
Burrell, A.: Is it becoming more difficult to research EU agricultural sector policies? In: Weingarten, P., Banse, M., Gömann, H., Isermeyer, F., Nieberg, H., Offermann, F., Wendt, H.: Möglichkeiten und Grenzen der wissenschaftlichen Politikanalyse. Schriften der Gesellschaft für Wirtschafts- und Sozialwissenschaften des Landbaues e.V., Band 46, Münster-Hiltrup: Landwirtschaftsverlag (2011), S. 221-231.

IS IT BECOMING MORE DIFFICULT TO RESEARCH EU AGRICULTURAL SECTOR POLICIES?¹

Alison Burrell²

Abstract

This paper examines the view that it is becoming increasingly difficult to analyse and evaluate the agricultural sector policies that are operating or being considered for implementation in the EU. It presents several reasons why this may be the case, and discusses a number of the new challenges facing EU agricultural policy researchers. No unambiguous answer is offered to the question posed in the title, but nonetheless the paper concludes on a note of cautious optimism.

1 Introduction

Many policy researchers share the perception that it is becoming increasingly difficult to analyse and evaluate current and prospective policies in the agricultural sectors of developed countries. It is certainly true that, over recent decades, this research area has expanded significantly in the EU, and that EU agricultural sector policy research is increasingly conducted by large research teams, often operating as consortia.

The growing complexity and scientific challenge of policy-relevant research in agriculture generally has been recognised by the European Commission's Standing Committee for Agricultural Research (SCAR). As its current mandate states, after referring to the much wider context in which agricultural policy is now situated and the more extensive array of issues covered, "(s)uch developments make it unlikely that any single European country will have the resources or capacity to adequately address all the research necessary to support policy on these and other trans-boundary issues that are emerging" (SCAR, 2005).

This paper looks at one part of the currently vast research agenda related to EU agriculture, namely the analysis and evaluation of agricultural policy itself, and investigates the validity of this perception for that field of research. Our emphasis is on the intrinsic scientific complexity of current agricultural policy analysis rather than the resources needed to address it. In section 2, it is argued that EU enlargement, as well as shifts in the objectives and instrumentation of the CAP, have greatly increased the complexity and challenge of conducting empirical policy research. Section 3 illustrates this with a closer look the EU's expanding rural development programme. Section 4 gives examples of how exogenous developments in the wider context in which agriculture operates are also posing new challenges for policy researchers. Finally, section 5 takes stock of the current situation and looks towards the future.

2 Fundamental changes due to EU legislation

The last two decades have seen a steady evolution of the EU agricultural policy context due to changes in EU legislation. Two changes in particular – EU expansion and successive reforms of the CAP – have changed the 'landscape' of agricultural sector research in the EU, significantly increasing the dimensions of the research task and confronting researchers with unfamiliar policy instruments, some of which are new also to the general policy literature.

¹ The views expressed are purely those of the authors and may not in any circumstances be regarded as stating an official position of the European Commission.

² At the time of writing this article, the author was employed by JRC-IPTS, European Commission, Sevilla, Spain. Dr. Alison Burrell, C/ Zaragoza 13-H, E-41001 Spain, E-Mail: alison.burrell85@gmail.com

2.1 Enlargement of the European Union

EU enlargement expanded the number of member states to 15 in 1995, with the accession of Austria, Finland and Sweden, to 25 in 2004, with the accession of eight former communist bloc countries and two small Mediterranean islands, and to 27 in 2007 with the entry of Romania and Bulgaria in the extreme south east.

These successive enlargements have increased the heterogeneity of agro-climatic conditions within the EU, and the range of farming types and technologies found across its territory. In addition, data sets and data quality are now less homogeneous across Member States than was the case before these last three expansions. Indeed, for many variables of interest to policy researchers, time series are still short for the newest 12 entrants. This means that, in these cases, econometric methods still cannot provide robust elasticity estimates. Of course, longer time series for the newest entrant countries, if available, would bring other problems: since most of the new entrants were, during the decade of the 1990s, moving along their transition paths from centrally planned systems to market economies, institutions, structures and behaviour were not stable or representative enough to generate data suitable for deriving reliable 21st century estimates of behavioural parameters. Moreover, even now, there are still differences between EU-15 and EU-12 in the way certain CAP instruments are implemented, although these differences are disappearing with time.

