OECD’s work on agricultural policy: 
A bridge between research and government*

Die Arbeit der OECD zur Agrarpolitik: 
Eine Brücke zwischen Forschung und staatlicher Politikgestaltung

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Abstract

The role of the OECD in linking the research and policy communities is described as well as the processes whereby OECD member countries scrutinize the work undertaken. A major project on decoupling of agricultural policy measures is used to illustrate the approaches and processes used. Attention is drawn to gaps in data or analysis, from the point of view of the needs of policy-makers. Areas of priority interest for policy research in the future are explored.

Key words 
agricultural support; OECD; decoupling; agricultural policy; risk

1 Introduction

The Organisation for Economic Co-operation and Development (OECD) is an institution that during its almost 50-year existence has metamorphosed from its first role in the implementation of the post-war Marshall Plan, to the cold war voice of capitalism and the market economy, to its role today as an intergovernmental think tank whose mission is to foster growth and prosperity by advising governments on economic policy across a vast range of spheres from macroeconomic, to fiscal affairs, education, labor, trade, agriculture and many others. A key tool is benchmarking – improving policy performance through comparison with other countries or other sectors. The OECD is uniquely positioned to do this through its networks of government officials that meet regularly at the OECD’s headquarters in Paris.

2 The OECD – History and Role

Throughout most of its history, the OECD has sought to assist governments in developing efficient and cost-effective agricultural policies, and it continues to do so. That was not surprising in a world where the agricultural sector accounted for a major share of GDP and employment. In today’s world though, the share of the agricultural sector in GDP and employment in the richest countries is very small. The continued emphasis on agriculture and agricultural policy is explained by several factors. The first is the pervasiveness of government intervention (OECD, 2010a). The second relates to the importance of agriculture in emerging economies – several emerging economies have a huge potential as agricultural producers and exporters. The world economic order is changing with the emergence of countries such as Brazil, China, India and others and this is no less true with respect to food and agriculture. It is important that dialogues with these countries be informed by an
understanding of their interests and policies (OECD, 2009a). Thirdly, reflection about the importance of agriculture and agricultural policy in the development process in poorer countries is once again center stage. The current impasse in the Doha Development Agenda, in part due to difficulties over market opening in agriculture, sums it up nicely. Finally, there is a persistent and pervasive view among people and governments that agriculture is different. Different because food is essential to life and therefore something to which governments need to pay attention. This is more geo-politics and sovereignty than simple economics. The agricultural sector is unusual because a large number of “relatively” small producers supply increasingly concentrated processing and distribution sectors. Moreover, the agricultural sector is also different because agriculture is not just a producer of food, but also a provider of non-market goods such as landscape, environmental quality, biodiversity and recreation – it is in many ways responsible for the shape of the world we live in and how we think about ourselves.

3 Agriculture Policy Analysis at the OECD

The OECD’s working methods are unique. For agriculture, a group of about 30 professional economists, supported by statisticians and research assistants, service a system of committees and working parties. The analysis on which policy conclusions and recommendations are founded is done in-house for the most part. In-house economists also draw on an extensive network of researchers in academia and government institutions dedicated to policy research. In this way, the OECD forms a bridge between the research community and the policy community. Policy-relevant results are harvested from research undertaken elsewhere and communicated in ways that are understandable to less technical and less economically focused audiences. There are several ways in which “bridging” occurs, including recruiting from academia, consulting and holding expert meetings and workshops, all of which facilitate this precious interaction. The information-flow on the bridge is two-way. Sometimes the OECD launches reflection on a policy issue that is anticipated or is emerging as important. As theoretical or empirical gaps are uncovered, interest is triggered in academia. In recent years, this has been the case for work on topics such as multifunctionality and decoupling (OECD, 2001a; OECD, 2003; OECD, 2005a, 2005b). Papers and publications from the OECD are not subject to peer review in the sense that articles for scientific journals are. They are, however, subject to a different type of peer review – that of the scrutiny of the 131 member countries1 of the OECD (OECD, 2008c; OECD, 2010c). Virtually all papers that are made public have been vetted and agreed upon by OECD committees – a unique process which other institutions do not use. This is particularly true of the most policy-relevant papers which contain guidelines, best practice or other types of policy recommendations. Member countries are not constrained to abide by these recommendations as they do not have the status of legally binding instruments. Rather, following examination by member countries, the conclusions and recommendations have been judged to be sufficiently and firmly based on evidence and analysis that even countries with very different policy positions can agree to their dissemination. In many ways, this is a strength which allows the Secretariat and member countries to remain within the bounds of evidence-based advocacy when communicating the results of the OECD’s work. But this is also where political economy sometimes clashes with theoretical or analytical approaches. Occasionally a piece of work will be delayed or blocked, ostensibly for technical reasons, but, in reality, because a country or countries are uncomfortable with the policy implications of the results. To avoid such outcomes, it is necessary for the OECD to ensure the greatest possible degree of scientific rigor and empirical accuracy in the work to which member countries are asked to subscribe. This is a standard to which the OECD aspires in all aspects of the work.

