

<p>Institution: Queen's University Belfast</p>
<p>Unit of Assessment: 19</p>
<p>a. Overview</p> <p>Business and Management research at Queen's spans the core disciplines of management, finance, economics and accounting. Our research interprets unfolding patterns of economic, business and social life in a manner that fosters new theories and ideas; engages in empirical research grounded in current practices; and develops suggestions for public policy as well as for institutional and organizational innovations. The core purpose is to deepen understanding of how markets, business organizations and social institutions evolve over time.</p> <ul style="list-style-type: none"> • Since 2008 the Unit has continued to expand and we have successfully recruited high calibre staff at all levels. More than a quarter of the staff returned have been appointed in the past five years. • The Unit has moved to a £12 million new facility that includes a listed building and a new purpose-built Management Unit. This signals strong institutional endorsement of the Unit's research, educational and leadership mission. • The Unit has 49 PhD students, 24 part-time and 25 full-time, and 44 PhD students have graduated since 2008. A new formal PhD programme has been launched and is organized under the theme of Networks, Institutions and Innovation. • The Unit has generated a total research grant income of £4,641,852 over the REF cycle. • Connections have been strengthened with research end-users, increasing the external impact of our research. • Engagement in international research networks has strengthened considerably since 2008. <p>b. Research strategy</p> <p>In 2008, our RAE submission set out a series of strategic objectives for the Unit. By and large, these objectives have been realized. Our infrastructure has improved immensely with the completion of a £12 million new facility. Our policies and programmes for staff development have become more comprehensive and sophisticated. We believe that our staff have improved their research profiles, engaging in more high profile international research networks, producing better quality publications, and seeking more research funding. We have expanded our portfolio of specialist Masters degrees. Our number of PhD students has not expanded to the extent predicted, but we have made extensive changes to the programme, which should lead to significant growth in forthcoming years.</p> <p>During the REF period, much of the research in the Unit has continued to be organized into four major research clusters: (1) Management and Organization; (2) Financial Institutions and Markets; (3) Economic Analysis and Behaviour; (4) and Governance, Performance Measurement and Accounting in Not-for-Profit Organizations.</p> <p>The only significant new development has been the addition of another research cluster around the theme of Land and Environmental Economics, reflecting closer links between some of our staff and those attached with the Gibson Institute, a stand-alone research centre outside the Unit.</p> <p>Four strategic priorities have guided the research activities in the Unit: (1) consolidate and deepen further the quality of research outputs by providing more support and guidance to our staff, particularly early career researchers; (2) increase the impact of our research by fostering closer relationships with end users; (3) strengthen our involvement in international research networks; (4) develop more focused themes to our research to enable interdisciplinary, cross-cluster research. Important advances have been made on all four priorities.</p> <p>In forthcoming years, we have three strategic aims. One is to develop interdisciplinary teams of researchers to carry out innovative, empirically-based research on business and economic performance in Ireland. The <i>Centre for Business and Economic Performance in Ireland</i> has been recently set up and the intention is to build a bridge between theory and policy by helping leaders</p>

in business, government, education and other sectors of society better understand the dominant business and economic dynamics of modern Ireland. We view this activity as a priority as we feel there is no dedicated centre for the delivery of high-grade, reliable commentary on business and economic affairs in Ireland. We hope that our research endeavours will help create practical new approaches for strengthening public policies, business strategies, and educational programmes.

The second aim is to deepen interdisciplinary research in the Unit that straddles established academic disciplines and categories. The first steps in this endeavour have been made by creating and supporting the *Centre for Economic History* (www.quceh.co.uk) and the *Transdisciplinary Research Centre for Institutions and Political Economy* and by making “*Networks, Institutions & Innovation*” the organising theme of our interdisciplinary work. At this stage, the *Centre for Economic History* is the most active of our research centres and we have ambitious plans in this area. It is our aim to develop this centre over the next five years as one of the leading centre for historical inquiry on economic and business matters in the UK, if not Europe. With the establishment of the *Transdisciplinary Research Centre for Institutions and Political Economy*, interesting new dialogues have opened up between staff in accountancy and economics and in management and economics.