As a result of this greater heterogeneity and dimensionality, it is much harder for a single researcher or research unit aiming to conduct policy research at EU level to have a good working knowledge of conditions in all Member States. This implies the need for larger research teams, bringing with them problems of coordination and extra challenges in harmonising the approach and the quality of the research. These problems are often successfully solved, but the cost often is that it takes longer to finalise projects. A benefit is that networks are put in place that can be exploited for EU-level research in the future.

2.2 Evolution of the CAP³

Since the MacSharry reform (1992), the CAP has been steadily moving away from market measures (principally, market price support and stabilisation by means of border controls and intervention mechanisms) towards non-market measures that directly target farmers. In the Fischler reform (2003), not only was another major sector (milk) brought under the regime of lower price support compensated by a direct payment, but it was also agreed to merge the milk payment (converted to an area equivalent) with the existing area payments for cereals, oilseeds and protein crops⁴. Commodity-specific justification for these payments, redefined according to a historic reference year, was dropped, thereby creating the Single Farm Payment and underlining the intention that this payment should be considered as fully decoupled. These payments accounted for about 56% of expenditure in the agricultural budget in 2008.

There has also been a sizeable shift of policy support out of Pillar 1 of the CAP into Pillar 2 (which in 2008 represented nearly 25% of agricultural budget expenditure). The main differences between Pillar 1 and Pillar 2 measures are that, whilst the former are fully financed from the EU budget and apply to all farmers in the target category, the latter are co-financed by Member States and are discretionary at two levels: Member States choose and design their own projects (which must satisfy guidelines as set out under the four axes defined in Regulation (EC) 1698/2005) and then individual farmers may opt to take part in projects offered by their national government (subject to their satisfying the eligibility criteria specified by the project).

³ For more details, see BURRELL (2009).

⁴ The same occurred for the sugar sector in the 2005 sugar reform.

Pillar 2 measures that target farmers (Axes 1 and 2) provide incentives for them to undertake actions to modernise their farms and otherwise improve the competitiveness of the agricultural and forestry sectors, or to enhance the rural environment⁵. Although these payments are targeted to farmers, they come under the general heading of ‘rural development measures’, which denotes an implicit objective that the payment will be recirculated in the local economy and boost local development. There are also payments (under Axis 3) to non-agricultural businesses, aiming to stimulate the quality of life in rural areas and diversification of the rural economy, with a specific focus on micro-enterprises and tourism.

The shift from Pillar 1 to Pillar 2 has greatly increased the heterogeneity of policies within the CAP, and created differences in the incidence of support between Member States and between farmers within a member State, even after farm-size differences are taken into account. Equally important in the context of policy research, Pillar 2 measures have explicitly introduced new aims and objectives – principally, enhancement of the environment and development of the rural economy. As in the general case, evaluation of these policies requires an analysis of their impacts on the targeted objectives. However, unlike the targets of the pre-reform CAP (farm incomes, market prices, commodity production), the new targets are multifaceted clusters of desired outcomes, many of which (such as landscape quality, biodiversity) are difficult to quantify. Other impacts, like development of the local rural economy, may be more easily conceptualised via a set of quantifiable indicators, but are hard to measure empirically, because rural economies are influenced by a multitude of other time-varying factors whose effect is difficult to separate out from those of a stimulus from a CAP rural development measure (see below). For both rural development and environmental policies, time lags between policy stimulus and impact are diffuse and uncertain.

In summary, it is clear that new challenges now face the policy researcher, due to increased heterogeneity of the EU agricultural sector (farm conditions and farmer behaviour) and policy instruments, greater differences between Member States in the policies actually applied and the take-up of those policies, and new policy objectives in relation to which policy impacts are more difficult to identify unambiguously. The virtual removal of commodities as links between policy measures and impact variables (like resource use or farm incomes) means that the CAP is increasingly territorially-defined (through payments to land) rather than commodity-defined, although commodity markets, at national and EU level, are still relevant for analysing market stabilisation measures and trade outcomes. However, policy impacts on farmers and farming, the rural environment or rural economies ideally require a more disaggregated, spatially precise analytical framework, well below national level in all but the smallest countries.