4 The Agriculture Tool Kit

The OECD’s agriculture team maintains a number of research tools that constitute the basic tool-kit. The indicators of support and protection, the PSE, are the oldest and perhaps best known. From its earliest roots in the work of Corden (Corden, 1971), its conceptual development and first application by Professor Tim Josling for the FAO (Josling, 1973, 1975), and through several mutations, including a name change (from Producer Subsidy Equivalent to Producer Support Estimate), the PSE remains a core benchmark against which countries can measure their policy effort.

1 Chile, Israel and Slovenia became members of the OECD in 2010.
in terms of the transfers to farming that result from their policies. These indicators were first developed systematically at the OECD in the run-up to the Uruguay Round negotiations and although they were not directly built into the disciplines on agriculture, their influence in defining and designing the disciplines on domestic support was huge. As policies have evolved, so has the measure. The main change is the new emphasis on the composition of support. In the 1980s, more than 90% of the PSE was generated by price support and border protection. That number is now about 60%. The classification of measures within the PSE by implementation criteria which relate to the first incidence of the measures – not to their objectives or effects – has been the key to these changes.

This information is critical to analysts and modelers for whom the PSE is an input – the first stage in a process of understanding and quantifying the effect of agricultural policies on production, consumption, trade, incomes and welfare. Today, the PSE is calculated (along with a whole suite of derived measures and indicators) for all countries of the OECD (with the EU treated as a single entity) and for key non-member economies, including Russia, China and Brazil. Full documentation is available for free on the internet as well as a recently produced manual (OECD 2009b and www.oecd.org/agriculture/pse). A time series from 1986 to 2009 is available. The OECD’s particular way of working and interacting with its members brings critical scrutiny to the numbers which are published annually.

To better understand the effects of the policy set covered by the PSE, the OECD developed the PEM (Policy Evaluation Model). This is a particularly good example of the way the OECD tries to bridge the gap between research and policy makers. The PEM was inspired by policy models developed first by FLOYD and later refined and extended by GARDNER (FLOYD, 1965; GARDNER, 1987; OECD, 2001b) and its main specificity is its explicit coverage of factor markets, especially land. Input from academic experts was sought and continues to be sought in the process of model maintenance and development through informal expert meetings.

A key difference between an institution such as the OECD and a university faculty relates to the capacity to build and maintain quite costly analytical tools and databases. Perhaps only the OECD could have harnessed the resources to actually generate the PSEs and build the PEM for a significant number of countries and commodities as well as maintain both activities over a relatively long period. In its early days, the PEM was used to carry out policy experiments relating to impacts of different policy measures, specified at a very generic level, on key variables such as production, income and welfare. From these experiments, indicators of transfer efficiency and decoupling were derived. Currently the PEM has been extended to a larger group of countries and commodities and policy specificity has been greatly improved. The most recent applications to evaluating the impact of actual or proposed policy reforms have been for the EU, Mexico, Korea and Japan. These recent applications are much more specific both with respect to the calibration of the model and the specification of the policy instruments. As a result, these applications have hugely gained in their ability to capture the attention of policymakers (OECD, 2009c; OECD, 2008a; OECD, 2006a; OECD, 2004).