Our third aim is to develop and properly implement a portfolio of support activities that allows our sizeable group of early career researchers to reach their full potential. Largely as a result of a significant expansion, the Unit has now a big group of early career researchers. We have already introduced a series of initiatives – for example, an elaborate mentoring system and a young researcher’s fund amongst other things – to help support the development of these researchers. But we want to do even more, particularly in three areas. First, where appropriate to design strategies to facilitate the active, sustainable engagement of individual early career researchers in international research networks. Second, to encourage even more joint research activity between Professors and early career researchers. Third, to establish a formal in-house peer review system where early career researchers can submit, in full confidence, any working papers to receive detailed comments and feedback from senior academics.

c. People, including:

i. Staffing strategy and staff development

The Unit diligently implements the University’s mentoring and probation scheme for all early career staff. Every early career staff member is assigned a mentor, invariably a senior academic, to receive on-going support and guidance on teaching and research matters. Normally, a mentor meets with an early career academic at least once every month. In addition, a probation committee, comprising of three senior academics, meets once a year to review progress of early career researchers and to set targets for research and publication, conference attendance, research income generation and career management.

For the first three years of their appointment, the Unit provides newly appointed staff, including early career researchers, with a £4,000 ‘start up’ package to support their research activities, such as conference attendance, international networking, data set and other research material acquisition, and project pump priming. Additionally, a promising young researcher fund supports research visits to other high grade academic institutions (up to £5,000 per application). Thus, for example, Dimico spent two months at Brown University in the USA working on development economics with Prof David Weil, Yu spent the same amount of time at the Centre for Analysis of Investment Risk at Manchester Business Unit and Murphy had a similar stay at the University of São Paulo, Brazil.

An individual research budget programme is in also in place. This programme makes available approximately £1,500 to every staff member so that they can attend national and international conferences or start preliminary research/networking on a planned grant proposal.

Furthermore, the Unit operates a successful sabbatical scheme. In line with University policy, every staff member is offered the opportunity to take one semester of sabbatical leave after six semesters of service, while year-long sabbaticals are granted after twelve semesters of service.

Staff are encouraged to use sabbatical leave to strengthen international collaborations and are expected to identify in advance research outputs that will emanate from study leave. Since 2008, 15 members of staff have been granted sabbatical leave, involving visits to Australia, New Zealand, USA, Canada, Turkey, the Netherlands, France, Denmark, and UK. The sabbatical leave policy has enhanced the career development of young researchers such as McAdam, Cole and Holt, all of whom received sabbaticals during the REF cycle. McAdam and Cole, who have been promoted to senior lectureships, are now publishing consistently in international journals and have forged international research collaborations (McAdam with researchers from Babson College, Boston USA and McCole with researchers from Waikato University). Holt has been successful in securing an ESRC grant to pursue her research on sustainability and development.

In terms of equality and diversity, women make up approximately 35 per cent of our submitted staff, which is more or the less the same as in RAE 2008 (36 per cent). However, the international profile of our submitted staff has changed significantly between the two assessment exercises: whereas 32 per cent of our submitted staff were from outside the UK and Ireland in 2008, the figure in this submission is 52 per cent. As a result, our staff profile is more cosmopolitan in character. In terms of internal promotions, there have been 3 promotions to professorships, one of these is female and 3 promotions to senior lectureships, 2 of these are female.

ii. Research students

The Unit continues to operate a strong doctoral programme. PhD students enjoy state-of-the-art research accommodation and facilities in the new management Unit building. PhD students are expected to complete a minimum of 10 days structured training per academic year for a total of 30 days training for the duration of their PhD studies. In addition, approximately 4-6 methodology workshops are held each year for PhD students. Student progress is monitored through a three-month review and a formal differentiation process at the end of the first nine months of research. At differentiation, students are required to produce a substantive progress report which is presented to an academic panel consisting of the person's supervisor plus two other senior academics and chaired by the Director of Postgraduate Studies. Progression to PhD registration is determined by this process.

The Unit offers support for fieldwork costs, conference travel and attendance (where not covered by studentship provider). PhD students are also provided opportunities for tutorial teaching. A thriving PhD society exists at the School and its activities include an annual research presentation day as well as monthly informal gatherings where a student presents a paper on their research methodology, which is then discussed by their peers.

At present the Unit has 49 PhD students, including both full-time and part-time students. Since 2008, 44 students, 21 of whom were women, have successfully defended their theses, with some receiving awards. For example, Campbell was the winner of the 2009 Economic History Society New Researcher Prize and his PhD was short-listed for European Business History Association dissertation prize. A number of our PhD students have secured appointments in the Unit. Boeri, Coyle, Campbell, French, Graham, Savage, Quinn, Walker and Ye who graduated with a PhD from QUB during the REF cycle have been appointed as lecturers. Others have secured employment elsewhere. Atkins is lecturing in Nova Southeastern University in Fort Lauderdale, Barkemeyer is a lecturer at Leeds University, Carey is a senior lecturer at Cass Business School, City University, Gallagher is a lecturer at Edinburgh University, O'Hare is lecturing at Monash University in Australia.

