## A History of Irish Economic Thought

Edited by Thomas Boylan, Renee Prendergast and John D. Turner



Routledge History of Economic Thought

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For a country that can boast a distinguished tradition of political economy from Sir William Petty through Swift, Berkeley, Hutcheson, Burke and Cantillon through to that of Longfield, Cairnes, Bastable, Edgeworth, Geary and Gorman, it is surprising that no systematic study of Irish political economy has been undertaken.

In this book the contributors redress this glaring omission in the history of political economy, for the first time providing an overview of developments in Irish political economy from the seventeenth to the twentieth century. Logistically this is achieved through the provision of individual contributions from a group of recognised experts, both Irish and international, who address the contribution of major historical figures in Irish political economy along the analysis of major thematic issues, schools of thought and major policy debates within the Irish context over this extended period.

This volume goes beyond a discussion of Irish economists in relation to Ireland-specific economic issues to recognise the contribution of Irish economists to economic thought more generally. It is a comprehensive overview that will be of interest to researchers and students of economic thought and Irish history alike.

**Thomas Boylan** is Professor of Economics at the University of Galway, Ireland. **Renee Prendergast** is Reader in Economics at Queens University, Belfast, UK. **John D. Turner** is Professor of Finance at Queens University, Belfast, UK.

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## Contributors

- Alberto Baccini is a full Professor of Economics at the Facoltà di Giurisprudenza Dipartimento di Economia Politica, University of Siena, Italy. He is an expert of Francis Ysidro Edgeworth's work, and has published several articles for leading international journals on Edgeworth, the history of probability theory and John Maynard Keynes. Recently he has been working on the application of network analysis techniques to the study of economic and statistical thought.
- Roger E. Backhouse is Professor of the History and Philosophy of Economics at the Department of Economics, University of Birmingham, Edgbaston, Birmingham, UK. Publications include *The Penguin History of Economics/ The Ordinary Business of Life* (2002), *The Cambridge Companion to Keynes* (2006, co-edited with Bradley W. Bateman), and *No Wealth but Life: Welfare Economics and the Welfare State in Britain, 1880–1950* (forthcoming, co-edited with Tamotsu Nishizawa). He is currently working, with Philippe Fontaine, on the history of the social sciences since the Second World War. He teaches the history of economics at Birmingham, Erasmus University Rotterdam and the University of Oporto.
- Frank Barry is Professor of International Business and Development at the School of Business, Trinity College Dublin, Ireland. He holds a Ph.D. in Economics from Queen's University, Ontario, and has previously held positions at the Universities of California, Stockholm and New South Wales, and with the Harvard Institute for International Development. He is a specialist in the areas of international trade, foreign direct investment and economic development. Amongst his publications are an edited volume on Understanding Ireland's Economic Growth (Macmillan Press, 1999) and a co-authored book on Multinational Firms in the World Economy (Princeton University Press, 2004).
- **Daniel Blackshields** is a Lecturer in Economics at the Department of Economics, College of Business and Law, University College, Cork, Ireland. He has been a member of the Department of Economics since 1997. Currently he is a participant in the Irish Integrative Learning Project. His research interests include Linking Research and Teaching, Sherlock Holmes' Problem-solving Pedagogies for Economics, Austrian Economics and the Economics of the Entertainment Industry and the History of Economic Thought.

- Tom Boylan is Personal Professor of Economics at the Department of Economics, National University of Ireland, Galway, Ireland. His principal areas of research include growth and development, history of economic thought, post-Keynesian economics, and the philosophy of economics. He has published in a wide array of international journals and has co-authored a number of works which include *Political Economy and Colonial Ireland* (Routledge, 1992, with T. Foley) and *Beyond Rhetoric and Realism: Towards a Reformulation of Economic Methodology* (Routledge, 1995, with P.F. O'Gorman), and co-edited a number of major projects, including both the four-volume anthology, *Irish Political Economy* (Routledge, 2003, with T. Foley), and the six-volume collection, *John Elliot Cairnes: the Complete Works* (Routledge, 2004, with T. Foley). His most recent works include *Popper and Economic Methodology: Contemporary Challenges* (Routledge, 2008, co-edited with P.F. O'Gorman) and *Economics, Rational Choice and Normative Philosophy* (Routledge, 2009, co-edited with R. Gekker).
- Anthony Brewer is Emeritus Professor of the History of Economics at the School of Economics, Finance and Management, The University of Bristol, UK. He has worked on various aspects of economic theory, but has in recent years focused mainly on the history of economic thought in the eighteenth and nineteenth centuries. He is the author of *Richard Cantillon: Pioneer of Economic Theory* and of other books and articles in the field, and is currently Vice-President of the European Society for the History of Economic Thought.
- **Graham Brownlow** is a Lecturer in Economics at the Queen's University Management School, Queen's University Belfast, Northern Ireland. His research, which has been published recently in a variety of outlets including the *Cambridge Journal of Economics* and the *Economic History Review*, is focused on institutional and evolutionary economics and economic history. He is a member of QUB's Economic & Financial Institutions Research Group (EFIRG).
- John Considine is a Lecturer in Economics at the Department of Economics, College of Business and Law, University College, Cork, Ireland. He has written about the economic thought of Edmund Burke and James M. Buchanan in the Journal of History of Economic Thought and in the European Journal of History of Economic Thought. He has also published in the Journal of Economic Education explaining how the TV show The Simpsons follows the satirical tradition of Jonathan Swift. John acted as research assistant to Terence Gorman during the summer of 1990.
- **Tadhg Foley** is a Professor of English at the Department of English, National University of Ireland, Galway, Ireland. He was educated at NUI, Galway and the University of Oxford. With Tom Boylan he is the author of *Political Economy and Colonial Ireland: The Propagation and Ideological Function of Economic Discourse in the Nineteenth Century* (Routledge, 1992). He is also the joint editor, with Professor Boylan, of both the four-volume anthology, *Irish Political Economy* (Routledge, 2003) and *John Elliot Cairnes: The Complete Works* in six volumes (Routledge, 2004).