3 Research approaches to the assessing rural development policies⁶

Researchers have been grappling for a decade or so with the challenge of assessing policies (whether targeted to farms or to non-farm activities) intended to stimulate development in rural areas. A first task is that of determining the appropriate territorial units for the analysis: is a ‘rural economy’ the same as a region, and if so, at what level of disaggregation should regions be specified? Or is a rural economy not only a relatively small (sub-national) area but also one without any very large towns or cities falling within it? Clearly, the closer one comes

⁵ Although the Fischler reform introduced environmental cross compliance conditions to Pillar 1 direct payments, monitoring cross compliance is not included here impacts under the heading of ‘agricultural policy research’. This is because virtually all the cross compliance items are statutory requirements for farmers, which they should comply with in any case, and as such they do not originate within the CAP. One would expect them to be evaluated under an environmental policy heading, although this is not ideal either given the real possibility of their interaction with the economics of agricultural activities.

⁶ Part of this section is loosely summarised from work done by the author for OECD in 2009, and appearing as chapter 5 in OECD (2009). EUROPEAN COMMISSION (2010) provides a useful summary of many of these issues.

to an intuitively satisfying definition of a ‘rural economy’, the less likely one is to find data sets isolating the economic activities within that area and specifying their inter-linkages, as well as their backward and forward linkages with other areas.

A major question concerns the causal chain: so-called ‘rural development measures’ → rural economic performance → longer-term rural development target variables like population change, new enterprise formation and employment growth. The Dynamics of Rural Areas (DORA) project (BRYDEN AND HART, 2003) looked for evidence on the second of these links, using a series of case-studies across the EU, and concluded that, at local level, differences in rural economic performance were associated, statistically and by interviewees’ perceptions, with a number of longer-term development indicators. However, there was enough regional specificity to prevent a standardised explanation of regional economic development.

In the United States, PORTER ET AL. (2004) found that competitiveness based on rival firms and institutions located in clusters (concentrating specific forms of social capital that are appropriate for their activities) is as important for rural development success as it is for regional economies. Aided by the relative attractiveness of the countryside in terms of quality of life and improvements in communications, the spread of external economies should also favour the development of internationally competitive *rural* clusters, and investment in human capital can accelerate the process. Structural characteristics of rural economies, like accessibility to new markets, opportunities for diversification, and local capacity to adapt to economic change, were found to determine the success of rural development policy measures.

The emphasis of these findings on regional specificity highlights the need for a counterfactual scenario that can isolate the *ceteris paribus* impacts of rural development policy intervention. Unfortunately, simple cross-section analysis based on regions that aims implicitly to use regions with different levels of rural development spending as counterfactuals for each other (e.g. MCGRANAHAN AND SULLIVAN, 2005) falls into the trap of selection bias. Economists favour the use of formal simulation models precisely because the ‘no-policy’ scenario serves as a *ceteris paribus* counterfactual scenario for the ‘with-policy’ simulation. It is very difficult, however, to construct such models at an appropriate regional scale because of data needs, imperfect understanding of causal pathways and lack of reliable response parameters.

Currently, policy researchers favour two other approaches: Social Accounting Matrix (SAM) multiplier models, which embed an input-output (I-O) model of the production sector and extend the coverage to household consumption and income distribution, the functions of other institutions contributing to demand⁷, and CGE models, which overcome the demand-driven nature of I-O models by adding behavioural equations and elasticities to reflect resource constraints, and which take into account feed-back from other economic sectors⁸. Given the large data requirements, however, both approaches have tended so far to focus on only one or a few regions. For example, ROBERTS (2000) explored the interaction between rural areas and their urban pole in a region of Northeast Scotland, using a bi-regional SAM that depicts inter- as well as intra-local economic interactions, and finding stronger spill-over effects from the urban to the rural locality, relative to the other direction from rural to urban. PSALTOPOULOS ET AL. (2006) also used a SAM approach to examine inter-linkages between two rural localities and an urban centre in Crete, and the diffusion patterns of economic impacts of three elements of the CAP: commodity support, investment to improve farm structures, and promotion of economic diversification. By contrast with Roberts’ findings, the benefits of rural support were found to flow substantially into the urban economy; high-income households were the main beneficiaries of commodity support; whereas middle-income households benefited most

⁷ For example, ROBERTS (1995, 2003), KILKENNY (1999) and PSALTOPOULOS ET AL. (2006).

