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Farm Policy in the US and the EU: The Status of Reform and the Choices Ahead

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Abstract

The EU is preparing for further reforms to its Common Agricultural Policy (CAP) for the post-2013 period and the US Congress will be seeking to pass a new Farm Bill in 2012 during a time of increasing budgetary pressures Both the EU and the US also have extensive biofuel policies that have become a feature of farm policy. Indeed these biofuels policies have become the major form of support for certain sections of US and EU agriculture. Biofuel policies too are under scrutiny for their budgetary impact and their consistency with environmental objectives. It is therefore timely to examine farm and biofuel policy policies, to compare the constraints faced by governments on both sides of the Atlantic and to review the instruments being considered as food, farm and biofuels policies undergo a period of change.

Tight government budgets require that policymakers consider carefully policy options to ensure that domestic objectives are properly addressed. The EU budget horizon for 2014-2020 will set the parameters for spending on the CAP. But the key issues have to do with the way that the funds are spent. Should the emphasis move to programs that focus on rural development, including environmental programs, or continue to support production agriculture by offering income payments to farmers? In the US a similar debate revolves around the nature of the "safety net" that is requested by farm groups, and the balance between spending on that objective as opposed to environmental or rural development programs. This debate is being carried out in a period of unprecedented scrutiny of the Federal budget.

Policymakers must also be mindful of the possible international implications of their policies, both in terms of existing trade agreements and ongoing negotiations. The nature of the trading system for agricultural and food products has changed considerably since the mid-1990s in large part as a result of modifications to US and EU farm policies. The issue of further reform of the trade system depends crucially on the future direction of the CAP and US farm programs. The 2012 debates over farm policy on both sides of the Atlantic will be watched closely by trading partners.

EU and US policy choices will have implications for global food and agricultural production and trade, for food security and for commodity prices. In this connection the development of biofuels policy, particularly at a time of high food prices, has led to new concerns about the interaction between farm policies in the EU and US and the ability of the world food system to keep up with global income and population growth in the face of increasing resource scarcity.

This discussion paper examines how various policy approaches for agriculture and biofuels could fulfill the stated and implicit objectives of US and EU farm policy, and how policy instruments are likely to impact international objectives of the US and EU respectively. It concludes on a more prescriptive note with some proposals for policy improvement, particularly for the evolution of direct payments and the development of risk management tools for the farm sector. These should complement measures to improve competitiveness as way of meeting emerging foreign competition in domestic and overseas markets.

1. The Policy Environment

The EU is considering further reforms to its Common Agricultural Policy (CAP) for the post-2013 financial horizon. The European Commission intends to publish legislative proposals in the summer or fall of 2011. The European Council and the European Parliament will need to agree on the budget framework and the details of changes in the CAP. The US Congress has already started to engage with stakeholders on the content of a new Farm Bill, and legislation should be debated in the House and Senate in 2012. The aim is to conclude a new Farm Bill in time for farmers to make their planting decisions for the 2013 crop. So by 2013 there could be substantially different policies in place in these two giants in world agricultural markets. This paper considers what changes in policy are likely and what changes would be desirable. Some historical context is however useful before considering future options.

Farm policies in both the EU and the US are fixtures in their respective political landscapes. In the EU, the CAP policy influences the economic environment for 7.3 million commercial farms and over 6 million smallholdings (many of these in the most recent members, Romania and Bulgaria). Over 16 million people are employed in the agricultural sector, some 5.6 percent of the labor force (Eurostat). The average farm size is 22 hectares, and the total value of production is 304 billion euro (OECD, 2010). In the US the number of farms is less (2.2 million) and the average size is larger (418 acres), and the value of output is \$287 billion. Transfers under the CAP account for about 24 percent of the gross revenue from farming: in the US the comparable figure is just under 10 percent (OECD, 2010). But on each side of the Atlantic, agricultural policies are entrenched and strongly supported by those that benefit from their provisions. However, the pressures on these policies in a time of budget stringency and high commodity prices are mounting.

The CAP has been a key policy for the European Union since the 1960s. Indeed, the CAP, along with the Common External Tariff, was for some years virtually the only policy that operated at the EU level. The policy played a significant role in economic integration and provided a stable environment for the restoration of Western European agriculture. But it has always been controversial. The emphasis on protecting the internal agricultural market from competition from abroad and its tendency to cause overproduction attracted external criticism, and its tendency to absorb the lion's share of the EU's financial resources made it central to internal arguments about the distribution of costs and benefits within the Union. Controversy became more pointed after the accession of the UK (a major agricultural importer) in 1973. But despite its critics, for the first thirty years the CAP remained essentially unchanged in scope and nature. The process of reform that began in 1992 changed the situation. There has been a remarkable shift in both emphasis and instrumentality, such that the CAP of 2011 would be almost unrecognizable to the architects of European integration.

Agricultural policies in the United States have proven remarkably resilient since their introduction almost eighty years ago. Created as temporary measures to deal with a combined economic and environmental crisis in agriculture due to the Great Depression and the Dust Bowl, the central focus on price support for major crops and milk has been maintained and refined. One notable feature has been the enduring divide between "program crops" that are included in the price support programs and specialty crops that have not enjoyed the same degree of attention. Livestock markets have also been relatively free of price support, though protected by tariffs. Some shifts in instruments have taken place in the main programs: policies to restrict production have largely been abandoned and the government no longer intervenes extensively in agricultural markets. Part of the support for program crops has been replaced by direct payments. However, while modern US agriculture would be unrecognizable to a time traveler from the 1930s, the central elements of farm policy would still seem broadly familiar.

In more recent years both the US and the EU have embarked on ambitious biofuel policies that have become complements to traditional farm programs, and these too have attracted criticism. The policies have been successful in introducing plant-based fuels into the mix of energy sources for transportation. In the US this has been the result of the mandated blending of renewables (which has primarily affected ethanol derived from corn) with petroleum products, sweetened by tax credits, and with protection from imports. In Europe the use of biodiesel from domestic oilseeds such as rapeseed and overseas production of tree oils such as palm oil has been integrated into the transport sector by mandated incorporation. But the increased demand for crops used as bioenergy feedstocks, while being welcomed by farmers, has led to concerns about the impact on food prices. In particular, biofuels policy in the US has been criticized as providing a significant subsidy for diverting corn from food and feed uses, thereby increasing food prices. The EU's use of vegetable oils, though not so significant for domestic consumers, has reduced the availability of these products in areas such as the Maghreb and the Middle East, and contributed to upward price pressures.

The environment in which domestic farm policies are formed is undergoing rapid change. Consumers are taking a greater interest in the way in which food is produced and they expect farming activities to respond to their concerns. The growing demand for organic foods and pressures for higher animal welfare standards are two manifestation of this trend. Additional pressures are being exerted on farm policies as a result of environmental concerns over water use, and air and water pollution. Indeed much of the debate among farmers and politicians is on the topic of excessive regulation by such bodies as the US Environmental Protection Agency (EPA) that are not a part of the farm policy process. In addition the impact of farming activities on biodiversity has also caused concern: recent studies, for instance, have highlighted the economic costs of declining populations of bees for pollination and beneficial animals such as bats. Discouraging environmentally destructive farm practices and encouraging beneficial outcomes are issues that will increasingly enter into the debate on agricultural policies on both sides of the Atlantic.

Climate change concerns are also raising the stakes. Efforts to reduce agriculture's contribution to greenhouse gas (GHG) emissions and to mitigate emissions from other sectors are in their infancy, but are likely to become more prominent. Opportunities will exist for agriculture to contribute to the response to global warming. The use of crops for biofuel is an early harbinger of such a development: the rapid growth of the use of corn for ethanol and rapeseed for biodiesel has reflected widespread enthusiasm in both the US and the EU for renewable alternatives to fossil fuels. The value of crops and forests as a carbon sink will also be of considerable interest in the future debate on climate policy.

As significant as these non-traditional farm policy concerns are, the political environment of farm policy is still influenced by the level of world commodity prices. The downward trend of the past three decades seems to have halted, with strong demand from emerging countries and slowing productivity growth in developed country agriculture. In addition, two price spikes, in 2007-08 and again in 2010, have provided a reminder that sudden price rises can provoke concerns about food security. The politics of farm policy is different in times of high prices, when income support is less justified. And in the present case the undoubted contribution of the surge of ethanol and biodiesel production to higher commodity prices has added yet another cause for concern.

The remaining sections of the paper examine how various farm support and biofuel measures in the EU and the US are evolving, and the policy options under consideration. The paper addresses several key questions. How appropriate are the policies currently in place and those being considered for meeting the range of objectives, both explicit and less clearly stated?

What instruments are available that could help to meet objectives at a reasonable cost, keeping both domestic and international constraints in mind? What role can policies play in the broader imperative of increasing agricultural productivity to meet expanding needs for food and fiber in a way that supports rather than conflicts with sustainable development? The next section of the paper reviews some recent changes in the policies under consideration.

2. Recent Policy Developments in the EU and the US

The CAP has undergone remarkable change in the past two decades. The reforms of 1992 set in motion a steady movement away from the support of key cereal and livestock prices by means of market intervention and export subsidies to the use of direct payments, more or less divorced from current prices or output. Originally intended to facilitate the transition to lower support prices, the payments became viewed as entitlements for EU farmers, and hence paid to producers in new member states even when those countries had not experienced price decreases. Further reforms in 1999, 2003 and 2008 (see table 1) consolidated the shift away from market support and extended the use of direct payments. In 1999 (the Agenda 2000 reform, that included budgetary as well as agricultural policy decisions) a second "pillar" of the CAP was introduced focusing on rural development. The 2003 reform introduced a Single Farm Payment Scheme (SPS) that consolidated payments made previously on the basis of commodity output. In addition, individual commodity "common marketing organizations" were revised over the subsequent three years and eventually consolidated under a single piece of legislation. The Health Check reform in 2008 further decoupled support from production, as well as ending set-aside requirements, and placed additional limits on market intervention. It entailed the removal of most intervention prices (rice, barley, maize and in effect beef and sugar beet) and set the date of April 2015 for the phased elimination of milk guotas. These reforms have resulted in a policy that is radically different from that of the 1980s. The current policy is now consolidated around the two "pillars", the first covering programs supporting farm incomes and stabilizing markets and the second dealing with rural development, including environmental programs.

Despite general continuity in the broad objectives that have underlain US commodity programs since the 1930s—the provision of price and income support for major parts of US agriculture—there have been some significant changes in instruments in recent years. A series of farm bills that sought to reduce the incentive to increase production of program crops (and government purchases of surpluses that could not be sold on the market at supported prices) culminated in the introduction of fully decoupled payments (Production Flexibility Contract payments) in the 1996 Act. Following sharp declines in prices during the life of the 1996 Act, the 2002 Act saw the introduction of countercyclical payments in which support for eligible farmers varies inversely with variations in commodity prices over a given price range, though it is not linked to the current volume of production. The most recent Farm Act (2008) saw the introduction of an optional revenue stabilization program (ACRE) that was intended to offset the impact of variations in both prices and production of major program crops at the farm level. There is already much discussion of the type of "safety net" policies that will be required in the future to address fluctuations (primarily downward) in prices or incomes. This issue is discussed in more detail below. Table 2 shows a summary of the instruments presently operative in the 2008 Farm Bill.

Rural development policies focus on improving competitiveness (including payments for quality improvement and farm restructuring), improving the environment (including climate change mitigation); and improving the quality of rural life (through the renovation of villages, the diversification of production, and development of skills for local development strategies). In practice, pillar 2 support goes largely for the modernization of agriculture in new member states and for environmental objectives in old member states.

There are strong similarities between recent farm policy developments in the US and the EU, but also some important differences. Both the US and EU struggled for decades with trying to control the costs of acquiring surplus products to support prices, but this issue has now largely been resolved. The EU, by reducing cereal and most livestock support prices to world price levels, has relieved itself of the burden of costly export subsidies. These are now largely confined to dairy products at times of low prices. The US has also abandoned the policy of buying products to support market prices (with the occasional exception of dairy products) and rarely uses export subsidies. But both the US and the EU are still searching for a stable and politically acceptable alternative to commodity-linked support to maintain a (politically) acceptable level of farm incomes.

In the EU the introduction of direct payments in the 1992 CAP reform was instrumental in freeing up markets for cereals and oilseeds and reducing the burden of surpluses. The US introduced direct payments in the 1970s and these were tied to supply control. In the 1996 Farm Bill the US decoupled those payments from supply limitations and consolidated them across the program commodities (principally corn, wheat, soybeans, cotton and rice). By 1999 the EU had begun to move in a similar direction, with payments originally made to compensate for price decreases taking on the form of entitlements. The US partly reversed the trend towards decoupling when it revived price-linked payments in the 2002 Farm Bill, and the 2008 Farm Bill continued those payments.

The main issues in the current policy debate in the US and the EU revolve around the future direction of price-linked payments. Will the EU continue to rely on direct payments that are no longer based on the production of particular commodities (the SPS) and phase out support for commodity prices? And will the US maintain the direct payments that provide income support in both good years and bad, or move towards programs that aim to help only when incomes and prices are low? These questions are at the heart of current deliberations on farm policy in the EU and the US.

The ultimate constraint on a change in farm policy is its acceptability to major stakeholders within the limitations of available funds. As the number of stakeholders increases, as has happened for both EU and US farm policies in the past two decades, it becomes more difficult to reach a decision that is satisfactory to all. And accountability, as the ex-post counterpart to acceptability, also becomes more complex. But in the EU, as a result of its mix of supranational and intergovernmental institutions, the issues of acceptability and accountability take on a different form. The distribution of funds from the EU budget depends on the nature of the policy details and this adds another dimension to the decision process. And the expansion to 27 member states has made such budget related processes even more contentious.

