

CHALLENGES FOR RESEARCH IN THE FIELD OF AGRICULTURAL ECONOMICS IN THE UK

Kenneth J. Thomson¹

Professor Emeritus, University of Aberdeen, and Theme Leader James Hutton Institute,
Aberdeen, United Kingdom

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A b s t r a c t. Research challenges for agricultural economics in the United Kingdom (UK) can be classified under "issues", "methods" and "resources". Under "issues", those of environmental land management (e.g. for landscape, biodiversity, outdoor access) have received most attention, along with questions of food security, and of animal health and welfare. In contrast, farm management has been relatively neglected, in line with the traditional (and government-shared) inclination towards economic liberalism. In terms of "methods", new concepts, such as multifunctionality, payments for ecosystem services, and environmental valuation techniques, have predominated, with relatively little effort to model the EU Common Agricultural Policy. "Resource" issues have primarily arisen from the rather radical restructuring (including closure of many UK agricultural faculties) and stringent procedures (e.g. research assessment exercises) within the current and increasingly competitive UK university system. In this context, new staff, as well as ideas and funding, have often been sought, and gained, from elsewhere in the European Union.

INTRODUCTION

- The "challenges" in the title of this paper can be characterised in several ways, including:
- issues: what scientific, economic or socio-political questions should they address?
 - methods: how should agricultural economists analyse these issues?
 - resources: how should the profession utilise its scarce time, expertise, data, etc.?

Moreover, should "challenges" be interpreted as those tasks which the profession cannot easily undertake, or should it focus on those which are important but – so far at least – are being addressed successfully? How do "challenges" relate to "priorities", as seen by agricultural economists themselves, or by stakeholders?²

¹ Thanks are due to Prof. Dr Arie Oskam of Wageningen Agricultural University and to Dr Holger Bergmann of Göttingen University for stimulating remarks on earlier drafts of this paper. However, neither colleague bears any responsibility for its contents.

² Ahearn *et al.* [1998] describe a priority-setting process undertaken by the U.S. Council for Food, Agricultural and Resource Economics (C-FARE) for agricultural economics. Though specific to that time and country, the exercise is of wider interest.

Taking advantage of these indeterminacies, this paper seeks to explore all of these avenues, though it cannot hope to do so thoroughly. It tries to cover the last decade or two³, with an occasional focus on current issues, such as recent proposals for CAP reform.

Some other terms on the subject matter should first be discussed. “Research” is taken here to mean “*original investigation undertaken in order to gain knowledge and understanding*” It includes work of direct relevance to the needs of commerce, industry, and to the public and voluntary sectors, scholarship, the invention and generation of ideas, images, ...” etc. [HEFCE *et al.* 2008, Overview para. 19]. It excludes, for example, the development of teaching materials that do not embody original research, and the bulk of the work undertaken by economic and farming consultants (a large, influential and successful subsection of the profession in the UK), and by officials, agricultural statisticians, etc.

In recent years – indeed, decades – the term “Agricultural Economics” has undergone intensive discussion in the UK⁴. This debate has been stimulated by the unpopularity of modern commercial farming in Britain⁵, and has occurred for a number of reasons, which include environmental degradation, food scares, and budget cost. The number of British university research centres with more than one or two agricultural economists on their staff has fallen from perhaps twenty in the 1980s to around five (Reading west of London, Newcastle in northern England, Harper Adams near the Welsh Borders, the Scottish Agricultural College mainly in Edinburgh, and Queens University in Belfast). In the light of falling student demand, other well-known centres, including the Universities of London (Wye College), Manchester, Exeter, Aberystwyth, Edinburgh and Aberdeen, have all closed their Agriculture faculties or Agricultural Economics departments, and/or they have moved remaining agricultural economics staff into schools of business, environmental sciences, etc. Individual or small groups of agricultural economists remain at other centres, such as the Universities of East Anglia, Exeter, Gloucestershire, London (Imperial College), Kent, Nottingham, and Sussex, the Royal Agricultural College at Cirencester, and the James Hutton (previously Macaulay) Institute in Aberdeen. Many of these staff are in larger and often multi-disciplinary “business”, “rural” or “environmental” units.