The OECD also maintains the Aglink model which is now combined with the FAO’s COSIMO model to generate annual medium-term projections of global agricultural production, consumption, trade and prices (OECD/FAO, 2010b). These baseline projections form the basis for scenario analyses that allow the impact of shocks, such as changes in policy or in the macroeconomic environment, to be quantified. This capacity proved invaluable in the recent past. With the assistance of Aglink/Cosimo, the OECD was able to analyze factors which led to price hikes in 2008, to predict a rapid return to a more normal situation and to caution against panic policy responses that could aggravate the situation (OECD, 2008b). Another output from this long-term investment was a thoughtful contribution to the debate on the role of increased demand for crops for the production of biofuels (OECD, 2007a).

In general, OECD tools and databases are available publicly. The underlying philosophy is that OECD research is essentially a public good produced with public money. Most data are therefore publicly available and protocols exist for the sharing of models, their data and parameters. This information, notably PSEs, PEM and the Aglink/Cosimo model, are used by several member governments and by many university-based researchers. These are the core tools which the OECD develops and maintains in-house. Other methods and tools are used when a problem requires it and when resources permit. There is considerable in-house capacity to use the Global Trade Analysis Project (GTAP). A combined GTAP-PEM model has allowed us to combine GTAP’s general equilibrium
approach with a much greater sectoral specificity. External researchers are asked to explore issues requiring survey data. Thus, the OECD can tap into a large body of research and expertise which it could never hope to develop itself. Nevertheless, this remains a significant challenge as the interest of individual studies using survey data depends on their being sufficiently representative to allow for some degree of generalization. To overcome this difficulty, the OECD has recently begun to develop a network of researchers engaged in the analysis of farm-level data. Through this, the OECD hopes to overcome some of the difficulties associated with micro-analysis. The Network, composed mainly of researchers in government funded institutes, is currently tasked to look into the distribution of farm support among farms of different types, sizes and regions. By adopting a common approach to answering the same question, it is hoped that the Network will help overcome the difficulties that an institution such as the OECD would otherwise have in exploiting the richness of micro-data.

Finally, there is sometimes no other way to shed light on an issue than by resorting to case studies. This too is a difficult area for an institution such as the OECD. Case studies have to be sufficiently representative and therefore sufficiently numerous to illustrate different aspects of the particular policy issue in question and to allow for some degree of generalization. Isolated case studies are too easily dismissed by officials and policymakers who are convinced that they are not relevant to their own country or sector.

The OECD is a forum in which governments can compare experiences and benchmark policy performance. At several steps away from parliament or international negotiations, the OECD is well placed to examine difficult policy issues before they become the subject of negotiation. Issues that are already controversial or already subject to negotiation can be examined through an economic rather than a legal or political lens. Thus, the OECD’s work has often served to clarify and inform policymakers. The PSEs themselves are probably the most obvious example of a tool developed by the OECD which offers an economic viewpoint to policymakers. Additionally, during the past decade there has been important clarifying work on multifunctionality, decoupling and agri-environmental policy (OECD, 2009d; OECD, 2005a, 2005b, 2005c; OECD, 2003; OECD, 2001a). In the trade domain, new understanding has been developed of export competition (export credits and state trading), preferences, regional trade agreements, non-tariff measures and other topics (OECD, 2010d; OECD, 2007b; OECD, 2006b). There has been a constant flow of information between the OECD and policymakers in all these areas, as people, ideas and methods have been exchanged. Sometimes the OECD’s work has identified gaps that have been vigorously taken-up and pursued in academia. In other cases, the OECD has taken its cue from academia and the OECD’s value-added was to make the original work more relevant for policy as well as more easily communicated. The OECD can continue to have an influence only if this continuous information exchange continues.

5 Decoupling

Now we will demonstrate the OECD’s role and approach to agricultural policy questions by reviewing a study carried out at the OECD over a number of years on decoupling. This will serve to illustrate what I perceive as gaps in the OECDs’ approaches, but also as an object lesson in how to communicate with officials, policymakers and stakeholders.