#### x Contributors

- **Charles Hickson** is a former Senior Lecturer at the Queen's University Management School, Queen's University Belfast, Northern Ireland. He received his BA in economics from the University of Michigan in 1976 and his Ph.D. in economics from UCLA in 1986. He taught economics at both UCLA and The University of Washington. His research interests are in the area of economic and financial history, particularly from an evolutionary perspective.
- **Patrick Honohan** is Governor of the Central Bank of Ireland, Central Bank and Financial Services Authority of Ireland, Dublin, Ireland. He was previously Professor of International Financial Economics and Development at Trinity College Dublin and a Senior Advisor in the World Bank working on issues of financial policy reform. During the 1980s he was Economic Advisor to the Taoiseach and spent several years at the Economic and Social Research Institute, Dublin, and at the Central Bank of Ireland. A graduate of UCD and of the London School of Economics, from which he received his Ph.D. in 1978, Dr Honohan has published widely on issues ranging from exchange rate regimes and purchasing-power parity, to migration, cost-benefit analysis and statistical methodology.
- **Edward McPhail** is an Associate Professor of Economics at the Department of Economics, Dickinson College, Carlisle, Pennsylvania, USA. His research interests in the history of economic thought include path dependency and socialism, the role of endogenous preferences and human sociality, and the golden rule and the greatest happiness principle. With Andrew Farrant he is the author of 'Hayek, Samuelson, and the Logic of the Mixed Economy?' (*Journal of Economic Behavior and Organization* 2009). He is the author of 'Socialism After Hayek and Human Sociality' (*Review of Austrian Economics* 2008) and 'Does the Road to Serfdom Lead to the Servile State?' (*European Journal of Political Economy* 2005).
- **John Maloney** is a Professor of Economics at the University of Exeter Business School, Exeter, UK. He was previously at the University of Plymouth. He teaches macroeconomics, international finance and the history of political economy. His research interests are in macroeconomics and the history of economic thought. He is currently researching the macroeconomic policies of the 1970s and a range of topics on voting behaviour.
- Laurence Moss, until his untimely death in 2009, was Professor of Law and Economics at the Division of Economics, Babson College, Massachusetts, USA. He earned a BA and MA at Queens College, an MA and Ph.D. at Columbia University, and a Jurist Doctor (law) at Suffolk University. He was the author of several books and many articles on the history of economic thought, with *Mountifort Longfield: Ireland's First Professor of Political Economy* being one of his best-known works.
- **Peter Neary** is Professor of Economics at the Department of Economics, Oxford University, Manor Road, Oxford, UK. He is also a Professorial Fellow of

Merton College. Educated at University College Dublin and Oxford, he was Professor of Political Economy at University College Dublin from 1980 to 2006. He is the author of *Measuring the Restrictiveness of International Trade Policy* (with Jim Anderson, MIT Press, 2005) and of various scholarly articles, mainly on international economics. He is a Research Fellow of the Centre for Economic Policy Research in London, a Fellow of the Econometric Society and the British Academy, a Member of Academia Europaea and the Royal Irish Academy, and a past President of the European Economic Association.

- **Rence Prendergast** is a Reader in Economics at the Queen's University Management School, Queen's University Belfast, Northern Ireland. Her research interests are in development and the history of economic thought. Recent publications in these areas have been published in *Cambridge Journal of Economics, History of Political Economy and the European Journal of History of Economic Thought*. She is joint editor, with Antoin Murphy, of *Contributions to the History of Economic Thought: Essays in Honour of R.D.C. Black.*
- Salim Rashid is Professor of Economics at the Department of Economics, University of Illinois at Urbana-Champaign, Illinois, USA. His primary interests are in economic development and economic methodology. He has published in the areas of mathematical economics, history of economics and economic development. He is the author of *The Myth of Adam Smith* and takes special interest in Anglican clergymen-economists. The role of Christianity in the economic development of Europe and the impact of religion on economic development in general are two of his principal areas of study.
- John E. Spencer is Emeritus Professor at the Queen's University Management School, Queen's University Belfast, Northern Ireland. He was formerly a Lecturer in Economics at the LSE and Professor of Economics at the University of Ulster and the Queen's University of Belfast. Former Henry Fellow at Yale University, he is the author of many articles in Economics and Statistics journals. His publications include work on statistics, on financial intermediaries and on computable general equilibrium. He is co-editor of a book on the economies of both parts of Ireland and one on Northern Ireland and was the first President of the Irish Economic Association.
- John D. Turner is Professor of Financial Economics at Queen's University Management School, Queen's University Belfast, Northern Ireland. Previously he had been a lecturer at Queen's University and a visiting scholar at the Bank of England. His main research interest is in the evolution of law, property rights, and financial institutions. His work in this area has been published in the Journal of Economic History, the Economic History Review, the European Review of Economic History, and Explorations in Economic History. He has recently completed a major ESRC-sponsored project examining the evolution of the British equity market in the nineteenth century.

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### Introduction

#### Tom Boylan, Renee Prendergast and John D. Turner

The present work is the first substantial attempt to survey the history of Irish economic thought from the late seventeenth to the twentieth centuries. It builds on the foundations provided by R.D.C. Black's *Economic Thought and the Irish Question* as well as more recent contributions by Boylan and Foley (1992), Brewer (1992), Daly (1997), Johnston (1970), Murphy (1983, 1986) and Moss (1976). The approach taken is both thematic and focused on the contributions of individual economists, with the work organised into four chronological parts. The first of these, entitled 'Ireland and the birth of political economy', relates to the Irish contribution to pre-Smithian classical political economy. The second covers the rise and fall of laissez-faire in the century following the publication of the *Wealth of Nations*. The third part is devoted to the contributions of four individual economists who made pioneering contributions to modern economics in the late nineteenth and twentieth centuries. The final part surveys the development and contribution of political economy in the context of twentieth-century Ireland.

In attempting to delineate the scope of a work on Irish economic thought, two main approaches were considered neither of which is entirely satisfactory. One is to focus on the work of Irish political economists designating as Irish those who were born in Ireland and/or those who worked mainly in Ireland. The other is to focus on the work of those whose writings in political economy were concerned primarily with Irish issues. While there is something to be said for both approaches, the view taken here is that an exclusive focus on Irish issues would fail to take adequate account of important contributions to the more abstract parts of the subject. Consequently, our survey of Irish economic thought is based on the consideration of the work of significant Irish political economists and this is supplemented by an issues-based approach.

In determining who should be regarded as 'Irish' for this work, we have opted for an inclusive approach. We regard as Irish those political economists who were born in and educated in Ireland regardless of where they subsequently lived. We also include settlers such as William Petty, an Englishman who first came to Ireland as Physician General to Cromwell's army in 1652 and became interested in 'political anatomy' in the course of surveying the country in preparation for the confiscation of Irish lands. Richard Cantillon and Arthur O'Connor

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were Irish born and bred but spent much of their lives in France. Johnathan Swift and George Berkeley, both of Anglo-Irish stock, were born in Ireland and educated in Trinity College Dublin, but they were at home in England as well as Ireland. Francis Hutcheson, on the other hand, was the grandson of Scottish immigrants. A dissenter, he received his university education at Glasgow to which he eventually returned as Professor of Moral Philosophy. Francis Edgeworth and Terence Gorman were both educated at Trinity College, but spent most of their careers in British universities.

Whilst decisions about the designation of individual contributors as Irish or not-Irish provides a means of identifying the potential subject matter of a work on the history of Irish economic thought, it runs the risk of neglecting the contribution of British political economists such as John Stuart Mill who were deeply engaged with Irish matters particularly issues relating to land tenure. The same applies to the more peripheral contributions to Irish issues of Ricardo, Malthus, Senior and McCulloch.

Just as it was natural for British economists to consider Irish matters especially during the two centuries in which Ireland formed part of the United Kingdom, there was no necessity for those born in Ireland to focus on purely Irish matters especially if they made their careers elsewhere. Edmund Burke was not primarily a political economist and his work features only peripherally in this volume<sup>1</sup> but he provides a good example of someone whose contributions bore traces of his Irish upbringing but whose writings on political economy related to Britain and France and Britain's relationships with Ireland, America and India. As far as the abstract contributions of Cantillon, Edgeworth and Gorman are concerned, there is no discernable connection with the birthplace of their creators. The same also holds for some of the contributions of the likes of Berkeley and Geary, whose main body of work was primarily motivated by concerns about Irish conditions. The view taken here is that this makes the work in question no less Irish. Rather, it shows that Irishmen and, at times, groups of Irish men have made important contributions to the wider development of the discipline.