This is not to say that Agricultural Economics is disappearing as a discipline and profession in the UK; it still runs a successful Society⁶ and journal (the *Journal of Agricultural Economics*); it is largely responsible for the *EuroChoices* periodical; it supplies many leading international agricultural economists, e.g. at OECD and FAO; and many students and researchers still come to the UK from around the world for training and collaborative work. It can probably claim to have initiated and stimulated “new thinking” in many policy and academic circles outside Britain, ranging from the European Commission and Parliament to the European and International Associations of Agricultural Economists. As an indication of UK professional activity (perhaps biased towards those of its more senior members), Table 1 lists the Presidential Addresses delivered to the Society over the last 20 years.

³ A history of agricultural economics in Britain over most of the last century is available from Colman and Lowe [1990]. See also Giles [1987].

⁴ As also in the United States: see the recent change of name from the American Agricultural Economics Association to the Agricultural and Applied (not now “American”!) Economics Association: see www.aaea.com.

⁵ Agriculture accounts for 0.6% of UK Gross Value Added (similar to GDP), and for 1.6% of the national workforce. These figures indicate low incomes from farming even after CAP receipts (not included in GVA) are considered. The agri-food sector as a whole accounted for 6.7% of GVA and 14% of the workforce. Farming occupies about 75% of the total UK land area, roughly 25% each in crops, grass and rough grazing.

⁶ The UK Agricultural Economics Society has nowadays about 350 members, a fall from about 400 around 1990.

Table 1. UK Agricultural Economics Society Presidential Addresses 1991-2011

2011: Semi-Subsistence Farming (Davidova)
2010: EU/US Agricultural Policy (Blandford*)
2009: Bioenergy (Swinbank)
2008: Farm Incomes and Wealth (Hill)
2007: Rural Environment and Governance (Hodge)
2006: Environmental Accounting (Buckwell+)
2005: International Trade and Marketing (Josling*)
2004: Economic Theory and the Social World (Harvey)
2003: Policy Evaluation (Legg*+)
2002: Small-scale Farming in Africa (Belshaw)
2001: Rural Development (Thomson)
1999: Environment (Whitby)
1998: Farm Management (Webster)
1997: Food Marketing (Ritson)
1996: Veterinary Economics (McInerney)
1995: Marketing (Bansback+)
1994: Agri-Environmental Schemes (Colman)
1993: Farm Management (Dancey+)
1992: Self-Sufficiency Policy (Sturgess)
1991: Macroeconomics (Peters)

* Author working outside the UK

+ Author working outside academia at time of delivery

Source: The above papers can be downloaded (given appropriate permissions) via
[http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1477-9552](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1477-9552)].

ISSUE CHALLENGES

No-one can complain that, globally, Agricultural Economics lacks challenges; after a decade or two of relative quiescence while the Green Revolution and its aftermath saved the world from the food shortages and famines predicted by the Club of Rome's *Limits of Growth* [Meadows et al. 1972], recent rises in farm commodity prices have triggered renewed concern with "food security" around the world. Agricultural Economics is widely understood to have contributions to make towards resolving the paradox of adequate food availability existing alongside widespread food poverty and occasional famines, whether at the conceptual level ("What is food poverty?"), at the farm level, especially in developing countries, and at the policy level, e.g. the WTO and the Doha Round. It can also contribute to analysis of the underlying "drivers" of population growth, climate change, consumer demand and technological development. Many of these problems have been analysed in a recent report from the UK government (BIS, 2011) – though "mainstream" UK agricultural economists were not prominent in this project's "lead panel".