⁸ For example, KILKENNY (1993), McDONALD AND ROBERTS (1998), OLATUBI AND HUGHES (2002).

from measures to promote economic diversification⁹. CGE models usually indicate smaller effects of demand changes than SAM approaches.

These very detailed and data-intensive studies illustrate that a formal modelling approach can produce insights into policy impacts when the relevant causal pathways are well understood and can be realistically parameterised. In the typical case, however, primary research is lacking to determine how agents react to the policy and to provide data on the strength of their responses. The same problems hold when models are used to trace the impacts of agri-environmental measures on environmental targets. For both types of policy, when primary empirical research is lacking, modellers have to fall back on general assumptions from theory (of how rational agents *should* react) and on ‘best guesses’ about likely response parameters or environmental impact coefficients (sometimes labelled ‘expert knowledge’).

The challenges of measuring the impact of rural development measures on rural economies or that of agri-environmental payments on environmental targets have in common that they involve long, complex causal linkages that may partly cross disciplinary boundaries. The scope for using linked models to explore such long causal chains is discussed in BURRELL (2008).

4 New policy issues due to exogenous developments

Apart from changes in the context and the requirements placed on the agricultural policy researcher by new EU legislation, a number of new policy issues have arisen due to exogenous changes not triggered by EU decisions. Some of these new issues have already stimulated a policy response within the EU, whilst in other cases policy makers are considering whether a policy response is needed and, if so, what form it should take.

4.1 Market price volatility

During the period 2007-2009, and after many years of rather stable prices, there was strong volatility in EU commodity prices. This was caused partly by the direct transmission of volatility from world market prices¹⁰, followed by a general weakening of demand due to the global economic crisis, which the remaining floor-price mechanisms in the EU were unable to prevent from affecting domestic market prices. Other factors (financial market spillovers, price manipulation by the food chains and/or by speculative stockholders, and so on) are also cited by some commentators. Although EU farmers now receive (decoupled) direct payments as well as market-generated compensation, these sharp price movements had a considerable impact on farm incomes and gave rise to loud calls for assistance to the farm sector.

This recent experience gives new urgency to policy-related research in this area. A first priority is for research to provide a rigorous scientific explanation of the recently observed volatility, which can objectively weight the contribution of – or rule out as contributory factors – the different explanations that are being put forward. This is desirable before deciding whether or not a policy response is needed, and if so, what form it should take. Unfortunately, after decades of market insulation and internal stabilisation measures, which have only recently been weakened, the policy research arsenal on this topic within Europe is not well-stocked. There are many unanswered questions relating to inter-market price transmission mechanisms as well as to producer perceptions and responses to volatility.

If greater price volatility is likely to recur in the future, various questions arise. For example, can an adequate policy response be formulated *before* the underlying causes of the increased volatility is properly understood by researchers? Should simulation models currently used for

⁹ For studies examining the links between forestry activity and rural economies, see MUNDAY AND ROBERTS (2001), EISER AND ROBERTS (2002).

¹⁰ Exacerbated by the new closer links between prices for energy and for agricultural commodities, not least because of the use of some crops as biofuel feedstocks (see, for example, SERRA ET AL., 2011).

policy analysis be adjusted to reflect (potentially) reduced supply responsiveness to price changes due to the interaction between farmer risk aversion and expected price volatility? And if so, to what extent?

4.2 Price transmission in the food chain

The degree of price transmission along food supply chains is another current policy concern. Existing studies¹¹ tend to highlight that researchers still know relatively little about this issue in the EU, and that here too there is great heterogeneity between both Member States and products. Clearly, it is not necessary to have reliable empirical estimates about the situation for every commodity chain in all Member States, but an adequate scientific approach would be comprehensive enough to establish a typology of the various situations in which price transmission is imperfect, as well as the characteristics of the imperfection and its underlying causes, in order to support policy decisions in the area.