Of the 6 candidates who successfully received PhDs in the broad area of land and environmental economics, 5 have moved on to postdoctoral research appointments, including an ESRC Career Development Fellowship in the Institute of Medical Research at the University of Cambridge and a 5 year research fellowship in the Department of Economics in Trinity College Dublin

In 2013, the Unit introduced even greater formality and rigor into its postgraduate research studies by launching a 4-year Integrated PhD programme centred around the Unit's main research themes, *Networks, Institutions & Innovation*. Formally, this programme consists of a one-year

MRes programme followed by a three-year PGR stage. The purpose of developing a 4-year integrated programme, which is particularly oriented towards international PGR students, is to furnish Doctoral candidates with advanced competence levels in quantitative and/or qualitative research methodology and techniques.

d. Income, infrastructure and facilities

During the summer of 2011, the Unit relocated to Riddel Hall, a listed building, set in 11 acres of beautiful parkland adjacent to the main University campus. The site comprises a new purpose-built Management Unit and Postgraduate and Executive Education Centre with conference facilities. This move has not only delivered a new physical identity for the Unit, but also provides a focus to expand even further the reach and significance of its research and learning activities.

A new Leadership Institute has been set up to deliver a battery of executive education and the Unit is working closely with it to deliver master classes, contribute to short courses and design diploma programmes – the university was named Times Higher Education Entrepreneurial University of the Year in 2009 largely due to efforts of staff in the Unit. The Unit values and will strengthen this relationship as it provides an opportunity to disseminate research to non-academic audiences.

The Unit encourages scholarly collaboration and research development by providing dedicated budgets to assist the organization of research seminars, the search for funding opportunities and the nurturing of research networks external to the Unit. The School allocates £5,000 per annum for the organization of an international workshop on one of the Unit's main research areas. In 2013, for example, the workshop was organized on the theme of workplace conflict management innovations and involved leading scholars in the area, including David Lewin, UCLA, Alex Colvin, Cornell University, and Ariel Agvar, University of Illinois.

The Unit has been successful in securing income totalling £4,641,852, of which £1,621,988 came from Research Councils or the British Academy. Within the Management and Organization cluster, Teague was co-investigator on the £205,000 ESRC-funded project, "Ireland Bilateral: assessing the impact of employee information and consultation regulations in cross-border enterprises on the island of Ireland", (2008-2011). Holt received an ESRC grant of £278,000 to study environmental and social enterprises in southern and eastern Africa. Beck has secured a number research grants from a diverse range of sources, including the ESRC, the Medical Research Council, the NHS and the Research Advisory Council Canada.

From the Finance cluster, Campbell and Turner got a £78,000 grant from the Leverhulme Trust while French received a £12,000 grant from the Institute of Actuaries. The land and environmental economics cluster has secured grant money from both charities (e.g. the Gibson Trust) and institutional granting bodies (e.g. NERC, ESRC, MRC, EU-Framework 7 and the RCUK). The total value of grant income for this group of staff has exceeded £1.5 million pounds in the current REF period, much from RCUK sources. In addition, one member of staff (Alberini) is a named researcher on two USA-NSF grants.

The Governance and Performance cluster has obtained several grants and research awards: an award of £10,029 awarded to Hyndman and Connolly by the Irish Accountancy Educational Trust for research looking at the implementation of accruals accounting in the public sectors of the UK and Ireland; an award of £14,851 to Hyndman and Connolly (with A. Dhanani) by the Certified Accountants Educational Trust researching accountability mechanisms and charity stakeholders; an award of £15,031 to Connolly (with A. Wall) by the Certified Accountants Educational Trust exploring the impact of IFRSs on public policy.

e. Collaboration or contribution to the discipline or research base

The shared research themes that have advanced since 2008 are as follows:

Management and Organization

Members of group: Ambos, Beck, Cullinane, Hazlett, Hennart, Hewitt-Dundas, Hippler, Holt Kenny, McAdam, McCole, McDonnell, Palmer, Rodrigues, Teague, Verwaal and Warner, plus the following 9 early career researchers Bogdanova, Downey, Graham, Hong, Kelly, Millar,

Murphy, Puthusserry, and Valjic.

This cluster, the biggest in the Unit, continues to conduct high grade research that has gained external recognition. At the Academy of Management 2009, Rodrigues received the George R. Terry Book award for her book *Corporate Co-Evolution: A Political Perspective*, which she co-authored with Professor John Child. The award is granted annually to the book judged to have made the most outstanding contribution to the advancement of management knowledge. Hennart is a Fellow of the Academy of International Business. Since 2010, Beck has been a Lead Reviewer for the National Institute for Health Research, Service and Delivery Organisation. Hewitt-Dundas in 2008 was a NESTA Innovation Research Fellow In 2011, Teague was elected to a Fellowship of the Irish Academy of Management (the highest award the Academy can confer on a member). Ambos is on the Board of the European International Business Academy.