The standard UK perspective on these issues is shared (perhaps formed) by most UK economists – open trade in food commodities (and in farmland), encouragement of technological innovation along the food chain, and reliable information for consumers and governments. In addressing these challenges, British agricultural economists can play many roles, but most involve international collaboration and/or multi-disciplinarity – and perhaps patience and optimism, given the persistence and intractability of many of them.

Within Europe, there is again no shortage of stated “challenges” from various authorities, including the European Commission itself. These extend well beyond the Common Agricultural Policy (CAP), to the EU budget, the accession of more Member States, the problems of the euro-zone (to which the UK does not belong), and the Europe 2020 vision of a “smart, sustainable and inclusive economy” [<http://ec.europa.eu/europe2020>]. However, agricultural economists are naturally focussed, as always, on CAP reform, in particular recent proposals from the Commission [2010] and the European Parliament [2010, 2011]. These identify the main “challenges” facing the CAP as “food security”, “environment and climate change” and “territorial balance”, and cover the future of both direct payments to farmers and of the rural development Pillar 2.

The position of the UK, and hence of many of its agricultural economists, in this debate is complex. The UK government in London considers that the Commission’s (and probably the Parliament’s) proposals are lacking in ambition, and it wishes a “*fundamentally different*” CAP, with “*Pillar 2 taking a larger share of limited resources*” [Spelman 2011]. This of course brings in the higher-level issues of the size of the overall EU budget (which the UK wishes to be significantly less), and the UK rebate agreed in 1984. However, the three UK “devolved administrations” – for Scotland, Wales and Northern Ireland, which contain 47% of farmland in Britain, and attract a significant share of CAP funding – are far less radical. They have developed a joint position on CAP reform, stressing “*a fair and proportionate share of the budget, flexibility to respond to specific local needs, and simplification*” [Scottish Government 2011]. Moreover, recent elections have strengthened the voice of these administrations, for example with an independent Scotland now a real possibility in 5 or 10 years’ time.

A further factor is the unusual structure of British farming and food, with a high proportion of large commercial businesses in food production, processing, manufacture and retailing, and the correspondingly low prominence of small-scale enterprises in these sectors – although general UK affluence accounts for a good deal of part-time “hobby farming” (as well as large “landed estates”), specialist foodstuffs (biscuits, whisky, cheeses, even wine) with domestic and export prospects, and niche retailing (farmers’ markets, online purchasing).

Despite these disparate domestic political voices in the EU CAP debate, most UK agricultural economists are probably aligned more with London than with Edinburgh, Cardiff and Belfast. They are therefore faced with analysing a Policy with which they, like their main government, are out of sympathy, and for which little research funding has been forthcoming in recent decades. Moreover, the current CAP in one form or another enjoys strong support in many other EU Member States, so that radical reform of the type advocated in London and by many economists is highly unlikely. The best that can be done in such circumstances seems to be a combination of emphasis on fundamental economics (efficiency, comparative advantage, free markets, etc.) and detailed analysis of Axis 2, on which most UK Pillar 2 funding is focussed. The latter challenges involve the valuation of environmental goods and assets, and questions of institutional economics such as governance. By contrast, issues of “fairness” (of Pillar 1 direct payments) and agricultural modernisation (Axis 1) receive comparatively little attention from UK researchers.

Within the UK, agricultural economists have had – perhaps paradoxically – rather little to say about British agriculture itself. There are political and industry concerns over various matters, such as returns in the farm-to-food chain, and the structure of the farming (and food retailing) sector, especially the alleged lack of “young farmers” or “new entrants”, and the domination of the supermarkets. However, most agricultural economists consider these questions as of little inherent significance, being merely symptoms of an industry under (necessary) adjustment, and of desirable growth in economic efficiency. Farm income levels receive little attention – partly due to their dependence on subsidy at a time when the political atmosphere is generally sceptical of government (e.g. David Cameron’s “Big Society”), and partly due to economic evidence [Hill 1996] that British farm family incomes from all sources are comparable with others, and that their wealth in terms of land is considerably higher than most of the population.