3. The Current EU Policy Debate

The European Union is in the midst of a political debate about the future of the Common Agricultural Policy (CAP). Such a review is prompted by the need to agree on a funding level for agriculture over the EU's next budget horizon, 2014-20. The European Commission has issued a Communication (The CAP Toward 2020) that seeks to lay out the issues facing the EU in the field of agricultural and rural development policy. This document will be followed by another giving the views of the European Parliament and eventually by legislative proposals from the Commission in the summer or fall of 2011, with final agreement by member states anticipated by the end of 2013. The proposals are likely to be evolutionary rather than revolutionary, but they will still mark an important step in EU policy response to the changing political and economic environment.

The fundamental issue facing policy makers is how to manage the two-pillar structure of the CAP in the face of competing demands for available funds. Is the farm support pillar a permanent feature, devoted to maintaining capacity in EU agriculture, stimulating productivity and stabilizing markets? Or is it a relic of past intervention in commodity markets that proved costly and ineffective? Is the rural development pillar to be the main focus for the future, combining environmental and climate change policy with social cohesion and rural viability? Or is this primarily a vehicle for shifting some funds to poorer areas of the EU27, particularly to the twelve new members (often referred to as the EU12)? The importance of the budget debate is that it will set the scene for whatever shape the CAP is to take in subsequent legislation.

Central to this question is the political justification of direct payments. As Tangermann wrote in *AgraEurope*:

The new farm Commissioner Dacian Ciolos is on record as having stated his belief in the need to maintain direct payments. He, and the whole agricultural policy establishment in Europe, will then have to come up with a credible justification for that part of the payments that is to be maintained in the future. Unless this justification is fully credible, it will not be politically sustainable. And if it is not politically sustainable, it will not stick, and then the uncertainty among farmers will persist. But policy uncertainty is just about the worst thing one can inflict on a sector whose health so much depends on long-term planning (Tangermann, 2010).

However, in political terms, the SPS may be impossible to eliminate even if no rationale is found for its continuation. If so, most of the proposals, including those of the Commission, are ways of making the best of a situation in which nobody expects the payments to be discontinued. The Commission's attempts to address environmental and social issues can be seen as a way of at least getting some public benefits from these payments.

A number of other issues surround this central question. In several respects the CAP has become an environmental as well as an agricultural policy. The changes enacted in 1999 (the Agenda 2000 reform) introduced the notion of cross-compliance in which environmental rules are specified as a condition for receiving direct payments. Though one could make the case that environmental objectives could stand on their own (and apply to all farmers regardless of whether they receive payments), the political cover proved useful. How much longer the attempt to justify direct payments as a reward for environmental stewardship will last is unclear. It is not obvious that the current policy approach satisfies basic criteria for effective environmental policy, such as targeting and ensuring compliance, and some farmers have chosen to avoid the restrictions of cross-compliance by not receiving direct payments.

Attached somewhat loosely to the CAP are the EU's food safety and quality policies. These have also been evolving rapidly over the past decade. For many, the link between farm policy decisions and food safety and quality is an important aspect of the policy. Food safety as a desirable objective has been expanded by both legislative action and pressure from consumer and environmental groups to include a broader range of attributes such as organic farming and animal welfare. The boundary between food safety and food quality has been blurred further by the activity of food retailers who have both responded to consumer concerns and attempted to use these to increase sales of higher-value products (Josling, 2011). Indeed private sector food standards now overtly use claimed health benefits to attract customers even though food safety is the province of public standards applying to all sales. Safety and quality attributes are marketed as a package, with the consumer left to figure out the division of responsibilities between public agencies and private firms.

Though a holistic view of farming as a part of a high quality food chain is appealing, it presents policy challenges. How far should public regulation go, for instance, in promoting organic foods? When does the pursuit of imprecise notions of animal rights place intolerable burdens on farmers through animal welfare standards? And to what extent can the argument be made that payments to farmers are part of an implicit contract for safe food?

The high world food prices of the past four years have added another dimension to the debate on the CAP. What role does EU agriculture play in providing food security at home and abroad? The European Commission is on record as citing domestic food security as a justification for the CAP, even promoting it as a theme for the future (post-2013) policy. In the communication on the "CAP towards 2020" (EC, 2010) the Commission argues that the CAP is useful "to guarantee long-term food security for European citizens". It is difficult to conceive of a credible threat to food security in the EU other than through mass destruction of production capacity and infrastructure. Given the low level of risk, whether the additional cost of maintaining a high level of production is merited is for politicians to judge.

The same might be said for the notion that EU productive capacity, even at high cost, should be maintained to benefit global food security. It is difficult to argue that such an insurance policy taken out in the name of food importing developing countries is worth the cost of the premium involved. The alternative would be to assist those countries with investment in their agriculture and food system infrastructure, including domestic food security programs, and avoid the high cost of producing in a region where land and water are scarce, wages are high, and environmental problems abound. If food prices do indeed remain high then that should reduce rather than increase the need for price support for EU agriculture, including support through import tariffs. It could, however, be a reason to shift expenditure on the CAP towards research and development, rather than price and income support.

EU Biofuels Policy

EU biofuels policy has evolved over the years from modest support for ethanol production as an agricultural by-product to the elaboration of mandates for renewable fuels (Swinbank, 2009). By 1997, the EU Commission was contemplating the prospect of doubling the contribution of renewable energy to 12 percent of domestic use. An EU Biofuels Directive was proposed by the European Commission in 2003 and a European Strategy for Biofuels was adopted in that year (Banse et al., 2008). A specific "energy crops scheme" was introduced in 2003 that provided per acre subsidies, though this was removed in 2010. Several member states have introduced their own schemes for expanding biofuel use in the context of renewable energy programs.

The EU passed legislation in 2008 that mandated the use of biofuels in the transportation sector. As a part of a "Climate Change Package", the Directive for Renewable Energy (RED) of 2009 established an EU-wide binding target of 10 percent of transport energy from renewable sources by 2020 (EU 2009), along with a requirement that 20 percent of all energy come from renewable sources (up from 8 percent in 2009). Implementation is in the hands of member states, many of which have legislation in place to achieve these levels. In the United Kingdom, for example, electricity suppliers must source a specified proportion of their supplies from renewable sources or pay a penalty (the "buy-out" price), creating a financial incentive (borne by the consumer) to generate electricity from renewable sources.

In 2009, through Directive 2009/28/EC on the promotion of the use of energy from renewable sources (the RED), the EU adopted targets for a 20% overall share of renewable energy by 2020, and a 10% share for renewable energy in the transport sector. While previous targets were only indicative, these targets are mandatory. At the same time, through Directive 2009/30/EC ("the Fuel Quality Directive") the EU adopted a mandatory target of a 6% reduction in the greenhouse gas intensity of fuels used in transport by 2020.

A similar situation exists in France, where oil companies pay a high gasoline tax if they do not use the amount of biofuels indicated by the mandate.

Subsidies that aid specific sectors must be notified to the appropriate committee by WTO members. The latest European Union notification to the Subsidies and Countervailing Measures Committee for 2007-2008 was submitted on 23 December 2009, with some additional coverage of programs not addressed in 2005 and 2006. The notification includes regional development and CAP programs: it presumably includes some elements of biofuel-related support under the CAP's Pillar 2. However, the nature of the notification is such that a full accounting of what is included is not possible. The only specific notification relating to biofuel is the Energy Crops Scheme, with expenditures of €13.5 million in 2004 and €54 million in 2006. The subsequent notification mentions the amount (45 euro per hectare) in 2007 and 2008 but not the total cost. Payments under the energy crops scheme are also reported in the agricultural notification for those years (Josling, Blandford and Early, 2010). Payments under the scheme were reported under a broad heading in the Blue Box of quantity-limited subsidies that included other cereals and oilseed payments. The EU no longer provides specific aid for energy crops. Support under national aids for the production of ethyl alcohol from agricultural feedstocks has been consistently reported: the amount peaked at 155 million euro in 1995/96 and was notified as 80 million euro in 2006/07. No specific notifications were made relating to wine distillation subsidies (Josling, Blandford and Earley, 2010).

Though the EU has encouraged the use of biomass for renewable energy production, in particular with the target of 10 percent of transport fuel in each member state under the RED, the use of biofuel (liquid or gas) in transport, implementation is largely left to the member states. They can grant subsidies for on-farm investments in bioenergy under the so-called Second Pillar of the CAP (anaerobic digesters, establishment grants for planting *Miscanthus*, etc.) and these are notified to the WTO as green box payments. However, the main schemes for encouraging the up-take of biomass for energy purposes are not reported as agricultural subsidies by the EU. Swinbank (2009) argues that the schemes are not required to be notified under the Agreement on Agriculture, but concludes that if the support involved were to be included in the amber box it could account for about 16 percent of the EU's ceiling on the Total AMS.

A major guestion pending in Europe is how to account for Indirect Land Use Changes (ILUC) in the methodology that defines acceptable biofuels—those whose production yields a desired net reduction in carbon emissions. The EU RED and the Fuel Quality Directive required the European Commission to compile a report "reviewing the impact of indirect land-use change on greenhouse gas emissions" and to seek ways to minimize it. The report would be accompanied by proposals for a concrete methodology for calculating indirect land-use change, which could be applied to other commodities. The Commission has so far relied on the work undertaken by IFPRI and INRA as well as the Commission's Joint Research Center. The Commission released its report in December 2010, in which it "recognises that a number of deficiencies and uncertainties associated with the modeling, which is required to estimate the impacts, remain to be addressed, which could significantly impact on the results of the analytical work carried out to date." The Commission indicates that it will "continue to conduct work in this area in order to ensure that policy decisions are based on the best available science and to meet its future reporting obligations on this matter". The Commission planned to present the Impact Assessment, together with a legislative proposal for amending the Renewable Energy Directive and the Fuel Quality Directive as necessary, by no later than July 2011, but to date this has not been presented.

Considerable uncertainty persists on both the methodology and the equivalent in GHG emission of

the ILUC effect of EU bioethanol and biodiesel (Edwards et al. 2010). Given the financial interests at stake, no quick decision can be made. However, the recent studies suggest that if one counts ILUCs, EU rapeseed and sunflower will have a hard time satisfying the required minimum EU threshold for emission reductions under the mandate (Al Riffai et al. 2010, Edwards et al. 2010). Such a finding could have major implications: it could lead to the exclusion of most EU biodiesel production from counting towards the ten percent target if the products were unable to pass the bar. Ethanol production is not necessarily sheltered either, even though there are more limited ILUC effects. For sugar beet this is due to high yield per hectare, and for wheat ethanol, even though its production is currently declining, the replacement of other animal feedstuffs by its byproducts. Rapeseed oil producers claim that this is also the case for biodiesel, and that the rapeseed cake should generate a negative ILUC factor, offsetting changes in land use elsewhere but this argument is contested by environmental groups. Some of these groups, including Transport and Environment and Friends of the Earth, sued the Commission in 2010 for failing to release studies investigating the impact on biofuels on the environment. The ILUC issue might cause a serious dent to the EU biofuel support policy, which is now the EU policy that affects agricultural markets to the greater extent, given that most of the CAP traditional market support instruments have been dismantled and that most direct payments have become decoupled from production. However, the ILUC threat to the EU biodiesel industry appeared to become more remote with the July 2011 Commission announcement approving seven voluntary schemes for certifying the sustainability of locally produced and imported biofuels. The approval relied on commitments for inspection and control that the supply of biofuel will meet sustainability criteria outlined in the RED for the next five years. These commitments, however, do not include ILUC (only direct land use changes), which means that ILUC consideration are not expected to have concrete impacts until 2017.

4. The Current US Policy Debate

The current agricultural policy debate in the US focuses primarily on the nature of the "safety net" for US farmers, and the re-instrumentation of programs to live within budget constraints. As with many terms in political use, "safety net" can have differing interpretations. The Obama administration (among other political actors) has emphasized the importance of measures that will "make sure that we can deal with any contingencies that may arise as a result of weather or poor prices" (USDA, 2011). This seems to imply that the safety net only comes in to play in the event of unforeseen events such as the impact of poor weather on crop production. But the concept is more widely interpreted by many farm groups as one of providing protection against conditions that may not be so transitory, such as a period of depressed commodity prices. Since the Great Depression of the 1930s the United States has gone through several extended periods of low agricultural prices, the most recent being in 1998-2002, so such a safety net might be in operation for several years rather than for a single crop year. In the current debate on the future of farm programs in the United States there is, however, little discussion of long-term income support as the primary safety net objective. This is not surprising when aggregate farm income is high as a result of strong prices for the main crops: there could be scant political support for such a suggestion.

Much of the current policy debate centers on the cost to the federal government of farm programs. It is abundantly clear from statements by the Administration, Congress and farmers' representatives that budgetary constraints will be the major factor shaping the new farm bill. The budgetary debate for agriculture is made more relevant by the political imperative of reducing the deficit in the federal budget, currently averaging around 9 percent of GDP, and by the fact that net farm income is at record levels. Estimates from the Economic Research Service of USDA are that net farm income will be around \$95 billion in 2011—20 percent higher than in 2010. Adjusted for inflation, that would be the second highest value in the last 35 years, being surpassed

only during the commodity boom of 1974. With high prices for agricultural commodities there will be considerable pressure on legislators to reduce the level of support or to realign expenditures to meet changing priorities.

Current US commodity programs are comprised of a mixture of instruments, including direct income supports, price supports, and price-linked payments, in addition to various insurance schemes (current programs and future options are discussed in more detail below). While the complete elimination of many of these programs is unlikely—once introduced, farm programs tend to have remarkable staying power—the debate centers on the balance of emphasis among them. A divergence of opinion is already apparent on whether reductions should be made in fixed direct payments in order to accommodate a reduction in the overall budget for commodity support, or to reallocate funds to other programs. An even more radical idea is to shift funding away from price and income support towards insurance programs, which would clearly place the emphasis on the safety net as a risk management concept.