The research conducted by Management and Organization cluster falls under four broad themes: entrepreneurship and innovation; marketing and international business; organizational dynamics and people management. High quality research has been published across all themes. Each theme has also attracted research funding from a wide range of sources.

(1) Entrepreneurship and Innovation (Hewitt-Dundas, McAdam, Millar and Hong)

Members of this group continue to make significant contributions to research on entrepreneurship and innovation and the role of these in economic development. Research focuses on a number of interrelated topics, including academic entrepreneurship, knowledge transfer activity of universities in the UK and Ireland, the additionality of public-funded R&D centres in peripheral regions, the success of business incubators. There is a strong practical application to this work, with research feeding into public policy deliberations in both parts of Ireland and the UK. Hewitt Dundas is the Chair of InterTrade Ireland's All-island Innovation Programme, Community of Researchers, which organizes conferences that exposes executives of leading companies in Ireland, north and south, to latest research and thinking on innovation and entrepreneurship. Millar's work on absorptive capacity dynamics of University technological transfers is feeding into policy deliberations of Invest NI as is her work on university incubation mechanisms in the region.

Members of the group actively collaborate with colleagues in other parts of UK and further afield. Hewitt-Dundas has a longstanding and productive relationship with Roper at Warwick University; and McAdam has strong links with Marlow, De Montfort University. McAdam is on the Editorial Board of the International Journal of Small Business. All members are active in international networks. Hewitt-Dundas is a member of the European SME Expert Panel (EU), while Adam was a panelist at the 'We Own Summit' sponsored by the Kaufman Foundation in 2011. Working on the impact of social and political ties between family-controlled business groups on economic activities in emerging economies, Hong collaborates with with Seung-Hyun Lee, Mike Peng (both at the University of Texas at Dallas), and Jordan Siegel (Harvard Business School.)

Hewitt-Dundas received the Best Paper Award, in the Networks and Innovation Track, (64 papers submitted to track) at the 2010 Institute for Small Business and Enterprise Annual Conference. In 2012, she was also awarded Best Paper in the Entrepreneurship and Innovation track and Best Overall Conference Paper at the Irish Academy of Management Annual Conference. The paper entitled "Knowledge stocks, knowledge flows and innovation: Evidence from matched patents and innovation panel data" was co-authored with Professor Stephen Roper, Warwick Business Unit.

(2) Marketing and International Business (Ambos, Downey, Hennart, Hong, McCole, Palmer, Puthusserry, Simmons and Verwaal)

Various strands exist to the research done by this group. The work of Hennart, Ambros and Hong focuses on international business. Whereas Hennart researches the determinants of the mode of foreign market entry, such as contracts and equity joint ventures and applies transaction cost

theory to the study of the multinational enterprise, Ambos is concerned more with global strategy, the functions of regional headquarters, and knowledge management and innovation within multinational firms. Hong's research examines the organizational strategies employed by internationalizing firms to learn about the institutional environments of host countries.

Research done by other members of the cluster is concentrated in marketing. McCole is interested in the privacy, security and trust aspects of e-marketing and purchasing while Downey's work relates to poverty and social justice in the global marketplace. A strong overlap exists between the work of Palmer and Simmons. Both are interested in the extent to which institutional conditions influence firms to depart from established marketing strategies in an endeavour to win new markets (i.e. the extent to which they are prepared to be non-isomorphic). They are also interested in the interface between strategic marketing behaviour and the emergence of new digital technologies. Verwaal's work straddles both marketing and international business. His work addresses matters relating to the drivers of sales fit, the relationship between institutional fit and corporate strategy and the dynamics of outsourcing. He received a Research Excellence award from the American Marketing Association in 2012 for his paper in the *Journal of the Academy of Marketing Science*.

Members of the group have extensive external research ties. Ambos and Hennart are members of the editorial boards of the *Strategic Management Journal*, *Management International Review*, *Journal of International Management*. Ambos is also on the editorial board of the *Global Strategy Journal*. He is also a scientific advisor to the National Research Foundation of the United Arab Emirates and is an officer of the Global Strategy Interest Group at the Strategic Management Society. In 2009, Hennart acted as Faculty Member of the Doctoral Consortium, Academy of Management, International Management and to the Paper Development Workshop, *Journal of International Business Studies*. He was also Track Chair at the Academy of Management, International Management Division 2008 and 2009.