Instead, domestic issues have, as mentioned above, focussed on ways of protecting the famous British “countryside” and landscape against the encroachments of monoculture, farm-sourced pollution, and privatisation (new legislation on public access to land). The variety of UK topography, and its rich cultural history, mean that such work is often carried out via case studies or for specific regional challenges, e.g. for eastern wetlands, Scottish “crofting” (small farm holdings with special land tenure), extensive upland farming of sheep and cattle, peri-urban “green belts”, etc. Other areas of particular British emphasis have been the economics of animal health and welfare (including wild animals such as foxes and badgers as well as farm livestock), agriculture in developing countries (particular “pro-poor” policies), and some risk aversion (though not market risk management).

Some British agricultural economists are working in the area of climate change and carbon budgets related to farming as a result of strong national commitments to greenhouse gas emissions and renewable energy generation. So far, such work has had little impact on field-level activity, perhaps because high UK fuel prices attract greater attention, but there is debate over the efficiency and visual impact of wind farms (energy cropping is not yet significant).

METHOD CHALLENGES

Compared to the “issue challenges” described above, the particular challenges facing British agricultural economists as regards the methods used in their work may be expected to be more similar to those encountered elsewhere⁷. However, the extent to which these “method challenges” are being successfully addressed depends to some extent on the structure and resources of the profession: see next section. Given the stressing of “new methods” in the social sciences and their (usually English language) journals generally, and the influence of the publications-based UK Research Assessment Exercise⁸ on university funding and staff promotion, it might be expected that challenges of this type would be identified and tackled quite energetically within the UK.

In some ways, this expectation seems generally true, at least as regards the “issue challenges” highlighted above. UK agricultural (and rural, environmental) economists have been

⁷ The question why agricultural economists stay with – or in rarer cases turn to – agriculture as the focus of their disciplinary work is not addressed here. Nor are the employment hopes and out-turns of agricultural economics graduates explored.

⁸ Now to be the Research Excellence Framework (REF) 2014; see www.hefce.ac.uk/research/ref.

active in addressing issues such as contingent valuation (Bateman, Hanley), policy/programme evaluation [Hodge, Midmore 2006], and “livelihood strategies” in the UK and in developing countries. There has also been progress in investigating public-private relationships, as in “club goods”, “multifunctionality” and “payments for ecosystem services”.

Modelling challenges have been less successfully addressed, perhaps due to the individualistic and entrepreneurial character of current British academia (see next section). Large-scale and medium-term modelling has been largely left to continental teams, with the notable exception of Irish work (in both the Republic and Northern Ireland) in collaboration with the U.S. FAPRI team at Missouri. For example, UK use of the GTAP framework [Hubbard 1995] has been limited. To a large extent, this neglect of modelling after some early efforts in the 1970s and 1980s probably derives from two causes. First, the reforms of the CAP from a “common” market price support mechanism to a combination of direct payments based on a variety of national historic and “objective” criteria⁹ makes economic modelling much more difficult, both in its numerical complexity and because the behavioural consequences of these payments are unclear. Second, as mentioned above, the UK government – and most of the UK agricultural economics profession – are not very interested in “fine-tuning” Pillar 1 of the CAP (i.e. 80% of its funds), preferring to focus on Pillar 2 (and Axes 2-4 of that Pillar) – which are even more difficult to model! Finally, the food-chain sector itself has become more complicated, with greater differentiation of commodity quality, more and more processed foods, and oligopolistic tendencies in food manufacturing and retailing; all these trends make standard economic market analysis more difficult, and often less general.

RESOURCE CHALLENGES

With such a wealth of challenges as described above (and more could be added), there has been no shortage of problems waiting for British agricultural economists to tackle. However, on top of the problem of choice, there have been (and remain) some challenges closer to home, in terms of available time, skills and knowledge, and the necessity of working within institutional structures and procedures – primarily those in the universities (since there is no UK “Institute of Agricultural Economics”) but also in non-university institutes and organisations.