High prices since 2007 have begun to make an impression on the Farm Bill debate. The term "food security" is being used by some (as in the EU) to justify maintaining productive capacity in agriculture and avoiding the diversion of land to conservation uses. Like the safety net concept, food security is a term that can mean different things to different people. In some quarters the emphasis is on the safety of the food supply in terms of human health, but others stress perceived risks to the availability of food. Few would argue that one of the world's major agricultural exporters actually runs the risk of having insufficient supplies of food to meet the physical needs of the population—although some legislators appear to suggest that this could be an issue. On the other hand, food security, in the sense of being able to satisfy the growing demand for agricultural products for food and energy use at "reasonable prices", has considerable resonance, particularly as food prices in the United States have entered a second high price period within the space of four years. With up to 40 percent of this year's corn crop likely to be used for bioethanol production (see below), pressures from continued high demand for US food exports in many emerging economies such as China, upward pressure on prices due to higher energy costs, and an export-stimulating weak dollar due to expansionary monetary and fiscal policies, the issue of high food prices in the United States could become a significant factor in the debate on the 2012 farm bill.

The number and scope of environmental programs in the farm bill has expanded substantially since environmental provisions became important in the 1985 Act.³ As environmental issues have become more prominent and environmental groups have become increasingly politically active, the debate on environmental provisions in the farm bill has intensified. Farmers have largely been content to go along with environmental programs because many are based on the provision of incentives for improving environmental performance, rather than penalties to discourage environmental damage. However, strains are emerging in the environmental/commodity coalition because of the impact of higher commodity prices and bioenergy policies. Higher commodity prices make it less financially attractive for farmers to participate in key environmental programs. For example, the size of payments necessary to induce farmers to take environmentally sensitive land out of production under the CRP increases as the opportunity cost of land rises. Hellerstein (2010) estimates that achieving a 30 million acre signup under a continuation of the commodity prices seen in 2008 (similar to the current situation) could roughly triple the cost of the current program, from around \$1 billion to \$3 billion. In the light of increasing demand for bioenergy feedstocks some farm groups are arguing that they should be allowed

³ Environmental programs for US agriculture date back to the 1930s when various soil conservation measures were introduced in the wake of the Dust Bowl. Conservation objectives were invoked in the context of set-asides and land retirement programs from the 1950s onwards. The 1981 Act was the first to contain an explicit title for conservation programs. However, the origin of the more comprehensive set of environmental programs in existence today dates from the 1985 Act.

to take land out of the CRP before current contracts terminate so that they can take advantage of higher prices. Such pressure could intensify if the production of ethanol from cellulosic sources (rather than corn) expands significantly since this could increase the demand for crops grown on marginal land, such as that enrolled in the CRP. Other conservation programs, such as the Environmental Quality Incentives Program (EQIP), which provides incentives for environmental improvements on land in agricultural production, have already been the target of budget reductions since the signing of the 2008 bill. With budgetary stringency there is likely to be less money available for incentive-based environmental programs, which have formed the cornerstone of policy in this area.

Domestic food assistance programs are the largest element of expenditure in the farm bill and an important element in attracting legislative support from urban interests. The programs have become an ever-increasing part of the expenditure picture. Projected spending under the Supplemental Nutrition Assistance Program (SNAP) (formerly the Food Stamp Program) is over \$75 billion for FY2011; more than \$17 billion is projected for expenditure on child nutrition programs (school lunch and breakfast programs etc.). The pattern of increased demand for resources for nutrition programs appears likely to continue, unless eligibility rules for beneficiaries or operating rules for these programs are changed or there is a general move to reduce Federal spending on social programs as part of deficit reduction measures.⁴

Although climate change has been generating considerable debate internationally it is unlikely to figure significantly in the 2012 farm bill. Farm groups have been critical of efforts to pass legislation that would create a price for carbon through emissions trading in the United States (even though is not proposed to include agriculture in the cap on emissions). Farmers have been rather more open to the idea that they should be able to claim credits for carbon offset activities (e.g., sequestration). With a shift in the balance of power from the Democrats to the Republicans in the Congress through the midterm elections of 2010, climate change issues are very much sidelined in terms of new legislation. In fact the emphasis has turned towards efforts to limit the ability of the EPA to regulate GHG emissions. In the farm bill debate there could be attempts to move some of the existing environmental programs such as EQIP or CRP in a more "climate friendly" direction, but, as noted earlier, the future viability of the CRP is under threat due to higher commodity prices, and a reallocation of funding for EQIP (whose future funding level is already under question) makes major changes unlikely.⁵

Provisions relating to agricultural research and development (R&D) are contained in the farm bill. However, expenditures in these areas are a relatively small part of US total research expenditures at the Federal level. USDA accounted for roughly 2 percent of the total estimated budgeted amount for research and development in FY2010 compared to 63 percent for the Department of Defense (CRS, 2010). Agencies other than USDA provide funds for public research on issues relating to agriculture (broadly defined) for example, diet and health. In 2005, 72 percent of all public agricultural R&D expenditures were through state level institutions, the balance was at USDA agencies. Federal funding accounted for roughly 40 percent of the state total, with roughly half of that from USDA and the rest from other federal agencies. The balance came from state appropriations and industry sources.⁶ In real terms public R&D funding for agriculture (again broadly defined) was roughly the same in 2008 as at the beginning of the current millennium.

The Obama administration has placed considerable stress on the importance of investing in R&D for

The higher unemployment rate since the financial crisis of 2007/08 has undoubtedly contributed to increased expenditure under the food assistance programs, but expenditure was already rising prior to the crisis when the unemployment rate was relatively low.

There is a certain inconsistency between paying blenders for fulfilling the mandate on biofuels incorporation while reducing programs such as the Conservations Reserve Program (CRP) that have an environmentally positive impact.

⁶ Based on information from Economic Research Service (USDA) Briefing Room on Agricultural Research and Productivity (accessed April 10, 2011).

the future economic and social well-being of the United States. Particular emphasis is being placed on the physical sciences and engineering. Less than 3 percent of GDP is currently devoted to R&D in the United States and the agricultural portion is very small. In addition, funding for agricultural R&D is under considerable pressure. As noted above, state appropriations are an important source of resources. Many States are facing large budget deficits and there are major pressures to reduce appropriations for agricultural research and extension. It is difficult to believe that whatever R&D provisions are included in the farm bill, they will make up for likely future reductions in funding at the state level during the life of the next Act. Indeed, funding for R&D may be reduced. Although farm groups are well aware of the potential contribution that research and development can make to competitiveness and to future profitability, the protection of resources for R&D is likely to be assigned a lower priority than funding for commodity support, since the latter has a more immediate impact on a farmer's bottom line.

US Biofuels Policy

The primary focus on renewable energy in the United States has been on the development of biofuels. So-called first generation biofuels dominate, primarily ethanol derived from corn. It is estimated that roughly 40 percent of the corn produced in the United States this year will be used for bioethanol. The 2002 farm bill was the first to include an explicit energy title, which authorized grants, loans and loan guarantees for research, development and adoption of agriculture-based renewable energy. Since that time, the debate on ethanol has focused primarily on the provision of subsidies for blending ethanol with gasoline, the application of a high supplementary tariff on imported ethanol, and the impact of using corn for ethanol production on commodity prices and inflation. In the farm bill itself only certain aspects of biofuels policy are covered. Other important provisions are in the energy legislation. The Energy Policy Act of 2005 introduced mandates for the use of renewables in transportation fuel. The mandated quantities were expanded substantially under the Energy Independence and Security Act (EISA) of 2007.

Much of the political support for renewable energy provisions in the farm bill has been driven by the intersection of traditional commodity interests with those concerned about energy security. Biofuels policies have primarily benefited corn producers—who are heavily concentrated in the Midwest and have considerable influence on commodity program legislation. They have been eager to ensure that the use of corn bioethanol is not penalized by unfavorable calculations of indirect land use effects that reduce the net contribution of these fuels to greenhouse gas (GHG) emission reductions. It seems unlikely that the farm bill focus on energy provisions would have been so strong if the primary feedstock for the development of biofuels had been cellulosic or oil-bearing crops produced on marginal land or forest biomass.

In the 2012 farm bill debate considerable attention could be directed to the energy provisions, particularly if food prices remain high. For those interested in a continuation of programs for renewable energy from agriculture the risk is that these will be portrayed as the primary cause of high food prices (even

At present the requirement for biofuels to meet the mandate is that it saves 20 percent of emissions relative to fossil fuels. Both the California Environmental Protection Agency (CEPA) and the US Environmental Protection Agency (EPA) released some life cycle analyses including ILUC that showed that US corn ethanol did not pass the bar. This triggered intense lobbying activity by corn and ethanol producers. A group of US Senators was harshly critical of the methodology used in the EPA's 2009 draft Regulatory Impact Analysis, with particular focus on the ILUC calculation, claiming that it understated the potential benefits of bioethanol. A bipartisan group led by Senators Harkin and Grassley called on the EPA to refrain from premature ethanol emission regulation. In 2010 the EPA released new figures, in which ethanol from corn produced by recent plants using natural gas rather than coal, has been found to save 21 percent of emissions, and thus passes the ILUC test. Older plants benefit from "grandfathering" and even though they do not reach the bar they seem to face little threat from any new requirements on net emission reductions. The new EPA figures have contributed to making the ILUC debate much less of a threat for the U.S ethanol industry than it is for the EU biodiesel industry, even though there are still voices, namely in the livestock and animal feed sector, that question the 21 percent reduction figure. Indeed it is a remarkable coincidence that this figure is just above a threshold that bears large financial implications.

though this might not actually be the case). The production of corn ethanol has expanded considerably. Technical limitations in the vehicle fleet are making it difficult to absorb all the production domestically and there is increasing pressure to export ethanol or blended fuels (see Yano et al., 2010).

Mandates under the Renewable Fuel Standard (RFS) in EISA foresee a substantial increase in biofuel production from cellulosic sources. The mandate of 100 million gallons in 2010 (which was not enforced because of insufficient supplies) is scheduled to increase to 16 billion gallons by 2022. There is considerable doubt as to whether this will actually be achievable because of technical challenges and a lack of commercial viability. There could be some support for an expanded focus on cellulosic biofuels in the 2012 farm bill, since one of the potential feedstocks is agricultural waste, such as corn stover, rice straw, cotton gin trash and bagasse, creating the potential for additional revenues for commodity groups without necessarily contributing further to pressures on food prices. However, some studies suggest that a major part of the potential for cellulosic energy production is on marginal agricultural land and from forest land outside the traditional areas in which commodity program payments have been centered (e.g., National Academy of Sciences, 2009). Groups with an interest in those sources have not traditionally had a strong voice in the farm bill debate and their use may face opposition from other interest groups, such as environmentalists.

5. Objectives and Constraints of Farm Policy

The discussion of current issues above indicates that farm policy is subject to a number of driving forces, articulated by numerous groups participating in the policy process. To get a clearer idea of the objectives that have been set for farm policy and the constraints under which policy is made, it is useful to examine in more detail the legislative and political framework under which the policies operate.

Objectives of Policy

The EU has a relatively inflexible legal structure for policy-making in contrast to that of the US. This has proven necessary for enacting legislation for twenty-seven member states, each with their own constraints and desires. It also leads to a more coherent policy in the EU, both at home and with respect to trade. The areas of competence for the EU institutions are defined in the treaties under which it operates. The legal basis for EU legislation in agriculture derives from the obligations laid down for a Common Agricultural Policy in Article 39 of the Rome Treaty. This also specified a set of objectives. Farmers are to be helped to earn a comparable income to those in other sectors through productivity increases and consumers are to be assured a stable source of reasonably-priced foods. But the type of policy that is needed to meet these aims has changed significantly over time. EU agriculture (particularly in the EU15) is now highly productive and modern, with needs more akin to other businesses (access to capital, transparent regulations, modern infrastructure, etc.) than to a backward sector in need of guaranteed prices. Indeed, the objectives themselves tend now to be phrased in terms of improving the "competitiveness" of EU farmers and maintaining the "viability" of rural areas, together with the adequate provision of farm products and public goods. The requirement to contribute to alternative energy supplies has added the promotion of biofuels to policy objectives.

Environmental pressures have become increasingly prominent in the list of desirable outputs from EU farm policy. The widespread concern about soil and water pollution, as well as the fear of land abandonment and depopulation of the countryside has been reflected in policy aims. And consumers now demand more than just a reliable supply of basic foodstuffs: they expect not only a wide choice of

Subsequent treaties have preserved these objectives, albeit with changes in the numbering of the articles; the current treaty under which the EU operates (the Lisbon Treaty) coincidentally reverts to the original numbering for the responsibility for the CAP. The Lisbon Treaty has granted additional responsibility to the European Parliament in matters relating to agricultural policy and to trade policy.

safe food but also a number of other attributes that reflect societal values (such as animal welfare and environmental sensitivity). The present CAP, and related legislation dealing with food safety and quality, responds to a much wider array of stakeholders than the original policy. The focus on commodity prices and farm income has been replaced by a broader view of a European food system. EU agriculture is expected to produce more than food: farmers are seen as stewards of the rural environment and contributors to aesthetic and recreational needs.

The European Commission, in making the case for continuation of support for agriculture over the next decade, groups policy demands under three headings: viable food production, sustainable management of natural resources, and balanced territorial development. The first of these includes food security, the mitigation of price variability and the prevention of economic crises. The policy response is to be through maintaining the level of farm income and its stability, improving competitiveness, and compensating areas that have "natural constraints". Under the heading of natural resources the Commission includes greenhouse gas emission, soil depletion, water and air quality and the encouragement of biodiversity. Policy response is in terms of supplying public goods, promoting "green growth" through innovation and assisting with climate change adaptation and mitigation. The third demand is expressed as territorial challenges, and includes maintaining the viability of rural areas and the diversity of agriculture in the EU27. The policy response is to encourage such diversity. This grouping of objectives and policies enables the Commission to consider alternative policies in a systematic way, though obviously leaving open the balance between the three policy demands.

The legislation that supports farm programs in the United States does not identify any overall objectives. The current farm bill—the Food, Conservation and Energy Act of 2008—merely states that its purpose is "to provide for the continuation of agricultural programs through fiscal year 2010, and for other purposes" (US Congress, 2008). The candor is refreshing. However, some specific objectives are identified in the legislation, primarily with respect to conservation and rural development programs. The nature of US policy-making does not lend itself to the listing of challenges and responses by the Administration: Farm Bills are generally written in Congress, and reflect concerns relayed directly by constituents and supporters. But farm, consumer and environmental groups have clear objectives that do not differ in the main from those in the EU. What may be different is the level of access to policy makers and the amount of political weight that can be applied to achieve objectives. So the relevant issues revolve around the constraints, both through the budget and political structures.