A focus on the work of significant theoreticians is by no means the whole story. As Oliver MacDonagh (1962) pointed out with reference to nineteenthcentury Ireland in his review of R.D.C. Black's *Economic Thought and the Irish Question* (1960), there were issues on which 'the theoretical economists limped behind – and often a considerable distance behind the native agrarian philanthropists and agitators in the development of economic thought'. What MacDonagh has in mind is the work of men such as William Conner and Frank Lawlor whose contributions were examined in some detail by Black. While important historically, the contribution of these authors is not primarily economic and is only briefly discussed in the present work. According to Cliffe Leslie, the historical political economy is not a body ... of universal and immutable truths, but an assemblage of speculations and doctrines which are the result of a particular history' (Cliffe Leslie 1870). If Leslie's relativist hypothesis is correct, a study of Irish political economy would be expected to uncover some specifically Irish characteristics either in terms of problems addressed, institutional assumptions made or approaches adopted. The work presented here demonstrates that there is some truth in Leslie's proposition. At various points in the development of Ireland's political economy, the questions which preoccupied its practitioners were the product of the particular conjuncture which included Ireland's complex and varied relationship with Great Britain and British political economy.

#### Economic backwardness and development

The question of how to overcome the country's relative backwardness was a consistent issue for Irish political economy from the late seventeenth century to the late twentieth century. However, except in the early eighteenth century, concern with this issue does not appear to have generated a recognisable political economy of development. In different time periods, the discussion focused on different issues or groups of issues whose relative importance varied over time. The contributions of what Rashid (1988) calls the Irish School of Development Economics (1720-1750) appear to have had a limited impact on actual development or even development policy, not because of any weakness in the proposals themselves, but because the distribution of rights over resources did not provide the necessary initial conditions. On the other hand, in his discussion of the Irish development experience in the second half of the twentieth century, Frank Barry in his chapter shows that policy and experiment often led theory rather than the other way around. For example, Ireland's experiments in incentivising foreign direct investment were not theoretically based. Likewise the somewhat controversial theory of expansionary fiscal contraction was a product of the growth experiences of Ireland and Denmark in the wake of fiscal contractions in the 1980s.

Despite the fact that there is no recognisably Irish school of development economics persisting over time, two related themes which arose early deserve our attention both because of their persistence and their wider significance. The first of these relates to the importance of an inclusive approach to development. Petty, Hutcheson and Berkeley all took the view that the cultivation of higher living standards and aspirations amongst the poor could help to break the vicious cycle of underdevelopment. This theme was re-iterated at the close of the eighteenth century by O'Connor (1998: 74); and, in the early nineteenth century, Ricardo, Malthus and McCulloch all saw the creation of a taste for objects other than food amongst the mass of the population as a necessary aspect of development (Black 1960: 137).

The second theme which also emerged with Petty relates to the social basis of development. In Book V of *Wealth of Nations (WN:* V.II.ii.2), Adam Smith (1976a) pointed out that the security of property requires the existence of civil government. Civil government, in turn, requires the consent of the ruled. The link between consent and the security of property rights and the importance of both for development had been recognised earlier by William Petty who in

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*The Political Anatomy of Ireland* wrote: 'Why should men endeavour to get estates, where the legislative power is not agreed upon; and where tricks and words destroy natural right and property?' (Petty 1899: 146).

In the century that followed, property rights were stabilised but as Arthur O'Connor argued in his *State of Ireland*, the existing monopoly of property was a major obstacle to Ireland's economic development. O'Connor argued that the laws which monopolised property also monopolised power and the direction which these laws gave to the descent of property influenced the nature of government. Entail and other restrictions which prevented the natural tendency of land to break into smaller portions were detrimental to productivity because small owner-occupied holdings were generally more productive than large holdings. A small proprietor would make more durable improvements because he had 'the whole benefit of his improvement secured to him and his family' (O'Connor 1998: 70–1).

O'Connor's proposals for revolution and reform came to nothing but, in the long run, they were to prove prescient. In the nineteenth century, most of the classical economists acknowledged that Irish agriculture was inefficient and backward and thought that the solution lay in supplanting the cottier system which had by then developed by capitalist farming, on the English model (Black 1960: 18). This, in turn, would have required the removal of a great part of the rural population from the land, something which could not happen given that the industry which might absorb this surplus population did not exist. Part of the explanation for this, canvassed by no less an authority than Ricardo, was the insecurity of property rights in Ireland. This, according to Senior, was 'the great evil of Ireland ... arising from the detestation by the mass of the people, of her existing institutions, and their attempts to substitute for them an insurrectionary law of their own' (Senior 1868: 50).

The insecurity of property rights encompassed a number of different dimensions. It may have discouraged the flow of foreign capital into Ireland as Ricardo had intimated. From the point of view of tenant farmers, insecurity of tenure and issues relating to tenant compensation acted as a brake on investment. Arguments for fixity of tenure and peasant proprietorship were put forward by members of the Young Ireland group including Thomas Davis and Gavan Duffy (Black 1960). Although such reforms might have been easier to achieve than the proposals of the classical economists, they were not viewed favourably either by established political economists or those who controlled wealth and power. Recognition of the wider possibilities for reform came only after the extraordinary upheaval of the Great Famine. Continental influences as well the contributions of Cairnes, Mill and others led to recognition that forms of tenure such as peasant proprietorship had much to offer in terms of efficiency and incentives.

What all of this appears to show is that development paths which are feasible in one situation or country may not be in another and that economic development has social dimensions and rests on a degree of social consensus. This is not merely a question of stability of property rights. As Frank Barry shows in his paper on Irish development in the second half of the twentieth century, the achievement of consensus around particular policies is no easy matter. Barry refers to the social partnership of the late 1980s as providing political cover for fiscal consolidation. This undoubtedly captures an element of what social partnership was about but policy is likely to be socially sustainable only if it generates sufficiently widespread benefits. This, of course, does not mean that reforms will always be implemented when they are potentially beneficial.

#### Ireland and the birth of political economy

This part chronicles the Irish contribution to political economy in the late seventeenth to the end of the eighteenth centuries. The four papers constituting this part deal with some of the pioneering contributions to modern political economy. Apart from Cantillon, the key figures were English and Scots colonists and their descendants. As Anthony Brewer suggests in the opening chapter, Petty's engagement with the colonial project through his conduct of the Down survey was a major turning point in his life and in his intellectual focus. It may also have provided him with the base data on which he developed his estimates of Irish national income. Petty's contribution to political economy is foundational for two main reasons. First, he tried to place political economy on a sound empirical footing, expressing himself in terms of *number*, weight or measure. Second, whereas most economic writing before Petty focused on international trade and money. Petty conceived the economic system as a whole and insofar as he examined international trade and money did so in the context of the wider system. Despite his declared antipathy to purely intellectual arguments, Petty appears to have had a natural tendency to theorise and, as Brewer puts it, spun off ideas in profusion although many of these remained underdeveloped.