A major requirement for in-depth analysis of what happens within supply chains, which are often characterised by several vertical intermediate stages between the supplier of the primary commodity and the consumer, is the availability of data, and – when transmission is imperfect – of objectively observed information about exactly how prices are formed at each stage along the chain and where the market power resides. Such information is generally very difficult to obtain. Relevant questions include whether market power is exercised in a symmetric way for both falls and rises of price in primary commodity markets, and whether price changes due to demand shifts in consumer markets reach farm prices.

Here also, the question arises as to whether our existing policy simulation models need to be adapted in order to include supply chain behaviour explicitly. Many agri-economic models in current use as policy decision-support tools treat the market for agricultural commodities as if it is the market of final demand, thereby assuming that demand elasticities used in these first-point-of-sale markets are the same as those of the final consumer. This provides valid simulations of market outcomes only if price changes are fully transmitted downstream.

4.3 Climate change

In 2007, the EU Council pledged to cut total greenhouse gas emissions by 20% from 1990 levels by the year 2020, and to boost the figure to 30% if the rest of the developed world adopts the same cut (an opportunity missed in Copenhagen in 2009). Two years later, the Commission's White Paper (EUROPEAN COMMISSION, 2009b) stated: "Adaptation needs to be mainstreamed into EU policies. This exercise has to be carefully prepared, based on solid scientific and economic analysis. In each policy area there should be a review of how policies could be re-focused or amended to facilitate adaptation". A significant element in the proposed strategy is an increase in the resilience of European agriculture and forests, and "the CAP is well placed to play a central role in contributing to adaptation, not only by helping farmers to adapt their production to the changing climate situation, but also by helping provide wider ecosystem services dependant on specific land management". So far, the main concrete changes have been several new measures that were created within Pillar 2 in the Health Check mini-reform. However, one can expect more incentive measures to come.

Regarding mitigation, farming groups in Ireland and Denmark recently proposed introducing measures to reduce GHG emissions by cattle, and there has been discussion of including agriculture in the European Emission Trading Scheme. Scope for carbon sequestration by agriculture is another lively issue (see, for example, LOUWAGIE ET AL., 2009; IZAURRALDE ET AL., 2001; SCHILS ET AL., 2008).

¹¹ See, for example, European Commission (2009a), Lloyd et al. (2006), Meyer and von Cramon-Taubadel (2004), and Peltzman (2002).

These developments suggests that, in the foreseeable future, policy makers will require researchers - almost as a matter of routine - to analyse impacts of economic policies targeted to agriculture on greenhouse gas emissions, along with their impacts on the usual array of politically-relevant indicators. A conceptually different, but equally demanding, task is that of analysing the effects on agriculture of policies targeted on GHG emission reductions. In both cases, analytical models of economic behaviour will need to include linkages between economic policy instruments, producer decision making, specific GHG-emitting activities, and emission levels. Work is underway extending the CAPRI model to cope with this kind of policy request, but much more remains to be done. Furthermore, the response parameters of sector models will need closer and more frequent review to make sure they keep up with farmers' technological and behavioural adaptation to climate change.

4.4 Policy questions of global relevance

Various issues on the EU policy agenda concern repercussions of EU policies outside the Union. These issues are often raised by pressure groups or other critics of the policies. A valid research contribution to these policy debates requires analysis that examines EU policy impacts on a global level. An example of such an issue is the current controversy about the impacts of EU biofuel targets on indirect land use change in other parts of the world. The controversy centres on the assertion (see, for example, SEARCHINGER ET AL., 2008) that the GHG saving attributed to biofuels needs to take into account the relative carbon sequestration capacity of the land under the biofuel feedstock crop relative to the sequestration capacity of the land in its most likely alternative use. If, runs the argument, land that was previously virgin forest or peatland (with a higher carbon storage capacity than an arable crop) is converted to arable land in order to accommodate demand for biomass, the loss of stored carbon when the land is cleared must be offset against any GHG saving from the biofuel. For example, should the EU biofuel target lead to an expansion of palm oil plantations in the Far East at the expense of rainforest, or of arable crops in Latin America at the expense of savannah, then GHG emissions would increase, at least in the medium term. Thus, to provide policy makers with answers to this controversial question, it is necessary to model the impacts of EU biofuel policies on crop production and the land used for that production globally and, ideally, identify the previous use of any increase in cropped land. IPTS (see IPTS, 2010), among others, have made attempts to provide this information, but due to limitations of all available models, the evidence is still partial.