Budget Constraints on EU Policy

The dominant constraint on farm policy on both sides of the Atlantic at present is the availability of funds. The situation in the EU reflects decisions made in earlier times on the proportion of available funds that can be used for agriculture. Expenditure on the Common Agricultural Policy has been remarkably stable since 1991, at around 50 billion euro (in 2007 prices), in spite of an increase in the EU membership from 12 to 27 states over that period (see figure 1). This stability hides a significant shift in the way that the budget has been apportioned between elements of the CAP. The direct payments introduced in 1992 accounted for about 10 billion euro (in 2007 prices); by 2008 they had reached 36 billion euro. Market price support declined over that period from 23 billion euro to 4 billion euro and export subsidies fell from 13 billion to 1 billion euro. Meanwhile spending on rural development rose only modestly from 5 billion to 9 billion euro, despite the launching of the second pillar in 1999.

As a consequence of the relative stability of total CAP expenditure, the share of the EU budget devoted to agriculture had fallen to 41 percent in 2011 compared to more than 70 percent in the mid-eighties. The agricultural part of the budget is split into two Funds, the European Agricultural Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD). The Budget framework

for 2007-2013 allocated 370 billion euro to "the conservation and management of natural resources" (Heading 2) of which agricultural spending under the EAGF and the EAFRD is the largest part. The Commission has proposed that the new 2014-2020 financial framework contain 382 billion euro for this heading, though 4.7 billion euro for food safety and food assistance has been transferred to other headings (European Commission, 2011). The framework has yet to be agreed, but would set limits on the spending on the CAP. The annual budget presented by the Commission to the two "arms" of the budget authority (the Council and the European Parliament) has to be based on this financial framework, with adjustments for inflation. There is limited flexibility within budget headings, but moving funds from one heading to another would require a major political decision.

Funds for EU programs, such as the CAP, come from the EU's "Own Resources" made up of payments from Member States on the basis of a VAT contribution (the yield from a notional uniform value-added tax), a share of Gross National Income (GNI, modified by some corrective factors) and revenue from customs duties and other such levies. The total expenditure on EU programs amounts to just over 1 percent of Community-wide GNI. Since 1987, there has been a strict limit on the proportion of GNI that can be spent on such programs (currently 1.23 percent) and the system of multiannual financial frameworks was developed to give effect to these constraints.¹¹ This has been successful in both limiting the total budget and keeping CAP spending under control.

The various positions of the member states in the ongoing budget debate follow with some exceptions the fault lines of national interest. States that contribute to the budget more than they receive naturally seek a small increase in the budget ceiling, though Germany, the leading contributor, is not among the spending "hawks". Poorer members will typically request more funding for EU programs with a redistributive function. Those that have large but less productive agricultural populations tend to favor a more permissive budget allocation. Those with more efficient agricultural industries will be more concerned about ancillary services than price support and market intervention. In more practical terms, the UK, Germany France, Finland and the Netherlands have already indicated that they would like to see a budget increase of no more than the rate of inflation. Poland, among other countries, has argued instead for spending that keeps pace with EU economic growth. The main concern of Poland and some other EU12 countries is that the cohesion funds, including those under pillar 2 of the CAP will be squeezed if no real increase in the budget is allowed.

The current CAP budget, where the largest component (pillar 1) is 100 percent financed by the EU, while pillar 2 measures require national co-financing (between 10 to 50 percent depending on the measures and regions), is unsatisfactory. This arrangement encourages member states to develop a strong political preference for the first CAP pillar. This bias hampers the development of an agricultural policy that is more focused on public goods and positive externalities, i.e. the issues that are seen by economists as driving a sound public policy for the sector. In addition, the most cash strapped member states are also those where measures under pillar 2, historically weak (e.g. the low level of agri-environmental programs in Greece or Portugal), will be sacrificed even more due to the effects of the economic crisis on national budgets.

Solving this major dysfunction of the CAP runs into political constraints. One solution would be to fund both pillars at the same rate (the idea that pillar 2 should be funded by the EU to a greater extent is

⁹ Expenditure on the Common Fisheries Policy is also included under this Heading.

The Multiannual Financial Framework is Under the 2007-2013 framework the amount was agreed in real terms and the Commission canhas maked adjustments for inflation on an annual basis.

The Commission Proposal on the 2014-2020 framework also contains suggestions on changes in the system of "own resources" that would replace the share of GNI with revenue from a new transactions tax and a revised VAT. The Budget commitments under the Commission's proposal would total 1.11 percent of GNI over the period of the new framework (European Commission, 2011).

consistent with the fact that transnational public goods and externalities exist). But 100 percent EU funding for pillar 2 would clearly lead to a considerable moral hazard problem, and collusion between farmers, local and national authorities for lenient terms of reference, inspection and control in order to maximize the EU "manna". It is not a satisfactory policy option, given the fact that considerable sums of EU money are already misused by member states, the European Court of Auditors being particularly critical of the impact of some of the pillar 2 budgets. The alternative proposal would be the co-financing of pillar 1. This proposal was presented to the European Parliament in 2010 as one of the recommendations of an independent group of academics commissioned by the Parliament's agricultural committee (Bureau and Witzke, 2010). The rejection by the MEPs was widespread, in particular by those from new member states. Given the current decision making process in the EU, it is unlikely that such a proposal will pass the Council and the Parliament. Overall, the greening of pillar one is an unpalatable option for most economists who believe that targeted payments are more efficient than those that try to reach multiple purposes (Swinbank and Josling, 2012). But for the Commission, it could be a second best political compromise, given the reluctance of the member states to shift the pillar 1 budget to co-financed rural development measures, and the political opposition to making both pillars more equally co-financed.

Expenditure on biofuels subsidies in the EU has been modest by comparison with that for farming. Despite this, biodiesel has become a part of the fuel supply for the EU transport sector. Subsidies and tax breaks are administered at the member state level. These have generally been reduced recently, in particular in the UK, Germany and France. The member states apparently find it easier to pass the costs on to gasoline and diesel at the retail level. So in effect, the burden of the biofuels program now predominantly falls on the consumer.

Budget Constraints on US Farm Policy

An assessment of US budgetary issues and the extent to which these may constrain future policy choice must take into account several important factors. The farm bill is an amalgam of titles covering a range of issues, serving the interests of different constituencies. ¹² Food assistance programs, which are important in attracting the support of urban legislators for the farm bill, account for the largest proportion of total expenditures. There are also titles for rural development, environmental programs, and energy programs—each of which attracts its own supporters. At the time of its passage the overwhelming share (97 percent) of the estimated net outlays under the 2008 farm bill were under four titles: nutrition (67 percent); commodity support (15 percent), conservation (9 percent), and crop insurance (8 percent) (Monke and Johnson, 2010). Tables 3 and 4 show the breakdown of projected spending under the current Farm Bill. The 2008 Farm Act's authorizations generally expire at the end of FY2012 or with the 2012 crop year for commodity programs. Some provisions have an expiration date before the end of FY2012 (e.g., supplemental disaster assistance program) and some tax provisions that are outside the jurisdiction of the agriculture committees potentially expire early (e.g., the tariff on imported ethanol) (Monke, 2010). The passage of a farm bill requires that a "grand coalition" of interest groups with differing policy aims and objectives reach agreement on all the programs under these titles and their funding. In the context of extreme budget stringency, when significant trades-off may have to be made in funding across program areas, reaching such an agreement may prove to be particularly challenging.

The budget for the 2008 farm bill was required to be deficit neutral—within the spending baseline determined by the Congressional Budget Office; unless the Congress decides to change the rules

The terms "bill" and "act" are used interchangeably in this paper with respect to US farm legislation. Strictly speaking a bill relates to proposed legislation being considered in the Congress, while an act denotes legislation that has been agreed by both the House and the Senate and signed by the President. However, it has become common parlance for the two terms to be used interchangeably in discussions about US farm policy legislation.

this requirement will also apply to the 2012 bill. ¹³ The CBO baseline provides a projection of spending under a continuation of existing legislation. Any additional spending on agriculture either has to be offset by equivalent reductions in spending for other mandatory programs, or by raising revenues. A key element in the baseline is the assumption made about future commodity prices. The expectation of stronger crop prices than those which applied to the baseline for the 2002 Act meant that the overall budgetary envelope was reduced for the 2008 farm bill. ¹⁴ In the light of continued high commodity prices there may be a further reduction in the baseline for the 2012 bill. The CBO has recently indicated a projected annual average expenditure on commodity programs for FY2011-FY2020 under current legislation at \$14.9 billion, which is \$0.8 billion less than the average for FY2003 to FY2010 (Shields et al., 2010).

An additional budgetary consideration is that some existing programs do not have a baseline after the expiry of the current bill, because they are not assumed to continue. If these programs are to be funded they will have to be paid for through budget offsets from other programs. The Congressional Budget Office (CBO) estimates that this would require a reallocation of \$9-10 billion in spending (about 4 percent of the total cost of the 2008 bill). There are 37 provisions without baseline funding in the current Act—8 relate to energy, 5 to conservation, 5 to nutrition and 5 to horticulture and organic agriculture (Monke, 2010). Three programs (agricultural disaster assistance, Wetlands Reserve, and Biomass Crop Assistance) account for 75 percent of the unbudgeted total.

In recent farm bill debates, the challenge has been to try to reconcile the desire of competing constituencies to increase funding for their programs, while living within a constrained (and diminishing) budget envelope. If the imperative of achieving an overall reduction in the Federal budget is to be the guiding principle during the upcoming farm bill debate, the potential for conflict will be increased as constituencies try to limit any budgetary reductions for their favored parts of the legislation.

Although the farm bill covers many of the programs and expenditures that benefit farmers, it does not include all of these. The most important omission is bioenergy programs that generate increased demand for agricultural products (primarily corn) and higher prices and incomes for some farmers. Mandates and tax rebates under the Energy Act are an important revenue-generator for corn producers through their impact on prices, but an important source of additional costs for others such as livestock farmers who use corn for feed. A recent bill in the Senate called for a repeal of the tax credit for ethanol blenders and of the special tax on imported ethanol. While not directly a part of the farm bill debate, the anticipated impact of such bioenergy legislation on future prices and incomes is likely to be a part of the bigger picture. Josling, Blandford and Earley (2010), for example, have estimated that the price enhancing effect of policy measures for ethanol translates into a subsidy of roughly \$3 billion per year for US corn farmers.

An important procedural distinction is between programs for which expenditure is mandated, such as price-linked direct payments and those for which it is authorized but subject to the annual appropriations process. ¹⁶ This distinction leads to tension among constituencies, for example, environmentalists;

The Senate pay-as-you-go (PAYGO) rule requires that any proposed legislation that is projected either to increase spending or reduce revenues must include equivalent spending reductions or revenue increases so that the budget deficit is not increased over a 6 and 11-year period (see Heniff, 2010 for a detailed discussion).

For example, the March 2007 baseline projected spending on commodity support under a continuation of the 2002 Act to be about \$40 billion for the FY2008-FY2012 period, which was roughly \$30 billion lower than in the previous years because of expected higher prices (Monke and Johnson, 2010).

¹⁵ At the time of writing the House has not taken up this legislation.

Mandatory expenditures are handled by the Commodity Credit Corporation (CCC), which was specifically created to remove unpredictable funding needs from the annual Congressional appropriations process (Monke and Stubbs, 2010).

some of whose programs may not be fully funded in the annual appropriations process and commodity interests, whose price support programs are usually sustained by mandatory funding.¹⁷ Reductions in spending under environmental programs have been included in the House Agricultural Appropriations Bill for 2012. Similar cuts have been proposed by the authorizing committees to meet other objectives. For example, a proposed reduction in EQIP was to offset partially the costs of the Healthy, Hunger-Free Kids Act of 2010. That reduction, which was in the Senate version of the bill, was opposed by a number of interest groups and in the end the additional funding was covered by a reallocation of funds authorized for food stamps. As observed by Monke and Stubbs (2010):

"In general, the production agriculture community has not raised strong opposition to most of the recently enacted reductions in mandatory programs because the farm commodity programs have not been targeted. Nonetheless, they are not supportive of any reductions that increase funding for nonagricultural programs. Conversely, environmental and conservation supporters have been more vocal and expressed significant concern over the reductions—by both authorizers and appropriators—because many cuts have targeted conservation programs. These groups argue that when authorizers reduce conservation funding they undercut many of the programs that generated political support for the farm bill's initial passage. They also argue that cuts by appropriators circumvent commitments made in the farm bill by the authorizers." (p. 4).

In the context of the debate on future legislation under severe budget constraints, the mandatory versus non-mandatory distinction could become more significant. There may be strong pressure to limit mandatory spending in order to stay within a reduced budgetary ceiling. Conversely, non-mandatory spending may be placed at risk if future rounds of budget cutting during the life of the next farm bill influence the appropriations process. The latter factor may be less important if a multi-year agreement on the overall Federal budget (a multi-year deficit reduction plan) is reached since that would provide greater certainty for future discretionary spending.

The US decision on budget allocation for agriculture is complicated by ongoing difficulties in Congress and with the Administration to agree budgets for 2011 and beyond. The extent to which future US expenditures on entitlement programs (Social Security, Medicare, and Medicaid) will be constrained is likely to be a major element in the deficit reduction debate, since spending on these programs plus defense makes up more than 80 percent of the Federal budget. In a presidential election year, the politics surrounding the budget reduction debate are likely to be particularly intense. This will be reflected in deliberations on the 2012 farm bill and the extent to which the entitlements that it provides will be reduced.