Central to the work on decoupling was a series of experiments with the PEM which involved comparing the impact on production from a change in support arising from different policy instruments, specified in a rather stylized way. Impacts were expressed relative to a benchmark which was the production effect of a change in market price support. This exercise produced a measure of the degree of decoupling. A hierarchy was established with variable input subsidies and market price support at the top of the hierarchy, followed by area payments and historical entitlements. Overall market price support was found to be five times more production distorting than area payments, which, in turn, were found to be slightly more production distorting than historical entitlement payments. Extensive sensitivity testing of key parameters – elasticities of substitution as well as land supply, confirmed the robustness of the hierarchy over a wide range of possible values of the parameters. Basically, this approach (the early work covered crops only) predicted strong extensification effects (as slightly more land comes into production and yields fall sharply) from a switch between market price support and area payments. A strong endorsement of area payments as a decoupled policy instrument with much smaller production and trade effects relative to the price supports they were replacing emerged from this work.
In the real world, there has not been a dramatic or even a discernible decrease in yields or production although growth in yields has slowed and patterns of production have changed. At the time this work was undertaken (and still perhaps), it was too early to embark on empirical verification of what the model predicted – and doing so is a complex and difficult task even with a sufficiently long time series. It was decided to investigate other channels through which policy instruments – that seem to be highly decoupled at the margin – might generate significant production effects. One of these channels was risk. A risk version of the PEM was developed to test the extent to which different policy instruments through their effects on risk, and under the assumption that farmers are risk averse, might have production and trade effects greater than those indicated by the initial experiments. It transpired that risk could indeed be a major determinant of estimated impacts (OECD; 2005b).

The experiments carried out with PEM involved marginal shifts between policy instruments. In the real world, and particularly in the EU, the actual policy change involved a large shift from one type of support to another. It was decided to investigate two related questions – does the initial level of support matter and does program size matter when investigating the impact of a structural shift in policy? Analysis using PEM answered yes to both of these questions.

Conditions associated with area payments require that the land to which the payment accrues should remain in agriculture and be maintained in good agricultural condition. Current single area payments have similar requirements although specific areas of land may be disassociated from the payment and there is no obligation to produce on the land. It was thought important to investigate whether such provisions could influence the decision to produce and what to produce. We were able to do this only with respect to one farm-level, sample dataset. The exercise, though illustrative in nature, demonstrated clearly that these provisions influence the decision to produce and what to produce in particular market settings. We also found that farmers’ expectations about future policy changes can affect the degree of decoupling of otherwise seemingly highly decoupled policy measures. Finally, the effect of more decoupled measures on investment behavior was also investigated. For this analysis we got mixed results, suggesting that such impacts are small.

None of the additional factors investigated were found to be sufficiently strong to change the ranking of the degree of decoupling found in the initial experiments. This was reassuring. The results remained consistent with what theory would suggest a priori; area and historical entitlement payments are less distorting alternatives to price support or input subsidies. Nevertheless, it was not possible to be quite so categorical about the relative levels of the decoupling indicator. There was sufficient systematic and anecdotal evidence suggesting that caution is needed. The policy recommendations which emerged from the above findings also reflected such caution.

OECD member countries have very different views about agricultural policy and the appropriate level and type of intervention. Agricultural policy discussions at the OECD influence negotiations of disciplines on those same policy instruments at the WTO. The way in which the above investigation of decoupling was carried out reflects this context. Similarly, the decision to approach work on multifunctionality through the joint production angle was explicitly in response to the policy debate between countries asserting that production-linked support and border protection were needed and countries favoring more decoupled and targeted approaches. Work currently underway on non-tariff measures (NTM) using a cost-benefit framework asks the question, “Which of a range of possible instruments is the least costly and least trade distorting way to achieve a given objective?” Defining the problem in this way avoids questioning the underlying motivation for policies and allows progress to be made despite the extreme sensitivity of many countries concerning NTMs (OECD, 2010d). More generally, the policy environment changes the way the question is formulated. To be relevant, it is necessary to include the “ifs” and “buts” expressed by skeptics, to challenge the assertions of the already convinced and – above all – to recognize the policy reality facing the countries sitting around the OECD table.

6 What is Missing from the Agricultural Policy Analyst’s Tool Kit?

What has been said to date attempts to illustrate the context in which the OECD’s policy work is carried out. Let me now turn to what I perceive as some important gaps in either our methods or data. The issues I will highlight may become important only when we try to cross the bridge and actually apply the theoretical and technical insights generated by researchers
to the real world, where agricultural policies are designed and implemented.