Another current policy issue involving global impacts of EU policies centres on food scarcity. Various farming groups are currently lobbying policy makers to recognise that the EU has a 'responsibility' to help feed the world's growing population, and that EU agriculture should not be pruned back to satisfy only the needs of the relatively stable EU population (see, for example, COPA-COGECA, 2010). A full scientific assessment of EU agricultural policies in relation to world food needs would require a global agri-economic model, preferably with disaggregation of consumption according to household income thresholds within the poorest countries.

Research that contributes to the political debate on these new issues faces challenges of data availability, of significantly expanding or adapting existing tools – or possibly developing new tools - and of new methodological expertise. In addition, it may mean that policy researchers have to invest more time in discussing the new issues with end-users in a research perspective, and in familiarising them with the new research tools that are adopted in order to address them. In at least some of these cases, the new issues call for a more multidisciplinary approach than used hitherto, since the scope of the causal policy chains under scrutiny extends outside the boundary of conventional agri-economic policy analysis.

5 Looking ahead

5.1 What do policy makers want to know?

Casual observation suggests that, as well as more conventional analyses of *ex post* policy impacts, there has been an increasing demand for *ex ante*, prospective impact studies of new policies, or of existing policies operating outside the range of settings used in the past. This is understandable in a period of rapid policy evolution and re-instrumentation. It also, however, creates colossal challenges for policy researchers precisely because some of the policies are new and untried. The reasons have already been mentioned above – lack of data, lack of supporting primary research, poor knowledge of causal pathways that have not until now been required to transmit policy stimuli, and need for new tools.

As far as Pillar 2 is concerned, it is debatable whether an *ex ante* focus is always sensible for many of these measures. Since the commitment of funds to specific rural development projects is, by comparison with Pillar 1 measures, relatively small, the need for an *ex ante* study before money is finally committed to a particular project is not so compelling. What could well be more appropriate is rigorous and rapid *ex post* analysis of such policies, treating them almost as pilot studies, so that best-practice guidelines can be derived and Member States can learn in useful time from what has been done elsewhere. It is also worth pointing out that (a) the take-up rate of rural development measures may be very hard to estimate in advance and (b) the effects of rural development measures are often slower to act and with much more uncertain time lags than producer responses to annual commodity response changes. These characteristics create special difficulties for *ex ante* studies.

It is also clear from our quick review of new policy objectives that policy impacts often need to be analysed well below national level. Although budget expenditure on these very targeted, locally implemented policies can be aggregated to EU-level totals it is much harder to obtain meaningful aggregate estimates of their impacts. Furthermore, this might often be inappropriate. Because of the voluntary, partial nature of Pillar 2 measures, and since Member States design their own policies, it follows that policies under the same heading in two different Member States, or tailored for two different regions in the same Member State, may be quite different from each other. Therefore, policy makers' wish to have a more aggregate, or EU-wide, impact estimate for each of these policies may well be misplaced, since the heterogeneity of the measures may render an aggregated measure uninterpretable. In these circumstances, a case study, or a set of well chosen and contrasting case studies, might provide better insights into how such a policy operates, and how its outcomes may be sensitive to features of the local situation.

For those CAP measures that, although funded from a common budget and according to common rules, are now in their design and operation rather specific to Member States or to regions within Member States, it is debatable whether their impact should or needs to be measured at EU-27 level. Acceptance of this reality could take the pressure off researchers to strive for EU-level results where a lot of guesswork and investment in collecting poor data imply huge (but unknown) error margins around the total figure. Having said this, the role for *ex ante*, EU-level studies of markets and trade flows remains unchallenged.