The nature of British universities is too well-known (and too complicated!) to describe here in detail. It is characterised by a rather high degree of individualism – a “chair” is simply a personal post, not a set of resources in a department of several staff members – and by considerable competition, both personal in terms of promotion and wider recognition, and institutional in terms of universities seeking funding, students and renown amidst an increasingly competitive national and international environment. Lecturers (assistant professors) and senior lecturers (associate professors) are appointed relatively objectively (“outside candidates” are often preferred) by appointments panels from across the university, with confidential external letters of reference. Once in post, research staff have considerable autonomy, but with little guaranteed support for expenses, sabbatical periods, etc.

⁹ The four UK “countries” have adopted four different versions of the Single Farm Subsidy scheme. There are of course many other versions in the other Member States.

In brief, UK universities receive about 75% of their government funding for teaching (an approved number of students) and about 25% for research. With low numbers of students (first degree and postgraduate) for Agriculture (including Agricultural Economics) studies, the financial basis of many – indeed, most – Agriculture and Agricultural Economics departments became very insecure. Responses have included closure and/or amalgamation (see Introduction above), a focus on “pure” research (e.g. genetics) or on flows of non-traditional students (e.g. from China, part-time or commercial). Pursuing all of these strategies is not feasible, so that Agricultural Economists have found themselves in more specialised units, some heavily focussed on research, others seeing research activity as more of an extra for individuals willing and able to secure project funding which can release them from teaching duties.

Government funding for UK university research¹⁰ is based on the RAE/REF system (see above); the latest (post-2008) formula gives weights of 7, 3 and 1 for research judged to be “world-leading”, “internationally excellent” and “internationally recognised” respectively, and zero for work that is only “national” in quality¹¹. This puts great pressure on staff to attain a (relatively small) number of papers over 4-6 years in “leading journals”: books (especially teaching textbooks, and public media such as governmental reports, newspapers, television appearances, and blogs count for much less.

A young research-focussed agricultural economist is therefore faced with having to compete for external funding in the form of projects from the UK Research Councils, the European Commission (the FP7 Programme) and other sources, including government departments, commercial companies and non-governmental organisations (NGOs). The more official sources have increasingly onerous application and performance criteria, ranging from “pre-qualification” barriers (an institution with a poor record may be ineligible for further funding) to the dreaded EU audit. Moreover, many pursue agendas of “quality”, “cost-effectiveness” and “knowledge transfer and exchange” (or “dissemination”) which may or may not mean much but which complicate the beginning and ending of the research project process.

A further complication is the current vogue for “a multidisciplinary approach” in research. In principle, agricultural economists are ideally placed to take a leading role in such approaches, since they have (or should have) a wide awareness if not specialised knowledge in pure and applied economics, other social sciences, the natural sciences relevant to agriculture, law, etc. In practice, things are not that simple. In the present writer’s view, multidisciplinary only works when there is a clear and maintained common understanding of the “real-world” problem to be addressed (and ideally “solved”); without this element of coherence, it is natural for researchers in different disciplines to pursue their own lines of investigation without undue regard for others. However, establishing and maintaining this common “problem” is expensive in time (and money for travel and meetings if a multicentre project is involved) and patience. The project client (i.e. the funding organisation) can play a crucial role here in imposing coherence; but too often it loses interest once the project grant has been awarded, and/or it has a different or changing view of the “problem” over a multi-year period (or as the research develops).

¹⁰ This is channelled from the finance and higher education ministries through „arm’s-length” Councils which adopt more or less objective criteria in allocating funds amongst the 100-plus universities.