Cantillon was born in Ireland but became part of the Irish Catholic diaspora in France. Emerging as a banker in Paris, he profited greatly from the John Law's Mississippi Scheme and later from the South Sea Company in London. The *Essay* on which Cantillon's fame rests was first published in 1755, twentyfive years after it was written and over twenty years after his probable death. Described by Jevons as 'the cradle of political economy', the *Essay* is a work of pure theory that analyses the economy as an integrated system. As Brewer notes, Cantillon brushes ethics and politics aside and focuses on material wealth as his subject matter. He provides a clear exposition of the role of prices in linking production and consumption, an endogenous theory of population growth and a sophisticated version of the quantity theory of money. Despite being a work of pure theory, the *Essay* is clearly the work of an acute observer who is thoroughly familiar with the workings of the economic system. This suggests, as Brewer notes, that the contrast between the approaches of Cantillon and Petty would seem less striking if we had access to Cantillon's lost statistical supplement.

Chapter 2 deals with Swift and Berkeley's approaches to economic development. In doing so, it shows that the two authors have an expansive concept of human well-being and that they have a sophisticated view of the human actor which they liken to the modern capability approach of Amartya Sen, (1999). Both authors sought to develop real world, practical policies which were relevant to the pressing economic problems of the time. Despite their common approach to human development, there were a number of important differences between the authors. This is especially the case with regard to the issues related to money and banking where Berkeley's practical and theoretical understanding as displayed in *The Querist* was much superior to Swift's.

Rashid and McPhail's emphasis on human development in Berkeley and Swift ties in neatly with the debates on the nature of the human economic actor which took place in the first half of the eighteenth century which are discussed by Prendergast in Chapter 3. Jonathan Swift had a marginal role in this debate, but Francis Hutcheson and George Berkeley were amongst the leading opponents of Bernard Mandeville who, in a clear challenge to Christian ethics, had argued in his Fable of the Bees that private vices were not only consistent with the public good but were in fact necessary to promote economic prosperity. The strong version of Mandeville's thesis depended on a very stringent definition of vice and the juxtaposition of two quite different moral standards. Of the three Irish writers, only Swift can be regarded as having comprehensively rejected the utilitarian point of view. Berkeley was a theological utilitarian in that he believed that the happiness of mankind in this world and in the next was the proper end of human action. However, because of the fallibility of human agents, he considered that the happiness of mankind was best pursued by following general moral rules that were arrived at through experience. Hutcheson's position is a bit more complicated. In his view, objects or actions were pursued not because of advantage or interest but because they were approved by the moral sense. Nonetheless, when it came to choosing between different available actions, utilitarian considerations came into play and that action was judged best which produced the greatest happiness for the greatest number. Hutcheson was also very clear that while benevolence might be a motive for action in matters relating to family and friends, in relation to mankind in general it would be insufficient to secure universal diligence.

Hutcheson's view that benevolence which could motivate action in relation to family and friends was inadequate when it came to wider economic relationships was to be reflected in the work of his student, Adam Smith. In his *Theory of Moral Sentiments*, Smith (1976b) focused on moral questions but he accepted that self-interest was the prime motivating factor in the *Wealth of Nations*. In his *State of Ireland*, Arthur O'Connor adopted the framework of the *Wealth of Nations* including its emphasis on self-interest and used it to analyse the economic condition of the country at the end of the eighteenth century. As Blackshields and Considine show in the final chapter in this part, O'Connor went beyond Adam Smith in his application of *homo economicus* to the governance of a country and his exploration of the implications of that governance for economic performance. No one before O'Connor seems to have engaged in this decidedly modern enterprise. The chapter also demonstrates that Connor's radical legacy was taken forward by his nephew, Fergus O'Connor of Chartist fame and by his illegitimate son, William Conner. As noted above, the latter

analysed the implications of the land tenure system and made important proposals for reform before the need for these was recognised by more established political economists.

#### The classical era: the rise and fall of laissez-faire

Like Hutcheson and Berkeley before him, Richard Whately, Archbishop of Dublin, saw the pursuit of wealth and good as compatible objectives. As Laurence Moss shows in the opening chapter of Part II, Whately and the occupants of the chair of political economy he founded at Trinity College were proponents of a species of natural theology according to which political economy showed the beneficent nature of the status quo from which all classes of society could benefit. At least in the 'wrong' hands, the dominant Ricardian approach to political economy could be used to highlight the distributional conflict between landlords, capitalists and workers. By focusing on exchange instead of production and on market values instead of labour values. Montifort Longfield and other members of the 'Trinity School' could show that there was a general tendency for the three classes to prosper together. Whatever their purposes, the Whately professors were no mere ideologues. Longfield offered a deeply original account of how supply and demand interacted to establish market prices which in important respects anticipated the marginal approach which became dominant after 1870. Longfield's work was taken forward by Butt who focused his attention on the development of Longfield's insights with respect to the marginal productivity theory of distribution. Partly because their work was ignored by the likes of Mill and Cairnes and partly because the intervention of the Great Irish Famine meant that the later occupants of the Whately chair had very different preoccupations, these pioneering analytical contributions of the Trinity school were not carried forward.

While the industrial revolution proceeded apace in early nineteenth-century England, in Ireland the majority of the people remained dependent on agriculture the productivity of which was, therefore, a key economic issue. Broadly speaking, before the Great Famine, the classical economists focused their attention on the consolidation of holdings and the provision of appropriate incentives to encourage investment including in some cases compensation for tenants. The issue of free trade in land also received attention towards the mid-century. While some of its advocates believed that, by itself, free trade in land would be sufficient to ensure that land would eventually be held by those in a position to use it most effectively, other advocates argued that measures facilitating transfer of ownership should be combined with provision for tenant compensation (Black 1960: 33). In his chapter on the classical economists and reform legislation of landed property, Charles Hickson examines the classical economists' analysis of the strict settlement system which prevented free trade in land. Hickson argues that the settlement system had some social advantages which were overlooked by the classical economists. Hickson also carries out a detailed examination of the analysis of the landlord-tenant relationship provided by McCulloch and

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Senior whose focus was primarily on efficiency issues, and contrasts it with the work of John Stuart Mill and John Elliot Cairnes who he regards as being interested in redistribution as well as efficiency. The influence of Mill and Cairnes on subsequent legislation is examined and its shortcomings are identified. While much of the writing of the period correctly identified the incentive issues associated with different forms of land tenure, Hickson argues that various proposals for reform were deficient in failing to take into account the transaction costs associated with the compensation of tenants.

Although writers such as McCulloch provided a detailed analysis of the incentives for investment provided by different contractual relations between landlords and tenants, they tended to accept the absolute nature of property rights in land. The first orthodox economist to challenge the absolute nature of property rights was John Elliot Cairnes. As Boylan and Foley demonstrate, Cairnes' argument against the absolute nature of property rights had a number of different facets. First, he contrasted the absolutist view of the landlord's property rights with the view that that the landlord had no claim to the value added to the land by others. Second, and more radically, he argued that the landlord's right should be subordinate to the public welfare. In general, Cairnes argued that laissez-faire could not be justified where the pursuit of individual interest was not consistent with the good of the whole.