Verwaal has worked as an advisor to the European Commission on international business and he participated in the Spanish Government's National Plan of Scientific Research, Development and Technological Innovation 2010-2014 by completing a study on Analyzing Strategic and Organizational Flexibility from a Co-evolutionary Perspective. Downey engages in a number of international networks on Transformative Consumer Research and Consumer Culture Theory. She received a Kellogs grant to study well-being and the disabled community. McCole is involved in an international network on 'new marketing analytics' which includes colleagues from the Universities of Aziona and Western Ontario, City University of Hong Kong and Hong Kong Polytechnic University.

Palmer delivered the plenary lecture on market driving behaviour within the value chain at a one day conference at the University of Valencia, Spain in May, 2013. Simmons works closely with academics at ESC Rennes Business School in Brittany on a number of projects relating to digital marketing and its influence on marketing strategy. This research network is funded by a number of leading French firms, including Alcatel-Lucent, Orange, Telecom Bretagne, Thompson, Grass Valley, TDF.

(3) Organizational Dynamics (Beck, Bogdanova, Graham, Hazlett, Holt, Kenny, Murphy, Rodrigues, Valjic and Warner)

This research group conducts research into different aspects of how organizations behave. Beck is investigating how accountability obligations are addressed by organizations in PFI arrangements. Hazlett is examining knowledge management systems in small firms as well as performance management in local government. A strong focus of her research is assessing the effectiveness of quality management instruments such as Six Sigma. Holt explores the difficulty of establishing sustainable development as a coherent model for organizational action and she has been awarded several research grants on the topic, including one from the ESRC. Murphy is doing pioneering work on how the new police force in N. Ireland, the PSNI, has been successfully transformed,

organizationally, from within. She is now commencing work with Brazilian colleagues on police reform in São Paulo. Kenny is currently investigating whistleblowing in banking organizations, supported by a number of grants, including from the British Academy/ Leverhulme Foundation. Her work on the topic feeds directly into a number of practitioner and policy organizations, including Transparency International (Ireland), Public Concern at Work (UK) and Whistleblowers UK. Graham and Valjic are engaged in operations and supply chain management research. Whereas Graham is examining sustainable supply chain strategies in the food industry, Valjic is working on supply chain vulnerability and disturbance management in the retailing and fresh food sectors. Bogdanova is doing comparative work in Europe on the role of third sectors in business systems. Warner's research focuses on theoretical aspect of human cognition and social epistemology.

Group members play an active role in external academic networks. Rodrigues is a member of the Board of *Organizational Studies*. Beck is Editor in Chief of The Open Public Health Journal (Bentham Science). In addition, he sits on the editorial boards of *International Journal of Public Sector Management* and *Business History*. Kenny is a Research Fellow at the Judge School of Business as well as a Network Fellow at Harvard University's J.E. Safra Centre for Ethics. She is also an editorial board member of *Organization*. Warner is on the editorial board for the *Journal of the American Society for Information Science and Technology* and Holt on the editorial board of *Corporate Social Responsibility and Environmental Management*.

(4) People Management (conducted by Beck, Cullinane, McDonnell, Teague and the early career researcher Kelly)

Research in the area of people management has focused on five topics: (1) workplace conflict management in organizations and by public agencies; (2) the impact of EU regulations on information and consultation on organizational employee voice in Ireland, north and south; (3) the impact of the Great Recession on HR policies and practices in Ireland and Europe; (4) multinationals and international HRM strategies; (5) the employment-at-will regime in the USA and (6) work and employment in knowledge intensive firms

Research by the group has been supported by the ESRC and the Irish Government: Cullinane continues to participate in the ERSC/IRCHSS funded project on Employee Information and Consultation Directive in Ireland with Dr Jimmy Donaghey, Warwick University Adrian Wilkinson, Griffith University Australia and Dr Tony Dundon, National University of Ireland, Galway, while Teague's research, in conjunction with Prof Bill Roche at UCD, who is a Honorary Professor in the Unit, on conflict management and HR practices in the recession has been funded by the Irish Government.

Teague was awarded an ESRC seminar series on innovative conflict management with the Universities of Central Lancashire, Swansea and Westminster. International collaborators on this research include, Bill Roche UCD, Alex Colvin, Cornell University, (who are with Teague editors of the forthcoming Oxford Handbook on Conflict Management in Organizations). He also co-edited a special edition of the *International Journal of Human Resource Management* on innovative workplace conflict management strategies in different countries. Teague was also co-leader of a major research project funded by the Irish Government, Labour Relations Commission and formally supported by the CIPD, the Irish Business and Employers' Confederation and the Irish Congress of Trade Unions on the people management strategies being pursued by firms during the current recession. He has also been a plenary speaker at several international conferences including the Beyond Austerity: Building European Solidarity organized by the Foundation for European Progressive Studies in Brussels in Sept 2013.