5.2 Where should policy researchers invest new resources?

The discussion above indicates the need for (a) more primary research and less 'making-do' with established, general-purpose data collections, (b) a more vigorous effort to work out the theory in detail (or track it down in the existing literature) of some of the new policy measures, rather than falling back too quickly on basic theory and empirics (c) some rebalancing between more detailed, more informative 'micro' or case studies and EU-wide, aggregate studies. Apart from this, EU agricultural policy researchers should be encouraged to carry on

with their business as usual, with continuing emphasis on rigour, good communication and willingness to adapt.

This is now the season of crystal ball gazing, where researchers are preparing themselves for analysing the post-2013 CAP. It is possible that at least some of the ‘emerging issues’ discussed above in section 4 will be the object of new policy measures. A considerable amount of field research is needed, which could start immediately, in order to improve basic knowledge of these phenomena in the EU in preparation for the new feature of the 2013 CAP.

The question also arises as to whether, now that co-decision with the European Parliament affects much agricultural policy decision-making, we should expect a greater demand for analysis of the *social* impact of policy measures. This could, for example, take the form of requests for a breakdown of aggregate impacts according to the distribution of the effect by socio-economic level, or for more emphasis on non-economic indicators such as health (of farmers, consumers, animals) and well-being. In addition, the usual list of stakeholders taken into account in many agricultural policy research studies is surprisingly narrow, despite the potentially wide-reaching social effects of some policy measures. It may be time for policy researchers to give thought to new opportunities for analysis in these directions.

Finally, in answer to the question raised in the title, this rapid overview of current challenges supports the idea that demands and difficulties of researching EU agricultural sector policies have indeed been increasing and will continue to increase. However, it must also be said that the size and expertise of the European agricultural policy research community has also been growing strongly in recent years. What is needed now is a reappraisal by both policy makers and researchers of what is feasible and sensible in specific contexts, which may lead to some realignment of expectations about what kinds of research can yield the most usable insights in those contexts, what is of secondary or very short-term value only and what is unrealistic to expect even though it might appear to be highly desirable.

Bibliography

- BRYDEN, J.M. AND HART, J.K. (2003): A new approach to rural development in Europe: Germany, Greece, Scotland and Sweden. Mellen Studies in Geography, Lampeter:
- BURRELL, ALISON (2008): Art or science? The challenges of publishing peer reviewed papers based on linked models. In: *Agrarwirtschaft* 57: 391-94.
- BURRELL, ALISON (2009). The CAP: Looking back, looking ahead. In: *Journal of European Integration* 31: 271–289.
- COPA-COGECA (2010): EU farm leaders emphasise positive role agriculture plays in building Europe. Press Release, 3/3/2010. Available at: <http://www.copa-cogeca.be/Main.aspx?page=Archive&lang=en>. Last accessed October 2010.
- COUNCIL REGULATION (EC) No 1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD).
- EISER, D. AND D. ROBERTS (2002): The employment and output effects of changing patterns of afforestation in Scotland. In: *Journal of Agricultural Economics* 53(1): 65-81.
- EUROPEAN COMMISSION (2009a): Analysis of price transmission along the food supply chain in the EU. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Commission Staff Working Document. SEC(2009) 1450.
- EUROPEAN COMMISSION (2009b): Adapting to climate change: Towards a European framework for action. White Paper. COM(2009) 147 final.
- EUROPEAN COMMISSION (2010): Approaches for assessing the impacts of the Rural Development Programmes in the context of multiple intervening factors. Working Paper, prepared by the European Evaluation Network for Rural Development for the Directorate for Agriculture and Rural Development, March 2010. Available at http://ec.europa.eu/agriculture/rurdev/eval/index_en.htm. Last accessed October 2010.