Let me begin with the question of parameter values. Every effort was made in the decoupling exercise and in later applications of the PEM to obtain accurate parameter values. Academic consultants and experts in this field scoured the literature. Their findings and the manipulation needed to express the reported parameters in a form usable in the PEM were fully reported. The exercise has since been repeated to ensure that more recent estimations have not been overlooked. Sensitivity analysis has demonstrated that the model results are most sensitive to the values of the elasticities of substitution and to the land supply elasticity; however, the scarcity of estimates of these parameters is very striking. When we delve into the literature, we find mainly synthetic estimates or expert opinions. These estimates, of course, have value, but only if there are periodic reality checks in which the estimates are validated either against updated estimates or with respect to their predicted impacts.

There are several possible reasons why elasticities are more often the result of informed opinion than of careful empirical research. As in all walks of life, there are trends which also hold true for research. Nevertheless, I prefer to think that the reason lies in real difficulties. We are dealing with a sector in which dramatic structural change has been occurring. There has also been a strong structural shift in policy away from administered prices as a prime determinant of production. Agricultural policy is subject to strong political economy forces and thus change is not always in consistent directions, which is seen, in particular, in the United States. Over time, the brake and accelerator are applied consecutively or even at the same time. In the European Union, farmers are free to collect payments in the long-term? Moreover, land entitlements are the same as textbook, lump sum payments. Given the persistence of current conditions on payments, that land to be kept available for production and in good agricultural condition the exclusion of certain production choices – not to mention more complex aspects related to expectations and risk – this seems like quite a leap. It is my belief that we have skipped a step somewhere between models that represent commodities and those that represent only labor/leisure trade-offs. In a world where policy incentives are largely neutral in terms of which commodity to produce, commodity models are less relevant for investigating policy issues, but we are still not very good at understanding the complex decision frameworks in which farmers operate and which lead to decisions to exit or expand and to produce or not in a given year.

7 Objective Setting

Although economists sometimes profess interest in allocative efficiency only, cost (in the budgetary or consumer tax sense) is important to policymakers and citizens. It matters who pays and who benefits from policy interventions. There are many competing claims on the public purse. It is therefore incumbent on those who advise on public policy to strive for cost effectiveness and distributive fairness. Best policy practice determines that to meet these criteria of cost effectiveness and distributive fairness in policy implementation, there must be a constant process of evaluation of policy instruments against stated objectives. The first step in any such process must be a clear statement of the objectives and a quantified and verifiable expression of these objectives in terms of the target of the policy measure. Without clear objectives and quantifiable targets, an evaluation of policy is not possible. The extent to which agricultural policy continues to be made in a vacuum is remarkable, with no clear statement or definition of the objectives or of the intended beneficiaries. Let me provide a few examples that persistently arise in agricultural policy processes.

The first example relates to agricultural incomes. Despite the shift to more emphasis on environmental, quality and safety objectives, policymakers clearly
believe that support to agriculture is needed because without it, farm families would experience serious income problems. Yet, a large number of OECD governments do not collect the information needed to assess the income situation of farm families. This is particularly the case, but not exclusively, in relation to farming households’ non-farming sources of income. In many countries such data are absent, hopelessly out of date or hopelessly incomplete. This is an issue which commentators often refer to – it has been pointed out by the EC Court of Auditors, for example. Any case, a situation persists whereby a large amount of public money is transferred from one segment of society to another with virtually none of the checks and scrutiny applied to income support granted to other segments of society. In this way a highly skewed distribution of support – based on current or past production or land holding – occurs that is unlikely to be in line with any explicit societal consensus about the type of redistribution that is appropriate. Moreover, to the extent that the system raises the income of farm households that are already at or above societal norms, such policies are wasteful. A properly targeted approach which starts with a clear definition of the problem and identification of those affected by it would be much less costly in budgetary terms (OECD, 2006c; OECD, 2007c).