Though the budget is likely to be an overarching issue in the debate on the 2012 farm bill, this does not mean that it will prove to be a major additional constraint beyond the need to stay within the CBO baseline. For that to be the case there would have to be a broad consensus on the need for reductions across the Federal budget and political agreement on how to implement these. A number of proposals have surfaced on how to tackle the deficit and how much the deficit reduction package would cut into programs such as agriculture. The President's Deficit Reduction Commission suggested cuts of about \$10 billion in farm programs over a period of ten years; the House budget proposal agreed in April opted for a cut of \$48 billion from agricultural spending, and talks led by Vice-President Biden have reportedly used a figure of a \$34 billion reduction over the ten year period. While the magnitude of such cuts might well become clearer as the pressure to raise the US debt ceiling intensifies it is possible that

Mandatory funding can be reduced in the annual appropriations process or by the House and Senate Agriculture Committees. However, mandatory spending tends to be more stable and consistent compared to that through the annual appropriations process (Monke and Stubbs, 2010).

political agreement on longer term program funding may not be reached before the new farm bill is due to be signed. And even if it were, it is possible that significant cuts in farm bill expenditures could be so costly politically that these will either not be implemented or will be set aside if economic conditions in the farm sector deteriorate.¹⁸

The experience of the 1996 Farm Act with the commodity price slump of 1999-2001 provides a sober lesson on this point, as Congress enacted various emergency measures to increase agricultural support. Things may be different if radical action is forced on US politicians through an economic crisis, e.g., an inability of the United States to finance further increases in the deficit without significant increases in the interest rates paid on government securities. Despite this, many farm leaders and Congressmen have noted that if budget cuts are going to be required, agriculture will have to take its "fair share". What that share would be and how it would be distributed across programs are key issues. It is difficult to implement stronger disciplines, particularly in a presidential election year, when the inevitable tendency will be for blame shifting among the major players—between political parties, between the Congress and the Administration, between the politicians and the bureaucrats. It is much easier to achieve reform and to shift the blame if this can be assigned to external parties (e.g., disciplines needed to satisfy financial markets or requirements under a new WTO agreement on agriculture, discussed below).

There is also the issue of who will take the lead in making budgetary savings. As noted earlier, cuts can be initiated by the Agriculture Committees, the Appropriations committees, or the Administration (to the extent that it has the authority to do this). Mandatory spending has historically been reserved for commodity programs, but the Agriculture Committees have expanded its use to other areas (e.g., conservation, rural development and energy programs) particularly since the 2002 farm bill. This has led to tension with appropriators with "changes in mandatory program spending" (CHIMPS) being used to block mandatory outlays (Monke and Stubbs, 2010).¹⁹

There has been a recent example of the administration taking the initiative to reduce spending. A renegotiation of the terms of the agreements with the private companies that participate in the crop insurance program will result in an estimated reduction of roughly \$6 billion in payments over a ten year period, two thirds of which has been earmarked for reducing the Federal budget deficit. One implication of this change is that Congress cannot use the credit for reductions in crop insurance expenses to provide leeway to protect other expenditures because the Administration made the cuts (Monke and Stubbs, 2010).

International Constraints

Both the EU and the US operate under the constraint of being major players in world agricultural markets. This implies a particular scrutiny by other countries that their policies are not seriously injuring the interests of other trading partners. This responsibility is not new to either the EU or the US: both have been through their fair share of trade conflicts with other countries. And each has targeted the other's policies on numerous occasions.

Recent history suggests a number of ways in which that could happen—including a significant reduction in demand for farm exports due to economic difficulties in other countries (e.g., the Asian economic crisis of the late 1990s), political unrest (e.g., recent reductions in grain exports to Egypt) or a significant appreciation of the US dollar in response to higher domestic interest rates (e.g., the dollar appreciation of the early 1980s due to tight monetary policies designed to reduce inflationary pressures).

¹⁹ CHIMPS were used to reduce mandatory spending by \$7.5 billion between FY2003 and FY2010 with conservation programs being the principal target (EQIP has the highest multiyear total of over \$1 billion). CHIMPS have also been used by appropriators to offset increased spending in other areas, e.g., on disaster assistance or nutrition programs.

EU Trade Agreements

The EU has played a key role in agricultural and food trade in the past fifty years. In the 1960s the EU6 was a major importer of farm products, as domestic capacity was rebuilt after the war. By the 1970s, with high prices surpluses began to appear in particular for grains, dairy products and sugar. The situation was relieved only temporarily by the accession of the UK in 1973, a major importer of agricultural products though with its own traditional suppliers. Attempts to scale back production and to reduce prices to world market levels occupied several policy initiatives in the 1980s, with a breakthrough coming in 1992 with the MacSharry reform. Since then internal price levels in the EU have had a more sustainable relationship to world market conditions, with even dairy products and sugar among those products where internal prices are not too far out of line with those on the world market.

The position of the EU in trade negotiations has reflected this change. The MacSharry reform enabled the EU to agree to disciplines on domestic support and export subsidies in the Uruguay Round. Current trade constraints are a reflection of the agricultural trade system devised by the EU and the US at that time. The progressive transfer of support, first to the blue box (of payments linked to supply control) and subsequently to measures notified as green box (non or minimally trade-distorting), has left the EU in a much less defensive position at the negotiating table (Josling and Swinbank, 2011). Thus the Doha Round has been the first such round where the EU can be assertive in terms of its own objectives. And at present the focus has switched from Transatlantic disputes to competition with middle-size and emerging agricultural powers, such as Brazil, Argentina, South Africa, Chile and Australia. The policy issue is whether to accept further restrictions on domestic policies in order to gain benefits from other countries, both in terms of market access and restraints on domestic and export subsidies.

Though the ultimate fate of the Doha Round is still in doubt, the draft modalities of December 2008 can be used to indicate the likely impact on the CAP if agreement is reached. With respect to domestic support the latest notification to the WTO for the year 2007/08 indicates an AMS of 12.4 billion euro, well below the proposed ceiling of 21.7 billion euro for the end of the transition period (after the 70 percent reduction from the current ceiling of 72.2 billion euro). Thus the new AMS limit would appear to allow further policy changes consistent with developments since 2003. However, any major return to price supports would mean that support would rapidly approach the WTO AMS (and OTDS) limits (Blandford and Josling, 2011). The proposed elimination of export subsidies would remove the possibility of a reversion to the practices of the past, where the EU disposed of surpluses on world markets to the detriment of competing producers. The impact of proposed changes in market access would be more selective, and influenced by the choice of "sensitive products" that would be subject to smaller tariff cuts. Even for those products there would be some market opening through expanded TRQs. Sectors that might be affected include suckler cows and sheep, poultry, fruits and vegetables.²⁰ For other sectors there should not be any major effects (Bureau and Witzke, 2011).

Trade constraints do not just derive from multilateral trade agreements. The EU has been active in negotiating regional and bilateral trade agreements with many countries. Agriculture has always played a significant role in these negotiations. For domestic products, the main constraint has been the political need to avoid unfettered market access. This has led to a succession of arrangements to allow limited access for countries with which the EU has historical ties. Commodities such as sugar and bananas (both part of the CAP) have been the focus of much of an ambiguous trade policy of maintaining access for favored overseas suppliers while keeping a market for domestic producers.

The market for suckler cows could be affected even if beef tariff lines are treated as sensitive products. Two-thirds of EU beef consumption is from the (very inelastic) supply of byproduct of the dairy herd. So it could be the suckler cow market that will take all the shock from a Doha (or a MERCOSUR agreement).

With the exceptions mentioned below the major feature of current EU bilaterals is the existence of quotas that allow for a degree of market management.

A major change in EU trade policy came with the introduction of open (tariff and quota free) access to least developed countries, many of them in Africa, under the Everything-But-Arms agreement (EBA). This has encouraged changes in domestic policy, such as the reform of the sugar regime. More generally, the current negotiations between the EU and the ACP countries (the signatories to the Lomé and Cotonou Agreements) are increasing access for those countries. The EU has succeeded in concluding a comprehensive economic partnership agreement (EPA) with Caribbean ACP countries through CARIFORUM. Negotiations with African countries are being channeled through four of the main regional agreements, but only partial success has been achieved (IPC, 2011). With the exception of the agreement with the Caribbean, the EPAs are still not fully operational. Some countries have signed partial ("goods only") agreements, but more than half of the ACP countries failed to reach an agreement before the January 1, 2008, deadline, when the WTO waiver that prompted the EU to negotiate these agreements expired. A bold move by China to develop trade and investment links with African countries appears to be causing a rethink of the traditional assumption that there was little alternative to close ties with the EU even if these come with political constraints.

One trade policy development in the EU is a renewed discussion on the scope of the Generalized Scheme of Preferences (GSP). A reform of this policy could have some significance. There is political opposition to giving trade preferences to China (some political pressure comes from the fact that China is said to restrict exports of rare earth elements and other strategic products) and to countries with a higher GDP per capita than the lowest income member state. In addition, countries that currently benefit from the GSP, e.g. Brazil, have become particularly competitive and have squeezed EU poultry and pork producers out of many third markets. Taking account of those countries that are under pressure to conclude regional or bilateral agreements, the number of GSP-eligible countries could eventually be halved. This could be seen as a major change in EU trade policy.

The practical effect of excluding from the EU GSP a group of countries might have a limited effect, in practice, given that the current preferential margins under the "regular" EU GSP are very limited. By contrast, the "GSP Plus" arrangements, initially designed to help countries diversify away from narcotics exports but expanded to a larger number of countries, now have become very "generous" in terms of coverage. Overall, if one considers the effect of the EPAs, EBA and GSP Plus, the EU has actually granted considerable market access albeit to a restricted number of countries, mostly African, Caribbean, and Andean and Central American countries. Revisions in the list of GSP Plus eligible countries, as well as new bilateral agreements could lead to more opening of the EU borders that are still quite protected from imports from North America, Australia, New-Zealand, MERCOSUR, and most Asian countries.

US Trade Agreements

The current WTO agreement on agriculture (including rules on domestic support, market access and export competition) imposes relatively few constraints on US agricultural policies. The domestic support disciplines impose a maximum on the total support provided under market price support programs for dairy and sugar, non-exempt payments for commodities and non-product-specific support (amber box). Direct payments have been notified under a category exempt from limitations (green box), as have payments under food assistance and environmental programs. The green box status of US direct payments has been called into question as a result of a dispute settlement case on cotton brought by Brazil. If those payments were to be included in the amber box the US would have exceeded its amber box maximum in certain years. This is not currently an issue with relatively high commodity prices.

The 2008 Act made some definitional changes to the dairy price support program that has allowed the United States to reduce notified support for that commodity.²¹

If a new agreement on agriculture is eventually concluded in the current Doha round of WTO negotiations, disciplines would be tightened on US domestic support, various forms of export assistance would either be eliminated or more tightly constrained, and there would be some reductions in tariffs and increases in tariff-rate quotas (TRQs) for those products claimed as "sensitive". These changes could place some pressure on existing commodity programs (dairy and sugar, in particular) in terms of meeting WTO commitments on domestic support. Should prices fall and significant price-linked payments be triggered there could also be issues for major field crops. There is some flexibility in the WTO commitments (particularly on the legal definition of support prices) that might allow the United States to reduce notified market price support, although this could require some legislative changes for existing programs. It is rather more challenging to alter the current programs for crops to avoid the possibility of exceeding WTO support bindings, particularly if market prices fall. The ACRE program, introduced in the current Farm Act, has added an additional layer of complexity to meeting future commitments because of its ability to pay production-linked subsidies to farmers when prices are relatively high.²² Significant changes in the crop insurance program would have to be made to allow the US to notify the government subsidy element in this program as "green box" support.

These issues strengthen the argument for moving to a safety net involving less reliance on payments that are tied to current production and prices. Crop insurance subsidies are currently included in the non-product-specific (NPS) support category that has been below the *de minimis* level (currently five percent of the total value of agricultural production). Staying within that commitment would become more challenging under a Doha agreement since the *de minimis* would be reduced to 2.5 percent. However, it would be possible to absorb an increase in support under NPS if other categories of support (market price support and non-exempt direct payments) could be reduced. A switch from current programs to a safety net approach that is based on the provision of insurance against short-term fluctuations in production or prices could make this possible, provided that the programs were designed to be consistent with WTO rules.

Another outcome from a Doha agreement would be that US export prospects for the major farm and food sectors are likely to improve steadily if not dramatically from a conclusion of the Round. The most significant aspect of the agricultural talks is that of market access. The Uruguay Round provided a more transparent basis for trade negotiations by obliging the conversion of virtually all non-tariff trade measures into tariffs. The cuts in those newly bound tariffs was however minimal (36 percent on average for developed countries but in effect rather less). The Doha Round would cut developed country agricultural tariffs by 50-70 percent, with the higher cuts applied to higher tariffs. However, countries could designate up to 4 percent of tariff lines as "sensitive" and compensate for smaller tariff cuts by offering more reduced-tariff quotas (TRQs). Though this would modify the impact of tariff cuts it would not offset their effect entirely: the minimum average cut across products would have to be 54 percent.

Though of less immediate significance in terms of trade expansion, the proposed Doha constraints on export subsidies are systemically important. Export subsidies were limited in the Uruguay Round but it

Further detail on these issues is contained in Blandford and Josling (2011), Blandford and Orden (2011) and Bureau and Witzke. (2011).

Participation in ACRE would become more attractive if current direct payments were reduced substantially or even eliminated. In that case, the likelihood that the program would create problems for meeting Doha domestic support commitments would be increased.

was not until the Doha Round that their elimination became politically possible. The EU has been the major user of export subsidies during recent years: US programs have largely been phased out or made consistent with WTO rules. One form of export assistance that could be affected is food aid. The US is a significant contributor to in-kind programs based on US products that allow recipient governments and NGOs to sell these products in the marketplace. Other food aid donors prefer cash contributions that allow recipient governments to purchase supplies from the most convenient source, often a country in their own region. The Doha restraints on food aid will not cut the provision of emergency aid or hunger relief efforts but may make the US change its current policies.