Cairnes' doctrine of the limited nature of landed property became widely accepted and with it came acceptance that the contract between owners and cultivators of land could be interfered with by law. The acceptance of the limited applicability of the doctrine of laissez-faire had wider implications in that it undermined the notion that political economy was a body of natural laws or immutable truths and paved the way for the development of historical economics.

In his chapter on the Irish historical economists, T.E. Cliffe Leslie and John Kells Ingram, Roger Backhouse shows that Cliffe Leslie was the leading figure in the historicist school which represented the strongest challenge to English classical political economy in the 1870s. Both Ingram, a follower of Comte, and Leslie emphasised the importance of broad historical influences for the nature of economic activity in any given period. Given the importance of particular history, deductive methods which abstracted from particularity could not provide the basis for scientific analysis. Moreover, the evolutionary nature of economic life meant the future could not be known and the knowledge assumptions implicit in deductive approaches to analysis were likely to be seriously misleading. Backhouse notes that Leslie and Ingram are commonly regarded as leaders of the English Historical School. This is not just a matter of Imperial prejudice but reflects the fact that both authors were integrated into British economics and did not form part of a separate Irish economics community. Although there had been intimations of an historicist position in political writings of Edmund Burke in the late eighteenth century, Cliffe Leslie's historical economics seems to have owed more to the historical jurisprudence of Henry Maine than it did to his fellow countryman.

John Elliot Cairnes is often regarded as the last of the classical economists. However, Boylan and Maloney's chapter shows that Charles Francis Bastable who occupied the Whately Chair of Political Economy in Trinity College for a full half century combined a commitment to the classical tradition with a commitment to the broader evolutionary perspective derived from his acquaintance with the work of the German Historical School as well as the work of his compatriots Leslie and Ingram. Bastable's main contributions to economics were in the field of international trade where he is regarded as one of leading theorists of his generation. Most of Bastable's contributions were refinements or extensions of international trade theory as it had been left by J.S. Mill. Broadly speaking, Bastable was a strong proponent of free trade and developed a particularly stringent test for the applicability of the infant industry argument. Perhaps not surprisingly, the Fiscal Inquiry Committee set up to consider the case for increased protection in the new Irish State found reasons to take no action. Bastable's other major contribution to economics was in the field of public finance.

In the final chapter of Part II, John Turner examines Irish contributions to nineteenth-century monetary and banking debates. Turner shows that the suspension of convertibility into gold at the end of the eighteenth century was accompanied by the depreciation of the Irish currency. A Parliamentary Committee of inquiry was set up in 1804 to identify the causes and seek remedies. Antibullionists attributed the depreciation to the adverse balance of payments whereas pro-bullionists argued that the cause was lax monetary policy attributable to the suspension of convertibility. The latter position was that articulated in the Committee's final report which, however, acknowledged that the expansion of credit could be justified as a source of emergency war time finance. Although the report was largely ignored by Parliament, it had a significant impact on the pro-bullionist Bullion Report of 1810.

In a pamphlet which he published in 1804, Henry Parnell suggested that parliamentary oversight over the Bank of Ireland restrained the issue of paper as it had done in the case of the Bank of England. Just over twenty years later, Parnell's views had changed dramatically and, instead of parliamentary oversight, he argued that the Bank of England should be subject to the discipline of competition. Parnell's later work is widely regarded as the first major contribution to the free banking school of monetary theory. In the event, the free banking school lost the policy debate in the 1840s and, as a result, its influence waned.

## Into the twentieth century – Irish contributions to economic theory

Part III of the present work examines the contribution of three of Ireland's greatest theorists: Francis Ysidoro Edgeworth, Roy Geary and Terence Gorman. Edgeworth and Gorman were born in Ireland and educated in Trinity College Dublin but did their main economic work in British universities. Both were amongst the leading theorists of their generation and made major lasting contributions to economic analysis. Roy Geary studied mathematics at University College, Dublin and

in the Sorbonne in Paris. He was one of the leading statisticians of the twentieth century and although his economic contributions were a minor part of his overall work, they were of major significance in their own right.

Edgeworth's many contributions to the foundations of economic analysis are familiar to students of modern microeconomics. However, because they have been absorbed into the common stock of knowledge, the original source of these contributions has mostly been forgotten. Furthermore, as noted by Baccini, the process of absorption may have involved distortion of Edgeworth's original vision. Thus, in discussing Edgeworth's two equilibrium concepts, Baccini notes that Edgeworth's central interest was the indeterminateness of contracts and not the conditions for their perfect determination. Baccini's chapter is not simply interested in Edgeworth the economist. Rather his purpose is to uncover the unity in a pattern of research which switched abruptly from ethics, to economics, to probability theory and finally to statistics. Baccini shows that underlying what is often seen as Edgeworth's crass utilitarianism was a search for a common foundation for the social sciences. Edgeworth's conception of man as a pleasure machine depended on the possibility of roughly measuring utility and, for him, the calculus of probability was based on the possibility of roughly measuring probability. For Edgeworth, both measurement processes were grounded in the Spenserian view that the human nervous system incorporates a priori knowledge within its structure.

Roy Geary is best known for his contributions to mathematical statistics especially his work on the sampling theory of ratios and normality testing but, as John Spencer shows, these theoretical contributions which were produced while he worked as an official statistician or as director of the Economic Research Institute were primarily the result of thinking about practical problems. In addition to his theoretical work, Geary also made important contributions of a more applied nature to both economics and statistics. These were also motivated by practical difficulties and involved innovative solutions to the problems associated with the estimation of economic variables. The most important of Geary's economic contributions arose in the context of National Income Accounting, a field in which Geary can be regarded as a pioneer of approaches based on value added at constant prices. Geary's innovations included methods of estimating the trading gain from changes in the terms of trade which can influence the purchasing power of the incomes generated from domestic production. He also developed methods for dealing with the problem of using official exchange rates in international comparisons of flows expressed in different currencies. As Spencer indicates, both of these contributions had lasting impact and form part of the current guidance provided in the UN System of International Accounts. Other important contributions were the Stone-Geary utility function and techniques for updating input-output tables. Geary appears to have been the first to advocate and analyse the use of instrumental variables in econometric estimation. In papers delivered at the Statistical and Social Inquiry Society of Ireland, Geary also made important contributions to Irish demography and to the analysis of the problem of emigration.

Like Roy Geary, Terence Gorman emphasised the use of quantitative methods in economic reasoning but, unlike Geary, he believed in the value of economic theory as an engine of thought. One of Gorman's main interests was the relationship between individual behaviour and aggregate outcomes and he explored aspects of this in his very first paper published in *Econometrica* in 1953 in which he established necessary and sufficient conditions under which a society of utility maximising individuals behaved as if it were a single individual. In addition to the exploration of the relationship between micro and macro levels, Gorman was also interested in the modelling of individual behaviour. He believed that a good theory should be realistic and psychologically plausible. At the same time, he understood that the theoretical representations of individual actions had to be such that they were algebraically tractable. Much of Gorman's work on separability including his investigations of two-stage household budgeting were the product of his quest to provide credible representations of human behaviour in a framework of appropriate simplicity. Gorman also explored the use of characteristics-based models of demand. His work on this area was initially presented in 1956 as an exploration of quality differences in the egg market and eventually published in 1980. As Honohan and Neary show, Gorman's work on characteristics appeals to the same arbitrage logic as the option pricing models of Black, Scholes and Merton.