¹¹ Research quality of “output” (i.e. publications), “environment” (i.e. structures, strategies, procedures) and “esteem” (external recognition) in 2008 was judged in terms of “originality, significance and rigour”, with “units of assessment” (i.e. departments, not individual staff, or universities as a whole) classed into 5 bands. There has been pressure to put more emphasis next time (i.e. in 2014) on “relevance” or “usefulness”, often of an economic nature.

Because of this, some British agricultural economists tend to pursue their own individual research paths, often in collaboration with trusted colleagues (UK and overseas) who share the same views and interests. Nevertheless, others have acted as valuable members of multidisciplinary teams, and/or have “morphed” into generalists heading up broader institutions, or (as in government) taking on a wide range of topics. A further feature is that, given the drying-up of domestic supplies of graduate agricultural economists, UK universities and research institutes have had to look increasingly abroad for well-qualified researchers. The result has certainly added to the richness and perhaps quality of the remaining UK centres of agricultural economics, but has perhaps discouraged the study of domestic UK problems, especially those involving long-established governmental, commercial and voluntary institutions.

The changing structure of the UK administrations should also be borne in mind here. The term “Agriculture” has virtually disappeared from the official titles of ministries¹² and research funders¹³. Instead, “Environment”, “Food” and “Rural Affairs” are preferred terms, with the remit of the Minister, Secretary, Director-General, etc. now covering a range of topics including climate change, water quality, wildlife, pollution, rural communities, etc. This naturally spreads the interests of “agricultural economists” (internal and external to ministries) more widely – for better or worse. Ironically, the continued existence and importance of the UK-disliked EU’s CAP and its Council of Ministers maintains political if not research focus on UK farming and its policy context.

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¹² It survives (alongside “Rural Development”) in the Northern Ireland Department.

¹³ The Agriculture (later “and Food”) Research Council disappeared about 20 years ago from the UK list of such Councils, which are the main source of government research funds outside the universities themselves. Agricultural economists must now seek “pure” research funds from the Economic and Social Research Council (ESRC, from which the term “Science” was dropped by Mrs Thatcher in the 1980’s) or for multidisciplinary (or multi-Council) projects from the Biotechnology and Biological Sciences Research Council (BBSRC).

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WYZWANIA DLA BADAŃ W DZIEDZINIE EKONOMIKI ROLNICTWA
W WIELKIEJ BRYTANII

Streszczenie

W artykule omówiono trzy grupy wyzwań dla ekonomiki rolnictwa w Wielkiej Brytanii w zakresie obszarów badań, metod i źródeł ich finansowania. Stwierdzono, że przede wszystkim ze względu na wewnętrzne interesy ekonomiści rolni w Wielkiej Brytanii analizują głównie zagadnienia związane z polityką rozwoju obszarów wiejskich, aspektami środowiskowymi i wsparciem w zakresie decyzji o charakterze politycznym, zaś w mniejszym stopniu zajmują się ekonomiką i organizacją gospodarstw i przedsiębiorstw rolniczych czy handlem międzynarodowym produktami rolnymi. W zakresie stosowanych metod badawczych stwierdzono, że są one zbliżone do tych stosowanych w innych krajach, z wyraźnym nastawieniem neoklasycznym i instytucjonalnym. Metody ilościowe w modelowaniu rynków są jednak coraz mniej wykorzystywane. Podmioty zajmujące się badaniami w obszarze ekonomiki rolnictwa poddawane są szerokiej ocenie, zarówno wewnętrznej jak i zewnętrznej, od której zależy wielkość finansowania. Finansowanie jest często przeznaczane na projekty o charakterze multidyscyplinarnym.

Corresponding address:
Kenneth J. Thomson
University of Aberdeen
Department of Geog. and Environmental
St Mary's, Elphinstone Road
Aberdeen AB24 3UF, Scotland UK
James Hutton Institute, Craigiebuckler
Aberdeen AB15 8QH, Scotland UK
tel. +44(0)1224 395309, General Office 395000
e-mail k.j.thomson@abdn.ac.uk