Another example of a poorly defined objective relates to rural development. In many countries, policymakers cite rural development objectives as a major reason for general as well as some specific agricultural policy interventions which provide support and protection to agricultural production. Yet, rural development is largely undefined, as is the contribution that agriculture is supposed to make to it. It is affirmed that agriculture is the core of the rural economy and a major source of employment despite evidence to the contrary in all but a few exceptional regions of the OECD. It is often simply assumed that measures which keep people and land in farming are good for rural development but neither hypothesis is tested. We do not know if the measures in question keep agriculture in rural areas, or, if they do, if that is a good thing for rural development. Finally, in the whole area of positive and negative externalities of agricultural production there are severe gaps in the necessary evidence base to make sure that policies are targeted where they are needed and tailored to identified needs, yet externalities are often cited as the raison d’être for particular measures. Such policies are rarely subject to tough design and performance tests to ensure efficiency, effectiveness and minimum cost to taxpayers.

8 Monitoring and Evaluating Agricultural Policy Performance

This brings me to the more general issue of performance evaluation. Clearly, those wishing to evaluate policy performance will be hampered by the absence of operational, quantifiable, and verifiable objectives or targets; however, there are other explanations as to why agricultural program evaluation often falls short of what would be considered best practice in other areas of public policy. One explanation relates to the cost of undertaking such evaluations among a client group that remains highly atomized in many countries. Another explanation is a reluctance to impose an unduly heavy administrative burden on small businesses already subject to complex reporting under food safety and environmental regulations. Nevertheless, in my opinion there is unused potential for governments to design program implementation in a way that generates data needed to undertake assessment and evaluation. For example, in not requiring farmers who receive the EU’s single farm payment to report on their production choices, a rare opportunity to empirically study the effects of decoupling of a policy instrument has been lost. Furthermore, we have not taken advantage of an opportunity to adjust the policy instrument, if needed, in the light of its objectives and outcomes. To improve policy evaluation in agriculture we need an institutional and cultural shift. Once these occur, the task of building in incentives to reveal the needed information or making program eligibility conditional on supplying the information will be much easier.

9 Future Challenges

The emergence of countries such as India, China, Brazil and Indonesia with enormous production or consumption potential, anticipated demographic trends that will likely bring the world population to more than 9 billion by 2050, emerging resource scarcities affecting land and water, and the as yet unknown effects of climate change will together determine the future of the global food and agricultural system (OECD, 2009f; OECD, 2008c; OECD, 2005d). As a result of the 2008/09 financial crisis, budget pressures have intensified in many OECD countries. Defining policy
frameworks and settings that will be most conducive to achieving food security under these circumstances will be a challenge. The OECD will continue to assist governments in defining the appropriate roles of markets and policies in a world that is in constant mutation. To accomplish this, the OECD will need to be increasingly inclusive by involving emerging and developing countries as well as producers and consumers in its deliberations and becoming increasingly multi-disciplinary through the involvement of scientists, lawyers and others. Moreover, political economy and institutional factors will have to be explicitly taken on board.

The past few years have been tumultuous in agricultural markets. A combination of market, policy and weather-related events caused commodity prices to soar during 2008, which put severe pressure on consumers, especially poor consumers. The global recession which followed added to consumers’ difficulties. When agricultural prices fell again in 2009, it was the turn of producers to feel disgruntled. The agricultural policy debate has since been dominated by questions about the appropriate response to extreme volatility, amidst a general assertion that volatility in coming years is likely to be greater (and implicitly more extreme) than in the past. Faced with the danger of a return to policy mechanisms that, in the past, proved to be inefficient, disruptive and very costly, the OECD and other institutions advising governments on agricultural policy could have an important role to play. This role could range from clarifying the evidence base to defining the policy problem and appropriate solutions. Questions such as: has volatility increased and why? What factors will determine future volatility? What level of volatility is “normal”? What constitutes abnormal volatility and in what circumstances is public policy intervention needed? Why is the focus almost exclusively on price volatility and on producers when it is poor consumers that suffer most in the upswings and poor producers in the downswings? Why is the focus on prices when it is producer incomes that determine their well-being and their capacity to invest? How can policies be designed to avoid crowding out individual responsibility and market instruments as well as recognize the complex interrelationships between different types of risks and different types of strategies in response? How can policy choices favoring producers to the detriment of consumers, and vice-versa, be avoided? The OECD is currently examining these questions and with its capacity to bring applied economic analysis directly to governments, it stands ready to assist in the search for appropriate policy solutions in this difficult context (OECD, 2009e).

References


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