number of newspaper articles an MP's name appeared beside the word 'expenses' in three months following the scandal, and secondly monetary measures of misappropriation determined by Legg Report. The importance of media priming in political decisions regarding politicians' behaviour was clear; a positive correlation between news coverage of the scandal and the probability an MP left parliament and a positive correlation between news coverage and the decision of an MP to retire was found. Both of these correlations can be attributed to extensive news coverage leading to anticipation of election defeat by candidates.

Would MPs have misappropriated funds had they known their actions would be circulated in media? Most likely not. Media can therefore deter corruption by increasing accountability, and, given the positive correlation between media coverage and retirement, we witness how media can help remove corrupt politicians from power. According to the U.N. (Sheng, 2009), 'Accountability is a key requirement of good governance,' and, corruption must be minimised for good governance. Also, the necessity of media in providing transparency of the government is demonstrated here. The U.N. (Sheng, 2009) states that information must be 'freely available". In the case of the MP expenses scandal, without media, voters would have been unaware of MP's involvement in the scandal and transparency of the government would have been severely reduced.

Media Framing

The concept of media framing is instrumental in explaining media's impact on policy. Media framing refers to the ability of media to choose words or images to influence how the public interpret content (Tewksbury & Scheufele, 2009). Tewksbury & Scheufele (2009) explain how media framing can exert a significant influence on an audience's beliefs, behaviour and attitude. Media framing can alter the way citizens interpret political decisions, which shifts political opinion which in turn impacts policy decisions. Media framing can also be advantageous to politicians, particularly when media outlets are dependent on financial aid, and the prospect of utilising media framing for political advantage can influence political decisions.

Strömberg (2004) depicted the effect of framing on political decisions, notably the allocation of public spending, and demonstrated how media framing can result in better governance. The introduction of radio offered an ideal setting to study media and public spending. Exogenous geographical variation in media was exploited, as radio access was uneven across the United States, and the introduction of radio coincided with the launch of the New Deal. As radio implementation was at the discretion of the governor of a county, and hence radio relied on governors for funding, radio helped governors by reporting successful work to enhance their popularity. The prospect of framing offered incentives to governors to implement better policies for their electorate.

To overcome issues of endogeneity of radio access, Strömberg (2004) utilised two instrumental variables for the share of households with radios; firstly, ground conductivity (the ability of radio waves to travel through the ground) and secondly, woodland (the share of a county's land that was woodland, as physical obstacles altered the ability of transmissions to travel through air). Both of these instruments were correlated with access to radios, but exogenous to relief spending (Strömberg, 2004). Strömberg (2004) supports the theoretical literature with empirical evidence demonstrating the importance of media framing in political decisions; a positive correlation between radio ownership and relief spending for a county existed. This depicts how politicians who had the opportunity to utilise media framing to their advantage, i.e., those with greater radio access in their county, worked harder and implemented better policies. Therefore, as media can incentivise officials to work harder and produce better policies, leading to better outcomes for citizens, this study depicts how media results in better governance. Without media accountability, the responsiveness and effectiveness of the government would be reduced.

Opposing Evidence

However, to form a measured conclusion, we must address the rare situations in which media does not lead to good governance. Yanagizawa-Droft (2012) depicted the dangerous potential of media through a study of the Rwandan genocide, where media, specifically the RTLM radio, was utilised as a propaganda medium. When available for propaganda purposes, media can impact political decisions related to minorities, in this case, state attacks as RTLM radio encouraged violence against the Tutsi minority. The significant impact of media on political decisions regarding violence and minority attacks was evident. However, one must critique this study as it did not account for factors such as historical ethnic animosity or civil war, which may have influenced findings. Regardless, collective violence was significantly increasing in radio coverage, and ten per cent of the killings can be attributed to RTLM broadcasts (Yanagizawa-Droft's, 2012). Clearly, media unequivocally did not lead to good governance in this case. As the U.N (Sheng, 2009) explained good governance requires, "Full protection of human rights, particularly those of minorities." The impact of media on political decisions can, therefore, given the correct setting, be catastrophic. However, while such cases are key to assessing media's influence on policy, it must be noted that this case is largely unique to this situation, and similar scenarios are at best uncommon.

Conclusion

The significant impact of media on political decisions has been demonstrated throughout this paper, and a clear analysis of the mechanisms through which media impacts political decisions has been shown. Media affects political decisions of all types - those related to politicians' retirement and resignation, strategic military attacks, public spending, international relief and even state-sponsored mass murder. The relationship between media and good governance is perhaps more subjective; however, this paper has demonstrated that on the whole, media does lead to good governance and is a necessary element of society. It has been illustrated how media reduces corruption, removes corrupt officials, increases accountability and transparency, and results in policies that enhance the welfare of citizens. In conclusion, media helps promote good governance and is, therefore, a crucial part of the political economy.

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