## Policy and economic development – shifting economic paradigms

Whereas Part III focuses on the work of three major contributions to modern economic and statistical theory. Part IV provides a broader overview of the development and contribution of political economy in twentieth century Ireland. It has been suggested that, in decades following independence, Irish academic economists were conservative in both outlook and methodology and that innovations in both policy and methodology were largely the work of civil servants. This view is disputed by Brownlow who argues that, despite a lack of resources, economists such as George Duncan of Trinity and George O'Brien of University College displayed considerable originality and saw the importance of educating students in statistical and econometric techniques. Brownlow points to the importance of the Journal of the Statistical and Social Inquiry Society of Ireland and *Studies* as fora both for debate and the communication of ideas and research. These journals covered major policy-related issues such as the modernisation of agriculture, emigration, the relevance of Keynesianism in the Irish context, the role of planning in the post-war economy but surprisingly not the change in trade policy in the 1930s. Brownlow demonstrates that from the 1960s onwards, Irish economics increasingly came under American influence. The Ford Foundation supported the setting up of the Economic and Social Research Institute, and graduate students increasingly received their training at Schools in the United States. Brownlow suggests that the increase in the number of professional economists and the pattern of internationalisation and formalisation in Ireland

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followed the broad patterns identified earlier by Coats (2000). Brownlow also suggests that, in line with a pattern noted by Harry Johnson (1973), the economics profession in Ireland in the late twentieth century consists of a small elite group contributing to international journals with the bulk of the profession concerned with local problems and local outlets.

In the final chapter of the work, Frank Barry attempts to uncover the factors leading to Ireland's rapid development in the late twentieth century. Barry suggests that global increases in foreign direct investment in the second half of the twentieth century as well as the creation of the European single market created opportunities which were not available earlier. However, it was by no means automatic that Ireland would be able to take advantage of these opportunities. Barry shows that opening up to free trade and the removal of restrictions on foreign ownership were not enough. The development of the education system, the correction of malfunctions in the labour market, the overcoming of fiscal instability, policies to attract foreign direct investment, EC regional aid and the promotion of microeconomic reform were also important. Many of the reforms which, in retrospect, proved to be successful were initiated by public servants and presented as transcending party politics. However, it is also clear that major policy changes required a degree of political consensus which was usually achieved only following periods of severe crisis. This was the case with the 'Whitaker' reforms of the late 1950s and it was also the case with the fiscal and labour market reforms of the late 1980s and early 1990s. Barry also notes the importance of the political cover provided by external rules such as the restraints on national budgets introduced by the Maastricht Treaty. While economics may have contributed to policy innovation, it does not appear to have led it. Economics does not always provide clear or unique solutions. Even where it does, it is one thing to know what needs to be done, it is another to actually do it.

#### Conclusion

In summary, the contributions to this volume suggest that there is no distinctly national tradition in Irish political economy. Instead, individual Irish economists have made significant contributions to the wider discipline and debates centred upon specific Irish problems have influenced the nature of economists' concerns and have sometimes led to innovations in theory as well as wider economic vision. Present-day Irish economists work mainly on issues which have a bearing on the Irish economy and society though some contribute to the wider development of the discipline. Amongst Irish-based economists, Peter Neary, formerly of University College Dublin and presently at Oxford, has made important contributions in the field of international trade theory including pioneering work on Dutch Disease and strategic trade and industrial policy. Work by Philip Lane of Trinity College in the field of international macroeconomics is also widely cited as is that of Kevin O'Rourke, also of Trinity, in the field of globalisation. Morgan Kelly of UCD has contributed to the theory of growth and development while Patrick Honohan has made important contributions in applied macroeconomics. In terms

of specific Irish economic issues, the work of Cormac Ó Gráda, particularly that on the Great Famine, has found a wide international audience.

In keeping with tradition, however, some of the most important work by Irish economists has been carried out in universities in the United States and the United Kingdom. Brian Arthur of Santa Fe Institute has made leading contributions to the understanding of increasing returns and the phenomenon of lock-in. His pioneering work has also contributed to the understanding of technological evolution and to the conception of the economy as an evolving complex system. John Sutton of the London School of Economics has made major contributions to the economics of industrial structure, to the understanding of the role of sunk costs and to non-cooperative bargaining theory. David Canning at Harvard has made important contributions on health and its relationship to development, while Canice Prendergast of the University of Chicago is a leading authority on the economics of bureaucracy and the role of economic incentives.

#### Note

1 Aspects of Burke's contributions to political economy are discussed in Considine (2002) and Prendergast (2000).

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Part I

# Ireland and the birth of political economy

## 1 The Irish connection and the birth of political economy

Petty and Cantillon

Anthony Brewer

William Petty (1623–87) and Richard Cantillon (1680–1734) were perhaps the two most important figures in the development of economic thinking before about 1750. Both had strong Irish connections, though in quite different ways. Petty was not Irish, but wrote about Ireland and spent a substantial part of his adult life there. Cantillon, by contrast, was Irish by birth but spent most of his adult life in France. His writing was primarily theoretical, with no special reference to Ireland – the only specific reference to Ireland in his *Essay on the Nature of Commerce in General* was to Petty's work. Petty was a key point of reference for Cantillon, while Cantillon was in turn an important influence on Quesnay, Adam Smith, and the classical tradition in economics.

#### **Petty in Ireland**

Petty was the son of a small clothier in the south of England.<sup>1</sup> Like Cantillon two generations later, he was a self-made man, determined, ambitious, and remarkably able. He went to sea in his early teens, making money on the side by small-scale trade. Put ashore in France with a broken leg, he improved his education at a Jesuit college. Back in England, he was in the navy for a while but left the country to study medicine when the civil war broke out, and worked for a time with the great philosopher Thomas Hobbes in Paris. In England again, he started to take his place among the group which became the Royal Society – the founders of modern science. In 1650 he was appointed Professor of Anatomy at Oxford at the age of twenty-six and, soon after, Vice-Principal of Brasenose College, Oxford and Professor of Music at Gresham College, London. Achievement enough you might think for one who had been an uneducated cabin boy barely a dozen years before, but Petty was not satisfied.

In 1652 he took up a position as physician to the parliamentary army in Ireland. By then, Cromwell's bloody re-conquest was complete and Ireland was at the mercy of the Cromwellian regime. Petty had been angling for an opportunity to take part in (and profit from) the remaking of Ireland. He did indeed reorganise the army's medical provision with some success, but soon moved on to larger, more profitable, business.

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The key issue in Ireland was the transfer of land from the defeated royalists to new owners. To finance the war, Parliament had, effectively, sold Irish land to English 'adventurers', to be delivered after the successful conquest, and had promised land to the soldiers to settle pay arrears. To carry out these promises, they had to identify particular pieces of land of known size and quality, and transfer ownership to identified people. This had to be done over a substantial part of the country, and done quickly. In 1652, they simply did not have the information to do it. A first attempt at a listing of estates, rather than a map, was proceeding slowly and did not fully meet the needs of the army.