McDonnell's research focuses on different aspects of international HRM strategies pursued by multinationals, including global talent management and the organizational design of the HR function in MNCs. Currently he is the lead investigator on an Australian Research Council (ARC) grant testing the integration and differentiation of national employment systems. He is also involved in an international network that is researching the challenges faced by organisations in undertaking

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effective talent management in Poland. He has been awarded numerous best paper prizes at conferences: Best Paper at the 26th Association of Industrial Relations Academics of Australia and New Zealand (AIRAANZ) Conference, Freemantle 2013; Best Paper Stream (Strategic Management) Award at the Irish Academy of Management Conference 2011; Best Paper Stream Award (Organisations, teams, and networking stream) at the Pacific and Employment Relations Association (PERA) Conference 2010.

Kelly is involved in a network, which includes academics from LSE, and Kent, Dublin City University, examining aspects of work and HRM systems in knowledge-intensive firms, including multinationals. Perhaps the team is best known for their work that shows how the occupational roles of men and women contrast sharply inside knowledge intensive firms.

Members of the group are connected with various external networks, academic and non-academic. Cullinane is the National Expert for Ireland on the EU Commission Information and Consultation Fitness Check Study. Teague is a member of the advisory panel for the EU body, the European Foundation as well as a member of the advisory team for the ILO's project the International Comparative Study on Labour Dispute Resolution Services. McDonald is an active member of the INTREPID network, probably the most productive and well organized global group of scholars studying international HRM. McDonnell sits on the editorial boards of the *Human Resource Management Journal* and the *International Journal of Human Resource Management*.

Financial Institutions and Markets

Members of group: Li, McKillop, Turner, and Wu plus eight early career researchers (Campbell, Coyle, French, Quinn, Walker, Yang, and Ye), with research collaborations with Governance and Performance (Hyndman) and Economic Analysis and Behaviour (Brownlow, Colvin).

The three research themes identified in RAE 2001 and 2008 have been further developed under three sub-themes. In addition, a new theme has been developed over the past six years which coincides with changes to the undergraduate and postgraduate provision.

(i) Financial Markets and Institutions over the Long Run (Campbell, Coyle, Turner, Walker and Ye along with Brownlow and Colvin (Economic Analysis and Behaviour))

These researchers adopt an evolutionary and historical approach to the study of financial institutions and markets. The major contributions of the group have been to examine the functioning of unlimited liability (Turner and Ye), develop equity indices for the nineteenth century (Turner and Ye), add to our understanding of investors, corporate governance, and the peculiarities of the Victorian equity market (Campbell, Turner and Ye), critique the 'law and finance' School using financial history (Coyle, Campbell and Turner), study asset pricing behaviour during the Railway Mania (Campbell, Turner and Walker), and explain British banking stability over the long run (Turner). This research has been funded by the ESRC and Leverhulme Trust. During this REF cycle, Turner was awarded an ESRC seminar series grant with Birmingham, Manchester and Oxford universities. Turner was also the Alfred D. Chandler Fellow at Harvard Business School in 2010. International collaborators with this group include Acheson (Stirling University) and Musacchio (Harvard University).

(ii) Not-For-Profit Financial Institutions (McKillop, Quinn, French with Hyndman (Governance and Performance)).

These researchers analyse not-for-profit financial institutions. Their work is interdisciplinary in character as it seeks to combine paradigms from economics, finance and accounting. A recent important contribution of their work has been an examination of how financial cooperatives can better position themselves in a restructured financial environment.

McKillop was appointed by the Irish Government as a member of the Credit Union Advisory

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Committee (2009 –on-going) and was Chair of the Commission on Credit Unions, June 2011–March 2012. . Quinn, a young researcher, has undertaken work for the IMF on the efficiency of financial institutions and was commissioned by the Irish Government (with McKillop) to undertake an efficiency assessment of Irish credit unions. French is a specialist in Randomised Control Trials and with McKillop is funded by Office of the First Minister and Deputy First Minister (Northern Ireland), Centre of Excellence for Public Health (QUB) and AXA Insurance to evaluate approaches to relieving over-indebtedness among credit union members in Ireland.

The work of the group has a strong international dimension, involving collaborative policy orientated research on Credit Union Governance in Canada and the United States, funded by Credit Union Central Canada and the Filene Institute USA. McKillop has also done joint work on Scottish Credit Unions funded by Scottish Government.

(iii) Financial Markets (Li, Wu, Yang).

Theoretically and empirically, this group of researchers emphasizes the importance of the microstructure of financial markets for macroeconomic performance. The major contributions of this group are to: evaluate the impact of liquidity on returns in US stocks (Yang); evaluate long term return reversals in US equities (Li and Wu) and explain trend following in asset markets (Li).