Alongside these changes at the multilateral level, negotiation of regional and bilateral free trade agreements could influence US farm policy. Existing or future bilateral or regional trade agreements could impose some pressures for reform for certain commodities (e.g., sugar or dairy) if these allow greater access to the US market for competing suppliers, but the potential for increased competition is usually limited through the terms negotiated for agriculture under such agreements (e.g., the agreement with Australia which excluded dairy and sugar). Trade agreements could make access to certain markets for US agricultural exports easier, but the commodities involved are often those not subject to major government support programs (e.g., beef).

In the US, the spate of small-but-interesting bilateral agreements came to a halt after the adoption of the agreement with Central America (CAFTA) and the inclusion of the Dominican Republic in that agreement. The last three agreements negotiated by the previous Administration, with Korea, Colombia and Panama, still await Congressional approval. The agreement with Panama is of relatively limited significance for agriculture, but would bring some political benefits in the region. That with Colombia is of greater potential benefit for US agriculture, in particular because some competitors have recently been granted access to that market. Korea is the biggest prize, but again US agriculture could find itself with less free access than competitors if the agreement is not ratified soon.²³ At present a disagreement on how to handle legislation on trade adjustment assistance is holding up ratification of the pending trade agreements, but it is still possible that all three will be ratified during the current calendar year.

The latest set of trade negotiations has the most potential for future export growth. In May 2006, four countries (New Zealand, Singapore, Chile and Brunei) formed an informal group to promote free trade in the Pacific region. Two years later the US indicated a willingness to join this coalition, and this led to the inclusion of Australia, Peru and Vietnam on the talks on an expanded free trade agreement. The initiative was renamed the Trans-Pacific Strategic Economic Partnership, TPP, and nine countries are currently in negotiations. The aim is to eliminate all tariffs within 12 years, with 90 percent of trade being free from the first year. The significance of this move is as a framework for others to join. It is seen as a complement to the "unilateral" approach of the Asia Pacific Economic Cooperation (APEC) process that emerged ten years ago. Agricultural trade would be among the most significant aspect of such an agreement if progress continues to be made.

6. Recommendations for the redirection of EU and US Policies

Meeting the multiple objectives of farm policy in the EU and the US will always be a complex task and make use of a variety of policy instruments. Both sides of the Atlantic (and much of the developed world) have abandoned the notion that maintaining high prices enables farm policies to be responsive and effective to changing economic conditions. High commodity

An EU-Korea free trade agreement came into force on July 1, 2011 which will see the phased reduction or elimination of tariffs on EU agricultural exports to Korea.

prices were largely reflected in the price of land and other assets, and the burden on consumers (and the food processing sector) and the budget created tension within and among countries. The replacement of high support prices and government purchases by direct payments (though still reflected in land prices) resolved many of the problems but introduced others. And risk management issues became more pressing as farmers became more exposed to the vicissitudes of the market. Environmental demands and food safety requirements also call for new policy instruments if farm policy is to be in concert with, rather than in opposition to these objectives.

The type of instruments available runs the gamut from market measures to mandates and conditions attached to payments. Table 5 summarizes the main categories of instruments and provides some comments on their suitability for addressing current policy challenges. Their administrative feasibility and political acceptability are not specifically addressed. This section attempts to suggest which alternatives might improve the performance of farm policies, both in terms of meeting domestic goals at reasonable cost and in contributing to broader trade and development objectives in a responsible manner. The focus is on the ways in which the EU and US could implement improvements in policy as the next stage in reform.

The future development of EU policy

In the debate on the future CAP, there is little enthusiasm for a major reorientation of the policy. The scope of possible policy developments over the next few years ranges from a full shift to a focus on "public goods" provision, with only minimal market protection through (moderate) tariffs, to a narrower focus on productivity and risk management and on improved marketing, with the public good provision being left to member states or to other parts of the policy nexus. Neither extreme seems likely. The more feasible range of policy developments is from a modest shift in the current allocation of direct payments, through more emphasis on competitiveness and market development to a strengthening of the programs for rural development.

This lack of radical changes to the CAP in the political debate is a reflection of the extent of the success of reforms and their broad acceptance. Most market intervention has been scrapped (with the elimination of basically all intervention prices except for bread wheat and dairy)²⁴. The price support that persists is mostly the result of high MFN tariffs in particular sectors (beef, dairy, sugar) whose future will be determined outside the CAP debate. The demands from farmers' organization to go back to guaranteed prices now appear as largely unrealistic and are not seriously on the agenda. Proposals for making direct payments countercyclical have met a more favorable echo from some farmers' organizations, cooperatives and some member states. The reduction of direct payments in times of high prices looks like a good idea to many observers. However, there are several problems with this proposal, and it is unlikely to go very far when it is time to discuss empirical implementation. The first obstacle is that large inter-annual variations in the direct payment budget would be incompatible with the current rigid appropriations in the EU budget that prevent large variations in expenditure. Even though many MEPs would like to have more flexibility and more Parliament control on the annual budgets, coping with several billion euro of inter-annual variations in the budget would require fundamental reforms of the EU budgetary procedure. Making direct payments dependent on the market situation would also shift such payments into the "amber box" of domestic support and raise compatibility issues with WTO commitments. It would also undermine the incentive for cross-compliance and therefore go against the "greening" of the first pillar. One might also argue that the benefits of having a public authority doing what farmers might be expected to do with a fixed payment (i.e., save some of in good years for harder times) seem trivial. But perhaps more important, it would be difficult to manage a countercyclical The possibility of support for private storage, particularly in pigmeat, still exists even when intervention by public agencies has been suspended.

payment without going back to product-specific payments, which would involve a complete reversal of the current orientation of the CAP.

The use of more market regulation in the CAP, in order to avoid the large price fluctuations that have been observed over the last five years, has also been proposed, particularly by the French government that has put the issue of agricultural price volatility on the agenda of the G20. However, in practice it is unlikely that any ambitious policy in this area will be included in the CAP. A major reason is that **no** one has yet found satisfactory, and even realistic, ways to stabilize agricultural prices without getting back into either a public intervention system or a guota system, and earlier experience with the CAP has shown the many unwanted effects of such mechanisms. And if "stabilization" is mainly to offset downside risk, it is difficult to argue for this if the risk is one of periods of high prices. Some member states have argued for an ambitious EU policy regarding income insurance, but this has been opposed by other member states. In its November 2010 proposal, the Commission safely proposes to have insurance schemes within Pillar 2, i.e., with co-financing (EC, 2010). It is likely that this will remain largely a policy managed at the member state level. The possibility of other forms of market regulations (e.g., buffer stocks, active hedging by EU authorities) have been investigated in several recent reports, which have all shown the risk associated with such policies, and recommended instead much less ambitious measures such as more supervision and transparency in derivatives markets. Overall, in spite of the rhetoric on the need to introduce more regulation so as to have EU agricultural prices more stable, it is unlikely that much change will be introduced. The more likely outcome is a set of crisis management instruments, inspired from the package used in the 2009 dairy crisis (e.g. a mix of incentives for private storage, demand enhancement and direct payments, with perhaps some limited export refunds at least until a WTO agreement forbids these).

So what are the main issues left to be discussed by the EU Commission, Council and Parliament in the debate on the future CAP? The most visible issue is the amount of funds to be devoted to the policy. The budget situation is tight for many member states, with some even facing difficulty paying their contribution to the current EU budget. It is unlikely that the EU budget will increase, and it is somewhat incongruous to hear government officials and MEPs stating that the CAP budget should be maintained or even increased while more resources need to be devoted to new issues (in particular in research and information technology, as well as migration controls). The budget debate has introduced some delay in decisions regarding the future of the CAP. The level of the budget will primarily affect decoupled payments, which absorb most of the financial resources, but also second pillar programs. The level of EU ambition for rural development is also dependent on the outcome of the budget debate.

The distribution of payments among member states is a second policy issue. New member states argue that they reap much less benefit from the CAP than the EU15, even though the budget for their direct payments has been increasing over a 10-year transition period following adhesion. Many original member states have put forward arguments against a complete leveling of payments across the EU27 in order to avoid large transfers to the new members. As a result, it is likely that negotiations will end up with a compromise, with significant redistribution of pillar 1 payments between member states, but without a full harmonization of the level of payments per hectare, for example. This will affect the way payments are designed, since some criteria will have to be found to match this implicit political constraint in defining the modalities of farm payments (e.g. the purchasing power of the euro in each member state).

Another key issue is the balance between the Pillar 1 and Pillar 2 budgets. Recent European Parliament reports by MEPs have acknowledged that the issue is important (see the 2010 Lyon report

and the 2011 Dess report). However, there is strong opposition from some member states to moving resources from pillar 1 to pillar 2 measures. One major reason is the need for co-financing of pillar 2 measures, and opposition to having to match EU funding from their own budgets. Another reason is pressure from the farm lobby, which clearly prefers receiving pillar 1 payments that are less attached to constraints than the pillar 2 payments. Member states also put forward arguments on the complexity of managing rural development measures and the related transaction, inspection and control costs (which is a genuine problem in countries that lack an efficient administration, or with a large population of small farmers).

One argument in favor of moving funds to pillar 2 is that these programs are oriented to the provision of public goods. The promotion of the concept of support for public goods has been a way to address the opposition of many member states to shifting budgetary resources towards agri-environmental and other pillar 2 measures. But it is also conceivable that such payments could be located under Pillar 1 (sometimes referred to as "greening" the first pillar). Stressing the need to support public goods such as the protection of biodiversity, the management of watersheds, and the storage of carbon in permanent pastures, would also legitimize shifting some payments currently granted to intensive arable crop production towards extensive livestock production. This could partly address the issue of low incomes for beef and sheep producers though it would also conflict with the control of greenhouse gas emissions, particularly those associated with ruminants.

"Public goods" is a rather general term whose content leaves room for interpretation and ample scope for bad policy.25 Lists of public goods eligible for support have been proposed by a variety of NGOs and have been debated in working groups under the auspices of the Commission. In practice, the list that seems to be considered relevant includes: environmental protection, notably farmland biodiversity; water quality and availability; soil functionality; air quality; climate stability (reducing greenhouse gas emissions and increasing carbon storage); resilience to flooding and fire; and preserving culturally valued agricultural landscapes. Farm animal welfare, an issue that ranks high on the agenda of some member states is also a part of the package. Two other items have strong supporters, but are more controversial. On the lists presented in many documents, for both the Commission and the EU Parliament is the concept of "rural vitality", i.e. the social, economic and cultural viability and vigor of rural societies, which is also backed by many environmental NGOs as well as charities and even religious organizations. The other item is "food security", defined to include the capacity to produce food sustainably in the future. Both rural vitality and food security are potentially very broad agenda items and one suspects that some lobbies and member states use such elastic concepts to defend traditional support policies. Similar use of a broad concept applied in the past when the Commission was promoting the concept of "multifunctionality" in international fora. 26

A further significant issue on the agenda is how to make the distribution of direct payments more equitable. Because direct payments were originally designed to compensate farmers for the lowering of guaranteed prices, they were made proportional to previous levels of cereals and oilseeds production, and to some extent to beef and sheep production. The perpetuation, some 20 years later, of the same reference levels in some member states means that decoupled payments tend to go to larger and more productive farms, which are often involved in intensive agriculture. The inequity of the current distribution of pillar 1 payments, that often go to a segment of the population that is wealthier

The existence of a public good does not in itself justify policy intervention. Each case should be taken on its merits and judged against alternative ways of supplying the good. Similarly, many public goods are actually "consumed" at the member state level, so the justification for EU action is weakened.

In practice, there is no obvious major difference between the current emphasis on "public goods" and the concept of "multifunctionality" pushed by the Commission in the 1990s and early 2000s. The use and abuse of the latter by some member states (including to defend export subsidies) resulted in a loss of credibility for the concept in the international arena.

than the average taxpayer, has long been criticized by academics, think-tanks and NGOs. In order to make these payments more palatable to the general public, as well as to fund pillar 2 measures, "modulation" was introduced. Larger payments are reduced more than proportionally so that funds can be redirected to pillar 2 activities, but some member states with large farms have successfully opposed all attempts to cap payments to individual farms (the issue is made complex by the existence of large farms inherited from collectives and cooperatives in the former East Germany and in some new member states). While the Commission has announced that some form of capping will be contained in its proposal, the same member states will certainly oppose this.

The inequity of the distribution of pillar 1 payments has led the Commission to propose a move away from historical references for individual payments. This was seen by many as a central point of the November 2010 communication. However, in practice, this is a much less important issue than it seems. Indeed, the post "health check" CAP grants member states a considerable degree of flexibility in allocating pillar 1 payments. Regulation 73/2009 includes a variety of articles, in particular article 68 that has been widely used by some member states, but also less well known articles (e.g. Articles 63, 51, 52, 53, 45, 46, 47, 48, 49, 72). These all introduce possibilities for modifying the current allocation of and criteria for granting payments. Some member states have already used these flexibilities, for example by shifting rapidly (e.g., Denmark) or over a transition period (e.g., Germany) to a flat per hectare payment. Some others have used the various articles quoted above to reallocate some payments from arable crop producers to extensive grazing producers (under pillar 1). The example of France shows that these flexibilities can potentially lead to a large degree of budgetary subsidiarity. In 2009 the French government reallocated some 1.4 billion euro of payments from regular SPS schemes (i.e. mostly from arable crop producers and some beef producers) to extensive grazing producers. But the flexibility was much greater: Chatelier and Guyomard (2009) calculate that the French government had the capacity to reallocate €3.6 billion of its SPS funds by using Article 63 and 68 alone and extra modulation, to say nothing of other possibilities.²⁷ Clearly the issue of the distribution of direct payments has become largely a member state issue. If the Commission pushes for a more even distribution, it is mostly to put pressure on member states that have maintained the historical allocation, and whose governments have not been able to confront vested interests by making use of existing flexibilities.

Finally, an important issue is the simplification of the CAP. The administrative burden placed on farmers as well as on national administrations, has been growing in many member states, even though the decoupling and the creation of a "single" farm payment was supposed to make things simpler. The need for simplification is stressed by all farm organizations. It is a thorn in the side of many environmental organizations, whose proposals for encouraging the delivery of public goods tend to lead to more complex policy measures. The issue of simplification could be a major force against the greening of the CAP, given that the efficiency and the relevance of simple measures that can be applied throughout the EU and which need little inspection and control is limited.