- IPTS (2010). Impacts of the EU biofuel target on agricultural markets and land use: a comparative modelling assessment Available at: <http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=3439>. Last accessed October 2010.
- IZAURRALDE, R.C., N.J. ROSENBERG AND R. LAL (2001): Mitigation of climatic change by soil carbon sequestration: issues of science, monitoring, and degraded lands. In: *Advances in Agronomy* 70: 1-75.
- KILKENNY, M. (1993): Rural-urban effects of terminating farm subsidies. In: *American Journal of Agricultural Economics* 75: 968-980.
- KILKENNY, M. (1999): Interregional fiscal accounting. In: *Growth and Change* 30: 567-589.
- LLOYD, T.A., S. MCCORRISTON, C.W. MORGAN AND A.J. RAYNER (2006): Food scares, market power and price transmission: the UK BSE crisis. In: *European Review of Agricultural Economics* 33: 119-147.
- LOUWAGIE, G., S.H. GAY AND A. BURRELL (eds) (2009): Final report on the project 'Sustainable Agriculture and Soil Conservation. JRC-IPTS, European Commission. Available at: <http://soco.jrc.ec.europa.eu/documents/EUR-23820-web.pdf>.
- MCDONALD, S. AND D. ROBERTS (1998): The economy-wide effects of the BSE crisis: a CGE analysis. In: *Journal of Agricultural Economics* 49: 458-471.
- MCGRANAHAN, D. AND P. SULLIVAN (2005): Farm Programs, Natural Amenities and Rural Development, ERS/USDA. Available at: www.ers.usda.gov/amberwaves/february05/features/farmprograms.htm. Accessed October 2010.
- MEYER, J. AND S. VON CRAMON-TAUBADEL (2004): Asymmetric price transmission: A survey. In: *Journal of Agricultural Economics* 55: 581-611.
- MUNDAY, M. AND A. ROBERTS (2001): The role of the forestry industry transactions in the rural economy. In: *Journal of Rural Studies* 17: 333-346.
- OECD (2009), Methods to Monitor and Evaluate the Impacts of Agricultural Policies on Rural Development, Available at: <http://www.oecd.org/dataoecd/32/43/44110564.pdf>.
- OLATUBI, W.O. AND D.W. HUGHES (2002): Natural resource and environmental policy trade-offs: a CGE analysis of the regional impact of the Wetland Reserve Program. In: *Land Use Policy* 19: 231-241.
- PSALTOPOULOS, D. E. BALAMOU AND K.J. THOMSON (2006): Rural-urban impacts of CAP measures in Greece: an inter-regional SAM approach. In: *Journal of Agricultural Economics* 57: 441-458.
- PELTZMAN, S. (2002): Prices rise faster than they fall. In: *Journal of Political Economy* 108: 466-502.
- PORTER, M., C. KETELS, K. MILLER AND R. BRYDEN (2004): Competitiveness in rural U.S. regions: learning and research agenda. Harvard Business School (Institute for Strategy and Competitiveness), Boston, MA.
- ROBERTS, D. (1995): Agriculture in the wider economy: the importance of net SAM linkage effects. In: *European Review of Agricultural Economics* 22: 495-511.
- ROBERTS, D. (2003): The economic base of rural areas: a SAM-based analysis of the Western Isles. In: *Environment and Planning* 35: 95-111.
- ROBERTS, D. (2000): The spatial diffusion of secondary impacts: rural-urban spillovers in Grampian, Scotland. In: *Land Economics* 76: 395-412.
- SCAR (2005). SCAR mandate: the scope and role of the new SCAR. Available at http://ec.europa.eu/research/agriculture/scar/index_en.cfm?p=3_mandate. Last accessed October 2010.
- SCHILS, R. ET AL. (2008): Review of existing information on the interrelations between soil and climate change. Final Report of the ClimSoil Project. Available at: http://ec.europa.eu/environment/soil/pdf/climsoil_report_dec_2008.pdf. Last accessed June 2010.

- SEARCHINGER, T., R. HEIMLICH, R.A. HOUGHTON, F. DONG, F., A. ELOBEID, J. FABIOSA, S. TOKGOZ, D. HAYES AND T.-H. YU (2008): Use of U.S. croplands for biofuels increases greenhouse gases through emissions from land-use change. In: *Science* 319: 1238-40.
- SERRA, T., D. ZILBERMAN AND J.M. GIL (2011): Price volatility in ethanol markets. In: *European Review of Agricultural Economics* (forthcoming).