An important impact of the group is its participation in the annual central bank conference on market microstructure, which has taken place under the aegis of the Bank of Canada (2012), Norges Bank (2011), Federal Reserve Bank of New York (2010), Swiss National Bank (2009) and Hong Kong Monetary Authority (2008).

(iv) Pensions, health and mortality modelling (French, Li, and McKillop).

The driver behind this research theme has been a commitment to actuarial research. French has helped developed a dynamic factor model to forecast mortality. McKillop in collaboration with others has developed a novel factor asset pricing model related to pension deficit underfunding while French with others has applied concepts from chaos theory to explain non-linear factor models. Li has developed a new theoretical model to explain mortality at younger ages. International collaborators with this group include Canning (Harvard School of Public Health) and Biffis (Imperial College, London).

Governance, Performance Measurement and Accounting in Not-for-Profit Organisations.

(Members: Connolly, Dillard, Hyndman, Liguori)

The focus of this group is on governance, reporting, control and change in the public sector and in the wider not-for-profit sector, particularly in the areas of charities and social enterprise organisations. The group has been strengthened by the appointment of Liguori (2009). Particular themes of this group have been: public sector accounting and accounting change (Connolly, Hyndman and Liguori); charity accounting, reporting, governance and performance measurement (Connolly and Hyndman); PFI/PPP (Connolly); and social enterprise accountability (Connolly).

Moreover, the cluster has strengthened its international profile considerably. Invitations and visits to overseas universities, have increased: for example, Hyndman (Telfer School of Management, University of Ottawa, Canada, September-December 2010 and November 2013, and Sprott School of Business, Carleton University, Canada, December 2010); and Liguori (Telfer School of Management, University of Ottawa, Canada, October 2010 and the School of Business, University of Alberta, Edmonton, Canada, February-July 2009). Dillard was an Erasmus Mundos Scholar at the Institut de Ciència i Tecnologia Ambientals, Universitat Autònoma de Barcelona May-July 2010.

Representation on the editorial boards of quality international journals has also increased: Hyndman sits on the Boards of *Financial Accountability & Management* (appointed Associate Editor 2013), *Accounting, Auditing & Accountability Journal* and *Accounting and Business Research*. Dillard is an Associate Editor of *Critical Perspectives on Accounting* as well as *Accounting Forum*.

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He is the Regional Editor of *Sustainability Accounting, Management and Policy Journal*. He is also an editorial board member of the following journals: *Accounting, Auditing and Accountability Journal*; *Accounting and the Public Interest*; *Issues in Accounting Education*; and *Accounting and Business Society*.

Staff members in this research cluster have delivered a series of plenary addresses to international conferences. Connolly and Hyndman spoke at both the 'Telling your story: shaping the future of charity reporting' conference (under the auspices of the Charity Commission and the Office of the Scottish Charity Regulator), at Church House Conference Centre, Westminster, London, December 2009 and the 'Shaping the future of charity reporting in the UK and Ireland' conference (under the auspices of the Department of Community, Rural and Gaeltacht Affairs, in partnership with ICTR), Dublin Castle, Dublin, January 2010. Hyndman was also plenary speaker at the 'Charity accounting, reporting and regulation: reflections and imminent changes' conference in Belfast in October 2013, organised by the Charity Commission for Northern Ireland (CCNI), the Charity Commission (England & Wales) and the Unit, to roll out (for discussion) the proposed new reporting and regulatory frameworks for UK charities

In addition, staff in the cluster have also been more involved in editing special editions of journals: Hyndman joint guest editor (with R. Jones) of a themed issue of *Public Money & Management* on 'Charities: accounting, accountability and governance' in May 2011, and Liguori joint guest editor (with I. Steccolini) of a special issue of *Critical Perspectives on Accounting* on the theme of 'What's accounting got to do with it? Accounting, innovation and public sector change' (2013).

Liguori received best paper awards at: the EIASM conference on Accounting, Auditing and Management in Public Sector Reforms, Copenhagen, September 2010 (paper – Radical change, accounting and public sector reforms: a comparison of Italian and Canadian Municipalities); and at the annual New Public Sector Seminar, University of Edinburgh, November 2008 jointly with Cristofoli D., Ditillo A., Sicilia M., Steccolini I (paper – 'Do environmental and task characteristics matter? Unveiling the relevance of relational factors in the control of local public services'). In 2008, Dillard (with Brad Truttle) won the McGraw-Hill Best Paper Award for the paper "Beyond Competition: Institutional Isomorphism in US Accounting Research." that appeared in *Accounting Horizons*, a journal of the American Accounting Association. He also won the best paper award for "Veblen's Placebo: A Historical Perspective on Administrative Evil" at the 2011 Academy of Accounting Historians, which subsequently appeared in the *Accounting Historians Journal*.