EU reform has reached a stage where the CAP in effect relies on direct payments to satisfy demands for income support and at the same time seeks to change farmers' environmental practices. Relatively high tariff barriers give a measure of protection from international competition. But the stability of this policy depends, as noted earlier, on the political acceptability of the payments and their economic effectiveness in achieving objectives. Further reform should do more than simplify and improve the conditionality of the direct payments. It should work towards a distribution of the payments that is both equitable and rational. The case for continued direct payments needs to be made in a way that is convincing to the public. If this is not possible they should be phased out. Reform should limit other aspects of the CAP to

This amount can be compared to a total SPS budget of €5.8 billion, a coupled payments budget of €2.7 billion and a Pillar 2 budget of €1.8 billion in 2008.

improving competitiveness and encouraging open markets. The international environment is such that the EU will, at some point, need to make concessions regarding agricultural border protection. Either a WTO agreement will be reached, or the EU will have to sign ambitious bilateral or regional agreements with large entities that are now the main locations for economic growth, i.e., MERCOSUR, India, Russia, and the Ukraine, and in many cases these countries will demand greater access to the EU market for their agricultural products. The EU arable crop sector faces limited risks from such agreements (with the exception of sugar), but the livestock sector, in particular, may need some assistance. This could be done in a way that is more targeted, for instance using a redefined Least Favored Area payments program to help hill farmers transition to more competitive activities.

The future development of US policy

It is unclear how much reform of agricultural policies will be possible in the 2012 farm bill. In view of severe budgetary constraints, there could be a major reconsideration of policy direction, although the likelihood that this will be possible in a presidential election year is not high. Nevertheless, on the assumption that a serious reconsideration will be possible, some directions for change are outlined below.

Redesigning the safety net

If we make the assumption that there will be continuing desire to maintain some form of safety net for US agriculture, a major challenge will be how to achieve this in an environment of extreme budget stringency. Current safety net programs fall under three categories: commodity programs that provide price and income support for selected field crops and for dairy and sugar; risk management programs that provide protection for a broader set of commodities, including specialty crops and some livestock; and disaster assistance, that is typically directed to crop and livestock farmers when there are weather-related losses not covered by other programs.

Changes in these policies will have to respect the different positions of the commodity groups (and the States in which they are established). Historically programs have primarily benefited farmers (and landowners) associated with the production of major field crops (e.g., corn, cotton, rice, soybeans, sugar and wheat) and milk. In recent years some other commodities have been added, such as dry peas and lentils. However, producers of so-called specialty crops, such as fruit, vegetables and horticultural products and most categories of livestock have not received much support through commodity programs. They have occasionally been eligible for disaster assistance or ad hoc payments (e.g., payments associated with generally low commodity prices at the end of the 1990s). But the main influence of the specialty crop interests has been felt more in the area of nutrition, where attempts to increase the consumption of fruits and vegetables has led to increased use in school meals and other publically supported programs.

The money that will be available for farm safety nets will likely be determined by the budget baseline for the commodity programs and the crop insurance program (Shields et al., 2010). In terms of income support (particularly fixed direct payments), serious questions are being raised as to whether this element will survive in the 2012 farm bill. Measures that are designed to support prices and incomes have been politically popular, despite the fact that farm households generally have higher incomes and higher net worth than the average American household. Concepts of equity or fairness do not seem to carry much weight in the farm bill debate, either in terms of the total level of payments to agriculture, or the distribution of payments among

farmers.²⁸ There have been efforts to control the total amount of payments to individual farm operators or landowners, but limits have generally proven to be ineffective. They can often be circumvented by subdividing farms across multiple operators or through other means (e.g., the use of certificate exchanges for marketing loan benefits). To the extent that equity will enter into the debate on the 2012 bill at all, beyond the struggle of the various constituencies to maintain their share of the budget, it is likely to become a factor in the context of considerations of whether agriculture is being expected to take more than "its fair share of the cuts".

With these issues in mind, the following would seem to be key elements for an effective (and less expensive) risk-based safety net for US agriculture that would substantially replace existing programs. A new safety-net program should:

- Provide incentives for active risk management and self-insurance by farmers
- Enable farmers to manage short-term risk in prices and output, primarily through crop insurance and private price risk management mechanisms (forward contracting, futures and options)
- Enable farmers to manage longer-term systemic business risk associated with periods of low prices; and
- Provide a means of addressing uninsurable catastrophic risk through a disaster relief mechanism.

For legal reasons (to avoid challenges based on constitutional grounds) participation in any new programs would have to be voluntary.

Crop insurance would continue to be a key element for short-term risk management. The central issue is how much public subsidy to provide. An insurance-based approach could help to leverage increasingly scarce public resources. There is more likely to be support for public-private partnerships for risk management in the US than in Europe where government might be expected to take the lead. If there is to be shift towards a greater emphasis on private initiatives in managing risk the issue will be one of controlling public costs, while providing sufficient private sector incentives for the supply of risk management products and the use of these by farmers. Particularly problematic issues are how to limit moral hazard (the incentive to cheat) and adverse selection (the tendency for those facing high risks to participate but for those facing lower risks not to do so). The voluntarism of the current system of commodity programs is a unique aspect required by the US Constitution, but it has distinct weaknesses in the face of differential risks and differences in the ability of private individuals to bear these risks.

Current commodity programs do not require farmers to take an active part in managing systemic business risk. In fact it can be argued that they actually discourage this. A co-responsibility (public-private partnership) approach for limiting the impact of fluctuations in prices on farmers' net income would change this situation. One option would be to create individual farm income stabilization accounts (FISAs). Part of the funds currently authorized for direct payments and for price support payments could be reallocated to provide for the accumulation of stabilization accounts based on public contributions and contributions from farmers themselves. Initial accounts could be created by a non-matching start up payment, financed from the phase-out of existing direct payments and other entitlements, with subsequent contributions from public funds made on a matching basis (the match could be 50/50 or some other ratio to be decided with capping of the total size of accounts, possibly

The crop and geographical distribution of payments is more sensitive, however, with the amount of payments to producers of various crops responding to different market conditions. Moreover, most government payments go to farmers in the mid-section of the country where the production of crops under government programs is concentrated, weakening support for the programs from specialty crop producers in the West and the South.

based upon gross farm sales). Ideally the accounts would be held and managed on a private basis (similar to Individual Retirement Accounts), rather than involving potentially unfunded Federal liabilities (as is the case with the current Social Security system). Farmer contributions would be made on a pre-tax basis and disbursements would be treated for tax purposes as additional farm income. Rules for disbursements would need to be established (i.e., what levels of income change would trigger the right to withdrawal, similar in concept to price payment triggers under counter-cyclical payments, or revenue triggers under the ACRE program). The ownership of FISAs could be transferred to new farm owners/operators if existing farmers ceased to farm. Alternatively, some or the entire fund could be made available to a farmer on retirement.

With respect to catastrophic risk, a disaster relief program is needed that addresses true disasters, e.g., catastrophic damage to crop or livestock production in a given area due to extreme weather events. If a risk management approach to the safety net is to prove successful, the potential for ad hoc support measures must be limited. A major challenge is how to ensure that "disaster relief" is exactly that, i.e., limited to addressing non-insurable risks that generate significant losses, rather than a convenient tool for politicians to win votes by providing additional transfers to their constituents. It would be necessary to establish rules that will constrain this tendency and place the focus on non-insurable risk with major consequences for the future viability of farming in affected areas.

There is an issue of the extent to which participation in these three types of programs should be linked. Complete de-linkage is an option providing that the three risk management mechanisms are themselves separable, i.e., each approach is configured in such a way that it does not address the issues that the others seek to address. In particular, disaster relief provisions should be defined such that this instrument could not be used to substitute for short-term risk management and hence lower the incentive for farmers to participate in insurance schemes, or reduce the incentive to manage systemic risk due to deterioration in market conditions. De-linking the elements of the safety net has the advantage that a farmer who does not wish to participate in either the short-term risk management or systemic risk management programs (a farmer who is risk neutral or risk preferring), would not be required to do so, but could still be eligible for disaster assistance.

Serious reform of the commodity program provisions in US farm policy would require better-focused programs that impose a lower burden on the budget. The safety net instruments used should provide a measure of stability to farm incomes without significant budget outlays over time. A crop insurance scheme that was actuarially sound would be less expensive and more in line with international rules (i.e. eligible for the WTO green box). Budget reductions will require both program changes and modifications in the way that funds are administered. More comprehensive insurance coverage would eliminate much of the need for the counter-cyclical price or revenue linked payments that are at the heart of current programs, though some disaster payments may be necessary as a supplement to insurance in cases where losses are catastrophic. Marketing loans could be phased out over time, as the private capital market absorbed the task of evening-out income among and within crop years. In addition, the ACRE program, would be eliminated since its function would be replaced by the individual income stabilization accounts.

Provision of public goods

The farm bill, as currently structured, contains several titles covering areas such as environmental objectives and rural development that involve public good components. These parts of the legislation, although smaller in terms of public expenditure, may be under particular threat during a period of severe budget constraint. A number of changes can be made to current

programs in order to reduce their costs and to improve their efficiency.

One important change would be to make greater use of auction-based approaches for the allocation of funds under environmental programs. This approach is already used for the Conservation Reserve Program where bids by farmers for payments for retiring land parcels are compared to an index of environmental benefits to determine those to be accepted. The approach could be adopted more generally, for example, in the allocation of funds under EQIP. This would mean that **increasingly scarce funds could be targeted to those uses and regions where the environmental benefits are greatest.** There is an urgent need to identify priorities in such areas as the protection of fragile lands, wildlife habitat, water quality, and farmland preservation, since these aims are complementary only to a certain extent. There are also substantial geographical differences in the environmental stress generated by agricultural activity, for example the impact of intensive agriculture in the Chesapeake Bay watershed compared to extensive rangeland agriculture in the west. Addressing this issue effectively would require greater geographical targeting. The use of incentive-based approaches and targeting to improve the efficiency of environmental programs has been resisted by Congress, despite overwhelming evidence that these features produce more cost-effective programs.

A second important change would be to **expand the use of cost-sharing and performance-based payments in environmental, rural development and other programs**. Tighter expenditure limits could be achieved through greater reliance on loan guarantees rather than grants and through the expanded use of public-private partnerships to leverage available federal funds. This approach is already used in the rural development and energy areas and partial cost sharing is used in some environmental programs. Performance-based payments could become a more significant element in environmental programs and in other areas (e.g., compliance rewards under environmental programs and the use of performance bonds for renewable energy projects). Cost-sharing and performance-based options are more efficient (and more attractive to farmers) if regulatory requirements and performance monitoring provide an incentive to participate. There has been a general reluctance to monitor environmental performance in US agriculture, although some states seem to be moving in that direction (e.g., in the context of addressing water pollution in the Chesapeake Bay).

A third important change would be to assign a higher priority to the use of scarce public funds for investment in research and development and employ greater targeting in the use of these funds. US agriculture faces enormous challenges due to increasing global demand for food and raw materials, including bioenergy, and greater climatic instability. The evidence of the need for expanded investment in R&D across the food system to meet these challenges is overwhelming. An increase in the real price of food and agricultural commodities is likely to stimulate more private investment in the food system, but most basic research (that which does not offer a rapid return investment) is unlikely to be funded privately. With continued pressure on state budgets the amount of funding available for R&D at the state level is likely to decline. Furthermore, the strength of the argument for primarily funding R&D at the state level is rapidly diminishing as gains from innovation in food and agriculture become more national or global in scope. A more targeted approach in the use of available Federal funds, for example, by developing centers of excellence for particular areas of research, rather than using more general allocations of funds across the states, and the expansion of public-private research partnerships would help to meet future needs more efficiently, although this would require a major shift in thinking and organization in the R&D community.

Food assistance

As noted earlier, food assistance programs dominate expenditure under the farm bill and their cost is expanding rapidly. The logic for inclusion of one particular element of social programs under the farm

legislation, which has been primarily political, is becoming weaker. The United States faces significant long-term economic and social challenges in adapting to global economic change. Industries that require high-quality human capital are likely to thrive in the global economy, but the demand for lowerskilled labor is likely to continue to decline. A decision has to be made on the future direction of US social programs—whether these are viewed to be primarily redistributive in nature or designed to achieve economic adjustment in response to economic change. To some extent, both elements are necessary and interlinked. For example, programs that improve the health and nutrition of infants and young people can be viewed as partly redistributive and partly an investment in future productive capacity. Programs that are designed to provide income support to families or individuals who are unable to work because of disability or age are primarily redistributive, since the recipients are unlikely to be candidates for adaptation to changing labor-force demands. In the light of these considerations, it would be logical for the United States to manage food assistance programs under the umbrella of general assistance programs, while at the same time refocusing assistance on promoting labor force adjustment. The use of retraining and other supporting measures needs to be a high priority if the emerging problem of long-term structural unemployment in the United States is to be addressed.

Bio-energy policies in the EU and the US

As noted earlier, bioenergy policies are becoming increasingly important for the food and agricultural sectors of the EU and the US. The development of renewable sources of energy certainly has considerable popular appeal among those who are concerned by the current reliance on fossil fuels and its implications for climate change. The political appeal of the policies is strengthened by the opportunity they provide for increasing farm prices and incomes. On the other hand, the price-enhancing effect of using existing crops as energy feedstocks is not welcomed by animal producers and food consumers.

A case can be made for some assistance in the early development of bio-energy industries on the basis of the infant industry argument. The use of investment incentives and tax rebates and temporary import protection to aid industry start-up can sometimes be justified on this basis. However, at least for the US, there is growing evidence that the biofuels infant has not only grown up, but is becoming over-sized. A situation in which corn ethanol is being produced, with domestic subsidies and import protection, over and above the limits of domestic use does not seem logical or sustainable. Furthermore, reliance on "command-and-control" measures in the form of blending or consumption mandates seems at odds with a market-oriented approach to economic development. For these reasons, **current bioenergy policies in the United States—particularly the excessive focus on biofuels sourced from domestic agricultural crops—are increasingly open to question.** The achievement of an integrated approach to energy policy in the United States could help to address the issue. But this seems unlikely to emerge in the near future given the lack of a national consensus on what the priorities should be.