Petty proposed a mapping of the confiscated lands (which covered much of Ireland) showing units as small as forty acres, with a less detailed survey of other lands in the counties concerned, all to be carried out in thirteen months. He divided the work so that the surveying on the ground was carried out mainly by soldiers, motivated by the fact that they expected to benefit personally from the division of lands, while their measurements were turned into a finished map by more skilled (and scarcer) personnel. All those involved had to be trained and supplied with simplified, mass-produced, instruments. It was a remarkable feat – perhaps the best map of any country at the time and 'a milestone in the history of cartography' (Strauss 1954: 71), despite being surveyed in haste by unskilled soldiers in a devastated and hostile country.

The Down Survey (as it came to be known) was done on time and under budget, leaving Petty with a substantial profit. He bought land cheaply, ending up with large holdings, particularly in County Kerry.<sup>2</sup> His Irish estates brought in rents of £4,100 p.a. in 1685 (Strauss 1954: 82), perhaps £500,000 in present-day purchasing power, though his huge estates in Kerry were relatively unprofitable, yielding only £1,100. His overall income, including nonagricultural enterprises in Kerry and property in England, was about £8,000 to £9,000 p.a. (equivalent to about £1 million now).

Not surprisingly, Petty's blatant self-enrichment came under fire and he faced a series of crises. He became personal secretary to Cromwell's son Henry, but the enemies of the Cromwell dynasty saw their chance to attack the regime through Petty. He was charged with corruption, and found himself dangerously exposed when (Oliver) Cromwell died in 1658. When the monarchy was restored in 1660, Irish royalists expected to get their estates back. In the event the king could not afford to challenge Cromwell's settlement head-on, but Petty had to yield some of his gains. When James II succeeded, Irish royalists and Catholics again saw the chance to pursue Petty in the courts. One way or another, Petty spent much of the rest of his life defending his gains.

He married a well-to-do widow, adding English properties to his portfolio, and made strenuous efforts to develop his Irish properties. From the late 1650s he divided his time between London, Dublin, and his various estates. His economic writings all date from this period. He died in 1687.

#### **Political arithmetic**

'Political arithmetic' was Petty's name for his distinctive approach to economic issues, influenced by Francis Bacon and the new physical sciences – the name 'political economy' had not yet come into general use.<sup>3</sup> He gave his own definition in 1676.

The method I take ... is not yet very usual; for instead of using only comparative and superlative words, and intellectual arguments, I have taken the course ... to express my self in terms of *number*, *weight*, or *measure*; to use only arguments of sense, and to consider only such causes, as have visible foundations in nature; leaving those that depend upon the mutable minds, opinions, appetites, and passions of particular men, to the consideration of others.

(Petty 1899: 244)<sup>4</sup>

Petty's political arithmetic was always aimed at current political issues and directed to policy makers. It was not quite economics in the modern sense, since there was then no clear division between economics, politics, demography, geo-graphy, and so on.

Few of his economic writings were published in his lifetime – publication was not the route to success or influence and could be dangerous, particularly since Petty relied on official support to defend his Irish holdings. His economic writings aimed to influence and impress the King and important royal officials, and were circulated privately. Many were posthumously published when the political situation had changed.

Ireland bulks large in Petty's writings. The *Political Anatomy of Ireland*, the *Treatise of Ireland*, and the two sets of *Observations on the Dublin Bills of Mortality* amount between them to about 40 per cent of Hull's (1899) collection of the economic writings, and Ireland also features in other items.

The *Political Anatomy of Ireland* (Petty 1899: 121–231), written in 1671–72 when Petty was based in Ireland, is among his most substantial works and demonstrates both his approach to economic issues and his view of Ireland. It starts by accounting for the lands of Ireland, measured in thousands of acres, classified by quality and by ownership, separating out the confiscated land and showing its redistribution, and estimating the total annual income generated from it – all this, presumaby, based on the Down Survey. The objective data is complemented by more partisan remarks: for example, those found innocent of rebellion could recover their lands, but 'of those adjudged innocents, not 1/20 were really so' (ibid.: 141).

Next, Petty estimated the number of people, classified by religion and national origin (Irish, English, Scots), and the number of houses, classified by the number of chimneys, which he used as an indicator of wealth (data was available from a tax on hearths). He also tried to divide the population by occupations and to estimate the amount of un- and under-employment. As an example of his

methods, consider alehouses: Dublin, he said, had a population of 4,000 families,<sup>5</sup> 1,180 alehouses and ninety-one 'public brew-houses'. Assuming the same proportions throughout Ireland, he deduced that there were 180,000 people employed in this trade, and that two-thirds could be spared 'even though the same quantity of drink be sold', so 120,000 people could be reallocated to some other trade (ibid.: 146-7). He applied much the same approach to priests of all denominations. In the Report of the Council of Trade in Ireland, a sort of executive summary of the *Political Anatomy*, he proposed that 'the exorbitant number of popish-priests and fryars, may be reduced to a bare competency, as also the number of ale-houses' (ibid.: 223). The basic features of Petty's approach emerge even from this brief summary. He was interested above all in numerical totals, using whatever data came to hand coupled with heroic simplifying assumptions when necessary. His proposals are often purely technocratic - a certain task could be done by fewer people - with little consideration of the economic mechanisms involved but with a complete (Hobbesian) faith in the right of the state to concern itself with the number of 'popish-priests', ale-houses, or anything else.

The section dealing with Irish trade is a further example of the strengths and weaknesses of his approach. He started with a division of the population into 16,000 families with houses with more than one chimney (the better off) and the remainder (less well off). The latter are assumed to spend 52 shillings a year, so their total income can be estimated ( $180,000 \times 52$  shillings), and similarly for the better off, assumed to spend £10 p.a. The poor buy no imported goods, apart from tobacco, while the better off spend 10 per cent of their income on imports. These are very crude estimates, but they were better than anything else at the time. Most previous economic writings focused on international trade and on money. Petty did not ignore trade or money, but set them in the context of the basic facts of resources, population, and so on. It was a critical step towards the concept of the economy as a system.

A single page in the Hull edition (Petty 1899: 192), can serve to show why Petty is seen as a founding influence in economics, but also how far he was from realising the potential of the ideas he spun off in such profusion. The page starts with a parenthetical remark that the Irish use turf (peat) rather than wood as fuel, before commenting that most of the population have little use for trade, 'nor scarce anything made outside their own village'. There follow two pregnant digressions. First, Petty asked whether it would be better to restrain the luxury of the rich or to 'beget a luxury' in the 950,000 poor 'so as to make them spend, and consequently earn double what they presently do?' He answered, not surprisingly, that it would be better to increase 'the splendor, art and industry' of the majority, and then dropped the subject. This brief comment could be read as foreshadowing Keynes and effective demand or, more plausibly, as pointing to the line of argument developed by Mandeville and Hume in which a taste for luxury provides the incentive for development, but Petty never developed such a potentially important insight. Second, he asked 'why should we forbid the use of any foreign commodity ... when we can employ our spare hands and lands upon such exportable commodities as will purchase the same and more?' Again, he took an important argument no further. He then moved on to consider the size of the money stock relative to total spending (that is, implicitly, the velocity of circulation). All of this on one page (though not all his pages are quite so brilliant or so frustrating).