Economic Behaviour and Analysis

Brownlow, Chakrabarti, Galindev, Gilles, Hadri, McVicar, Prendergast, McVicar, Ziegelmeier and five early career researchers Colvin, Dimico, Kumar, Popov, and Shin.

This cluster, now led by Hadri and Gilles, two arrivals over the REF period, has consolidated research in a number of key areas including, different aspects of game theory, theoretical and applied econometrics and financial econometrics, macroeconomics, development economics and history of economic thought, with outputs in leading economics and field journals. The vibrant mix of highly promising early career researchers and more established researchers has resulted in a widening of research networks and a rapidly expanding portfolio of research outputs.

In economic theory, there is a strong group of researchers, headed by Gilles and comprising of Chakrabarti, Ziegelmeier and recently recruited early career researcher Kumar, that work on network formation, theory of economic institutions, public goods economies, cheap talk and the role of the price mechanism in the aggregation of dispersed private information. Ziegelmeier has worked on behavioural models that explain observed behaviour in economic experiments. He is also an associate editor at the *European Economic Review*. Popov, another early career researcher, works in applied microeconomic theory, with a particular focus on microeconomic interactions between agents with limited information.

Other contributions concern economic history and regional economics. Brownlow has published on

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the recent history of the Irish economy, north and south. He is also editor of the journal *Irish Economic and Social History*. Two early career researchers, Colvin and Dimoco, are producing very promising work on the economic consequences of civil wars and the effect of the past on institutions and economic growth and development. Dimoco has analysed the long-term economic effects of geographical conditions, slavery and civil war. Colvin's thesis, "Religion, competition and liability: Dutch cooperative banking in crisis, 1919-1927", won the European Business History Association's bi-annual Dissertation Prize in 2012.

Shin and Galindev investigate topical questions in macroeconomics. Shin has published on the macroeconomic implications of human capital development, while Ragchaasuren has published in the area of new growth theory. McVicar has worked on the empirical and applied economic approaches to the functioning of job markets, and particular topics in education and health. The contributions of Prendergast are in the areas of development economics and the history of economic thought, particularly on the economics of early enlightenment thinkers.

In econometrics, Hadri's research on panel data stationarity tests is highly cited and used across the world to test important economic and financial theories, including testing the celebrated Prebisch-Singer hypothesis concerning the secular decline of the terms of trade for primary commodity producers.

Land and Environmental Economics:

Members of the group include: Hutchinson, Scarpa, Alberini, Longo, and Boeri.

Over the course of the REF period, staff at the Unit of Management have become increasingly aligned with a group of land and environmental economists that are formally housed in what is known as the Gibson Institute in the Unit of Biological Sciences. Joint research work is carried out by the two groups under the umbrella of the ESRC Centre of Excellence in Public Health NI and the University-wide Institute for a Sustainable World. The two groups also share some areas of common teaching as well as PhD supervision.

The land and environmental economists specialize in methodological and empirical issues in the field of non-market valuation and experimental economics for the ultimate purpose of informing public policy and corporate strategy. The group does work on the development and dissemination of the technique of efficient Bayesian design for stated choice in the field of non-market valuation, as well as the investigation of incentive compatibility issues in the context of referendum contingent valuation and more recently also in choice experiments using economic experiments.

This research has led to international research networks being forged. Hutchinson is a contributing author to the forthcoming 2014 IPCC Report on Impacts of Climate Change. He also holds adjunct research appointments in other universities overseas, such as in the USA, Australia and New Zealand. Scarpa works closely with both the Institute of Transport and Logistics at the University of Sydney Business Unit and the Centre for the Study of Choice at the Business Unit of the University of Technology Sydney. A further impact of the group's work on efficient Bayesian design of choice surveys has been collaborations with a wide client group in the Education, Health, and Environment Sectors as well as corporate clients such as Boeing, Motorola, KFC and PepsiCo. Members of the group enjoy a high profile within the economics profession. For example, the Thomson Reuters highly cited list 2001-2010 in economics and business ranked Scarpa 13th on the list (see http://ipscience.thomsonreuters.com/hcr/economics_and_business.xlsx).

The group has also contributed significantly to editorial activities in various peer-reviewed journals including the associate editorship and membership of the editorial boards of the *Journal of Environmental Economics and Policy (JEEP)*, and *Environmental and Resource Economics (EARE)*, plus membership of the editorial committees of *The European Review of Agricultural Economics (ERAE)* and the *Review of Environmental Economics and Policy (REEP)*.