Biofuels policies in the EU also need to be scrutinized for their effectiveness. Just as with bioethanol, a case can be made for some government assistance if biodiesel has a constructive long-term place in an overall fuel strategy, aimed primarily in reducing the use of fossil fuels. But it is not clear that the current policy achieves this objective. It would be more consistent with the objective of increasing the use of biodiesel to remove restrictions on imports—some related to sustainability standards that are of debatable justification. And if a system of tax benefits is maintained to offset the attractiveness of oil-based products, this should be calibrated to the effectiveness of biodiesel from particular sources. At present neither the tariffs nor the tax system are used in an effective way to achieve the policy objective. The criteria being used at present for defining "alternative" and "renewable" fuels in any case pose some issues with respect to trade policy. As Swinbank (2009) points out, it is difficult to argue that biofuels that save 35 percent of carbon emissions and those that

save only 34 percent are not "like goods".

Trade Reform

Though not a part of the Farm Bill discussion nor the debate on the future of the CAP, the trade policy environment plays a significant role in the success of farm policy in the US and the EU. Two aspects are paramount. The first is the influence of the rules in the WTO (and those in the various bilateral trade agreements) on the choice of policies. As was discussed above, **neither the US nor the EU is currently under pressure to modify the total level of support as a result of the existing WTO limits on trade-distorting support. But there are some issues of conformity that have not yet been adequately addressed. One is the extent to which the direct payments are consistent with the conditions for the green box. In the US, fruit and vegetable growers are opposed to changes that would allow such products to be grown on land on which direct payments are paid. If this opposition is based on the belief that farmers who receive the payments would use them to subsidize production of fruit and vegetables then this seems to provide** *prima facie* **evidence that the payments are not actually "green". If the payments are indeed green, farmers will only choose to grow the crops if the returns from doing so fully cover the costs. In that case the prohibition is simply a way for existing producers of fruit and vegetable to reduce potential competition to the detriment of the consumers of those products.**

In terms of making US policy more consistent with WTO disciplines, some other issues may be briefly identified. If current commodity programs are to be continued, there will be an ongoing problem of the unpredictability of commodity program expenditures linked to current prices and production. This issue is important for meeting WTO commitments. In former farm bills the Secretary of Agriculture has been given discretionary authority to reduce payments under certain circumstances. This authority has never been exercised because of the political costs involved. One option would be to introduce automatic "circuit breakers" for payments in the farm bill, i.e., payment limitations triggered by limits on maximum expenditure levels, in order to remove the discretionary element of the process, but this could make the existing programs less effective as income stabilizers and consequently less attractive to farmers. In contrast, the movement towards an insurance-based safety net could help the United States to meet its future WTO obligations. It would eliminate substantial parts of the AMS, e.g., dairy and sugar market price support as well as non-exempt direct payments. The US currently notifies its financial contribution to crop insurance premia as "non-product specific AMS". However, the insurance component of the safety net could be structured in such a way (particularly in terms of the amount of subsidy paid) to conform to green box criteria. In addition, fixed contributions to FISAs and suitably structured disaster relief payments could also be designed to qualify for the green box.

The apparent consistency of the CAP with the current and the proposed limits of trade-distorting domestic support offers the EU some welcome breathing room in trade policy matters. It would be unfortunate if the EU did not take advantage of this opportunity. First it gives the EU more credibility in promoting its trade agenda: it does not always have to on the defensive over agriculture. This should allow the EU to take on some of the WTO leadership role relinquished by the US as that country struggles to find a convincing trade strategy. But it also gives more flexibility in bilateral and regional agreements. If the EU can convince farm groups that market expansion is possible through such agreements at little direct risk to farm incomes then the political tension between trade and agricultural interests could be eased.

7. Concluding Comments

Farm policies in the US and the EU have been driven largely by internal political factors based on historical, geographical and institutional circumstances. They have clashed with each other for fifty

years giving rise to trade conflicts and polluting trans-Atlantic political relationships. Currently the tension is at a low point, with few overt policy disagreements. The agricultural issues remaining to be agreed in the Doha Round do not center on US and EU differences of opinion.²⁹ But rather than convergence towards a single point of an open agriculture with low or zero tariffs, predominantly non trade-distorting support, and a compatible if not harmonized set of health and safety standards, the policies on each side of the Atlantic are lurching along roughly parallel paths at different speeds and with some moments of indecision. The EU was slow to introduce reforms and appeared to be the laggard. But (sheltered by generous levels of border protection) the EU has transformed its market regimes to rely heavily on direct payments. The US introduced direct payments as an alternative to market intervention, but found that it was politically difficult to avoid such intervention in a period of low prices. Both the EU and the US are searching for the right formula for distributing direct payments in a way that both satisfies farm interests and is explainable to taxpayers. Europe has moved down the path of "greening" payments through cross-compliance, though with less targeting that such a policy would require. The US has stayed away from this model, restricting funding for "stewardship" programs and focusing more on insurance and other risk-management instruments. Moreover, the direct payments seem likely to be cut significantly as a result of budget pressure. In this sense, some convergence of policy instruments over the past two decades masks significant divergences in policy objectives.

What marks the current policy reform discussions in the EU is the need to craft an agricultural policy that places farming in the context of rural development, the provision of scenic and recreational public goods, the stewardship of the environment, and the maintenance of a tradition of quality regional foods. Of course the "bottom line" is the transfer of considerable amounts of public funds to farmers, which makes it difficult to distinguish between objectives and rationalizations. But if the EU farming community is just going along with the rhetoric to keep urban support they may have overplayed their hand and lost control of the process. By contrast, the issues in the US are more clear-cut. The agricultural programs are under the threat of significant cuts in the budget. The agricultural community appears to be taking the view that their best option is to emphasize the importance of production agriculture (although not necessarily the research and development that will underpin its future competitiveness) and sacrifice the trappings of conservation and rural development and funds devoted to nutrition programs. This has the effect of weakening the rural-urban coalitions that have kept the farm programs strong in the past. Whether the US strategy of defending entitlements at a time of budget stringency is more successful than the EU approach of building a coalition based on the provision of environmental goods and services remains to be seen.

One departure from this generalization is the issue of the protection of intellectual property, particularly the establishment of a register of wine names that would be protected in all countries.

Tables and Figures

Table 1: Summary of EU reforms, 1992-2011

Date	Reform	Main changes
1992	MacSharry Reform	Reduction of cereal and some livestock prices and introduction of direct (compensation) payments
1999	Agenda 2000 reforms	Reduction of prices; introduction of second pillar (rural development); cross- compliance introduced
2003	Fischler reforms (Mid Term Review)	Introduction of SPS and SAPS, subject to national ceilings
2004-07	Reforms of specific sectors (cotton, sugar, oliveoil, tobacco, fruits and vegetables, and rice)	Incorporation of support in SPS and SAPS: funds saved allocated to national ceilings
2008	Health Check	Abolished set-asides; started phase-out of milk quotas; increased modulation; limited intervention buying

Source: Authors' compilation

Table 2: Summary of Farm Safety Net Programs Authorized Under the 2008 Farm Bill and Other Legislation

I. Commodity Programs

Field Crops

Direct payments (DP)

Counter-cyclical payments (CCPs) or Average Crop Revenue Election (ACRE)

Marketing Assistance Loan Program (MAL)

Loan deficiency payments (LDP) or Marketing loan gains (MLG)

Dairy

Dairy product price support program (DPPSP)

Milk Income Loss Program (MILC)

Sugar

Sugar price support program (SPSP)

II. Risk Management Programs

Crop Insurance

Yield-based

Revenue-based

Whole-farm

Non-insured disaster assistance (NAP)

III. Disaster Assistance

Supplemental Revenue Assistance Payments Program (SURE)

Livestock Indemnity Program (LIP)

Livestock Forage Disaster Program (LFP)

Tree Assistance Program (TAP)

Emergency Assistance for Livestock, Honey, Bees and Farmer-Raised Fish Program (ELAP)

Emergency (EM) disaster loans

Ad hoc disaster payments

Source: Based on Shields, D.A., J. Monke and R. Schepf (2010). Farm Safety Net Programs: Issues for the Next Farm Bill. Congressional Research Service, Report for Congress, R41317, Washington, DC, July 9.

Figure 1: EU CAP Expenditure 1980-2009

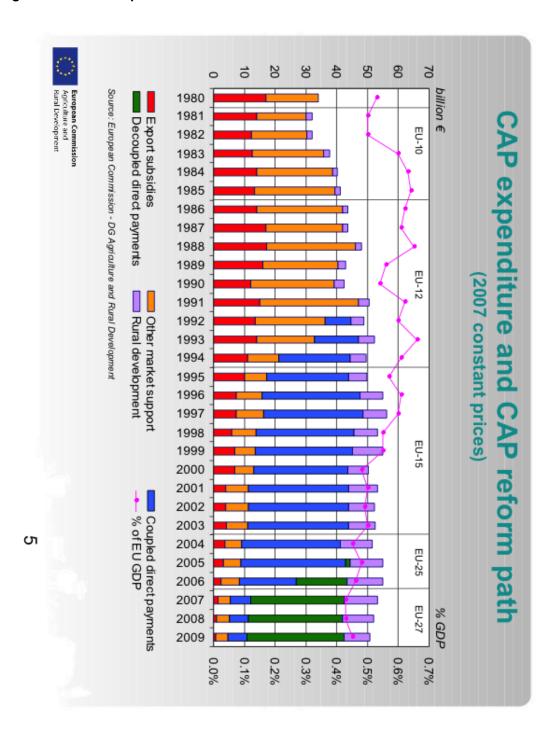


Table 3: Expenditures and CBO Baseline Projections for Major Categories of Farm Bill Spending (\$ billion)

Fiscal year	Commodities	Conservation	Crop insurance	Food stamps	Total
2002 Farm Bill actual					
2002	13.2	2.3	3.5	20.6	39.6
2003	12.1	2.8	3.6	23.8	42.3
2004	8.0	2.7	3.1	27.1	40.9
2005	14.1	3.4	2.7	31.1	51.3
2006	16.9	3.4	3.4	32.9	56.6
2007	8.0	3.5	3.8	33.2	48.5
2008 Farm Bill	2008 Farm Bill				
2008	5.7	3.7	4.1	37.7	51.2
2009	7.1	3.5	7.9	55.6	74.1
2010P	7.5	4.1	5.3	70.0	86.9
2011P	6.6	5.3	7.4	75.3	94.6
2012P	5.3	5.8	3.8	75.7	90.6
Continuation of 2008 Farm Bill					
2013P	6.3	6.0	7.5	74.3	94.1
2014P	6.4	6.1	7.7	68.8	89.0
2015P	6.5	6.1	7.9	65.6	86.1
2016P	6.4	6.5	8.0	65.6	86.5
2017P	6.4	6.7	8.1	65.5	86.7

Source: J. Monke and R. Johnson (2010). Actual Farm Bill Spending and Cost Estimates. Congressional Research Service, Report R41195, Washington, DC, December 13.

Table 4: Cost of the 2008 Farm Bill: Actual and Baseline Projections for Major Categories of Farm Bill Spending versus CBO Estimate at Enactment (\$ billion)

	Annual average		Total		
	(FY2008 – FY2012)		FY2008 – FY 2012		
	CBO estimate 2008	Actual 2008- 09 plus CBO baseline to 2012	CBO estimate 2008	Actual 2008- 09 plus CBO baseline to 2012	Difference from 2008 CBO estimate
Commodities	7.0	6.4	34.8	32.2	-2.6
Conservation	4.9	4.5	24.1	22.5	-1.7
Crop Insurance	4.4	5.7	21.9	28.5	+6.7
Food Stamps	37.8	63.0	188.9	314.9	+126.0
Total	54.1	79.6	269.7	398.1	+128.4

Source: J. Monke and R. Johnson (2010). Actual Farm Bill Spending and Cost Estimates. Congressional Research Service, Report R41195, Washington, DC, December 13.

Table 5: Range of Instruments available for Farm Policies in EU and US

Instrument type	Examples	Comments
Market Support and Price Stability	Border policies; stock ac- cumulation; futures market regulation	Border policies constrained by WTO; stocks expensive to maintain
Supply control	Set-asides; production quotas	Ineffective in open economies; poor use of resources
Direct Payments	Compensation payments; income support;	Limits on timescale of compensation; targeting necessary to avoid entitlement status
Crop and Revenue Insurance	Insurance against yield variability; insurance against revenue fluctuation	Need to comply with green box criteria; leakage of benefits to insurance sector
Rural Development Assistance	Training and management; assistance for local projects	Should be part of broader regional policy
Conservation and Environ- mental practices	Payment for conservation uses; stewardship payments	Integrate in with environmental programs
Demand-increasing mandates	Mandates for biofuels;	Subsidies should not be necessary
Consumer and user subsidies	Food stamp schemes; school milk and lunch programs	Are these politically viable without link with farm policy?
Quality Improvement	GI protection; safety protocols;	Politically acceptable instruments that can be "captured" for other purposes
Research and Development	Support for research activities; dissemination and extension	Small stakeholder constituency

Source: Authors' compilation

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About IPC

The International Food & Agricultural Trade Policy Council promotes the role of trade in creating a more open, equitable, productive and sustainable global food & agricultural system. IPC makes pragmatic trade policy recommendations to help solve the major challenges facing the global food & agricultural system in the 21st century—the need to promote global food security, to sustainably increase productivity, and to contribute to economic growth and development.

IPC convenes influential policymakers, agribusiness executives, farm and civil society leaders, and academics from around the world in order to clarify complex issues, foster broad stakeholder participation in policy deliberations, and build consensus around pragmatic policy recommendations. More information about the organization and its membership can be found on our website: www.agritrade.org.