By the date of the *Political Anatomy of Ireland* the Irish economy had recovered substantially from its dreadful state in 1650. Petty argued that the poor people of Ireland were better clothed and had 'more Money and Freedom' than ever (ibid.: 203). Even so, incomes were lower than in England and there was widespread under-employment. He rejected the idea that this was due to laziness:

Their lazing seems to me to proceed rather from want of employment and encouragement to work ... for what need they to work, who can content themselves with potatos, whereof the labour of one man can feed forty?... Why should they raise more commodities, since there are not merchants sufficiently stocked ... nor provided with other more pleasing foreign commodities, to give in exchange? And how should merchants have stock, since trade is prohibited and fettered by the statutes of England?

(ibid.: 201–2)

This, and other passages suggest that Petty saw considerable potential in the Irish economy, provided trade restrictions were lifted. In the associated *Report* of the Council of Trade in Ireland he estimated that there might be 250,000 unemployed 'spare hands' who could earn £1 million per year in total if found employment, a measure of the potential for improvement (ibid.: 217). He went on to propose the removal of various restrictions on trade and the union of Ireland and England under a single legislative power.<sup>6</sup>

*Political Arithmetic* was probably started in about 1671, the same time as the *Political Anatomy of Ireland*, but not completed until around 1676. It is mainly concerned with England's wealth and potential military muscle, proposing a number of propositions such as:

That a small country, and few people, may ... be equivalent in wealth and strength to a far greater people and territory. ... That France cannot ... be more powerful at sea than the English or Hollanders.... That the people and territories of the King of England are naturally near as considerable, for wealth and strength, as those of France.

(Petty 1899: 247)

This was written during the reign of Charles II, when Louis XIV of France was bidding for hegemony in Europe and England was seen as a second rate power. Petty used his familiar method of building up numerical estimates of population, incomes, and so on, to argue that England had the capacity to match France. Within a generation he was proved right when Marlborough drove back Louis

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XIV's generals using roughly the forces and revenues that Petty had argued were possible. This was a remarkable feat of prescience, and shows the practical strength of Petty's political arithmetic.

There is, however, what seems an odd reference to Ireland:

And here I beg leave ... to interpose a jocular, and perhaps ridiculous digression, and which I indeed desire men to look upon, rather as a dream or resvery, than a rational proposition; the which is, that if all the moveables and people of Ireland, and of the highlands of Scotland, were transported into the rest of Great Brittain; that then the King and his subjects, would thereby become more rich and strong.

(Petty 1899: 285)

Can this have been intended seriously? To move the whole population of Ireland to England? As quoted above, Petty described it as 'perhaps ridiculous' and as a 'dream', but in 1687 he presented James II with a fully worked-out proposal to move three-quarters of the population of Ireland to England. Petty was dead within months, James was driven from his throne soon after, and nothing came of it.

Radical plans for Ireland were not new. Moving the Irish to England had been proposed before, in 1599 (Foster 1988: 35). Parliament had tried (with only moderate success) to move much of the Irish population of Munster, Leinster and Ulster to Connacht, and large 'plantations' of English incomers had been brought to Ireland. Large population movements were not ruled out of consideration.

Petty's basic argument was simple (Petty 1899: 554–74). Living standards in England were higher than in Ireland – the average person in Ireland spent £5 p.a., while in England the average person spent £6 13s 4d (£6.66), and might well earn more and save the difference. Each person transferred from Ireland to England would enjoy an increased income, while rents and tax revenues in England would increase (at least) in proportion to the increase in population. Petty wanted to move one million of the Irish population of 1.3 million, leaving 300,000 in Ireland, which would be converted to pasture for six million head of cattle. With free access to the English market for beef and a reduced workforce (paid at English rates), rents in Ireland would be half as high again.

The king would gain in revenue, landowners in both places would gain, as would the people transferred. Petty argued that the gains would greatly exceed the costs. The security situation would be transformed. The 300,000 remaining in Ireland would be too few and too scattered to be a threat, so the cost of policing Ireland would fall massively. The inflow of Catholics from Ireland would soon be absorbed into the much larger English population.

He considered the objection 'that this transplantation ... amounts to an abolishment of the Irish nation: which will be odious to them and not compensable by any of the benefits' (ibid.: 577). He answered that his proposal was intended as a union of the two nations, 'which is a real blessing to both' (ibid.: 577), and that the Irish would be 'ingrafted and incorporated into a nation more rich, populous, splendid and renowned than themselves' (ibid.: 578). Not all will find this a convincing response, but Petty was confident enough to think that the transfer could be done on a voluntary basis.

From an economic point of view the key assumption was that a million Irish added to the labour force in England would add (at least) proportionately to output. Petty assumed that each Irishman or woman would be as productive individually as the English, given the same opportunities, since low productivity in Ireland was (he thought) due to a lack of incentives, and there would be advantages to increased population density, for example in improved communications and reduced transport costs. But he also implicitly assumed that there would be no scarcity of land or other resources in England, so that an enlarged labour force could be absorbed rapidly with no fall in productivity. This is more doubtful. Later (classical) writers treated population as endogenous, assuming that the population was limited by the land and/or the capital stock. In that case, there would be no jobs in England for a large influx from Ireland.

There is no sign that anyone (apart from Petty himself) took his proposal seriously, but it does point to an important aspect of his work. Petty treated population growth as an independent determinant of economic growth, rather than a result of it. He wrote about the rate and the determinants of population growth, for example in his papers on the Dublin bills of mortality (Petty 1899: 479–98), basing himself on Graunt's study of the London bills of mortality (Petty 1899: 314–435), now seen as the foundation of modern demography. Graunt and Petty were friends – it has been suggested that Petty collaborated with Graunt, and even (less plausibly) that he was the real author of the work published under his friend's name.

Petty explicitly rejected 'intellectual arguments' in favour of arguments based on 'number, weight or measure' in his definition of political arithmetic (cited above), but much discussion of his economics has focused on a number of 'intellectual arguments' which appear as digressions in his writings and point to ideas developed by later writers, if not by Petty himself.

Most prominent among these is the idea of surplus,<sup>7</sup> that is, the idea that a person or, more realistically, a number of people can produce more of the necessities of life than they themselves need to live on. The fraction of their output that they do not need themselves can support others – soldiers, landlords, priests, and so on. Petty's most quoted example, 'if there be 1000 men in a territory, and if 100 of them can raise necessary food and raiment for the whole 1000' (Petty 1899: 30), appears in a discussion of unemployment. The point is that if only 100 are required to produce necessities, while others are required for other activities (400, for example, produce luxuries and 200 are 'governors, divines, lawyers'), 100 might still be left without work.<sup>8</sup>

A different angle appears in a digression on rent. Petty imagined a man who raises corn, performing all the necessary operations himself.

I say that when this man hath subtracted his seed out of the proceed of the harvest, and also what himself hath both eaten and given to others in