2 The Common Agricultural Policy

The European Common Agricultural Policy (CAP) was developed as part of the 1957 Treaty of Rome that established the European Economic Community. The objectives of the CAP are set out in Article 39. Its original purposes included guaranteeing food supplies and providing a fair standard of living for farmers in post-war Europe. It did this primarily with price guarantees and income subsidies to farmers. Over time, these policies led to ongoing food surpluses, which were exported with the aid of subsidies, destroyed, or stored and sold in subsequent years.

The CAP has undergone significant reforms since the early 1990s, with the aim of improving its market orientation (box 2.1). While efforts to simplify the CAP are ongoing,[1] in some ways it is becoming more complex, providing EU member states with increased flexibility to choose and implement CAP policies within a common EU legal framework.

In this study, the focus is on the present policy framework — with a reference year of 2007 — which mostly reflects policy from the major reform program implemented in 2003. It is important to note, however, that the CAP is continually evolving and, while some of the 2003 reforms are yet to be fully implemented, other reforms have been agreed to since then and are being implemented.

The main elements of the current CAP are outlined in sections 2.1 to 2.4 of this chapter. The likely economic effects of these are then discussed in section 2.5.

1 For example, during the course of 2008, a single Common Market Organization (CMO) — the market regulatory tool governing the production of, and trade in, agricultural products in the European Union — was instituted progressively for all agricultural products, replacing 21 sector-based CMOs, so that a single set of harmonised rules is now applied by the single CMO in the areas of market policy.

Box 2.1 **Major CAP reforms**

- **1992** — The 'MacSharry' reforms reduced the reliance on market price support and introduced a greater emphasis on direct income support to farmers that was tied to producing certain goods. They also included limits to production to reduce surpluses, including through mandatory land set-aside. In addition, rural development measures were implemented, with a focus on improved environmental outcomes.
- **2000** — The 'Agenda 2000' reform enhanced the market orientation and environmental focus of the CAP. It integrated rural development policy within the institutional CAP framework, and implemented further reductions in intervention prices which were compensated for by direct income payments to farmers.
- **2003** — These reforms initiated the process of decoupling direct income payments from production, giving farmers the incentive to make their production decisions according to prevailing market conditions. They also redirected funding away from direct payments, toward rural development policies. Since 2003, there have been subsequent, more targeted reforms of the wine, fruit and vegetable and sugar sectors, aimed at increasing their exposure to market forces.
- **2008** — A 'Health Check' was introduced to adjust and extend the implementation of the 2003 reforms (appendix table A.1).

2.1 The current policy situation

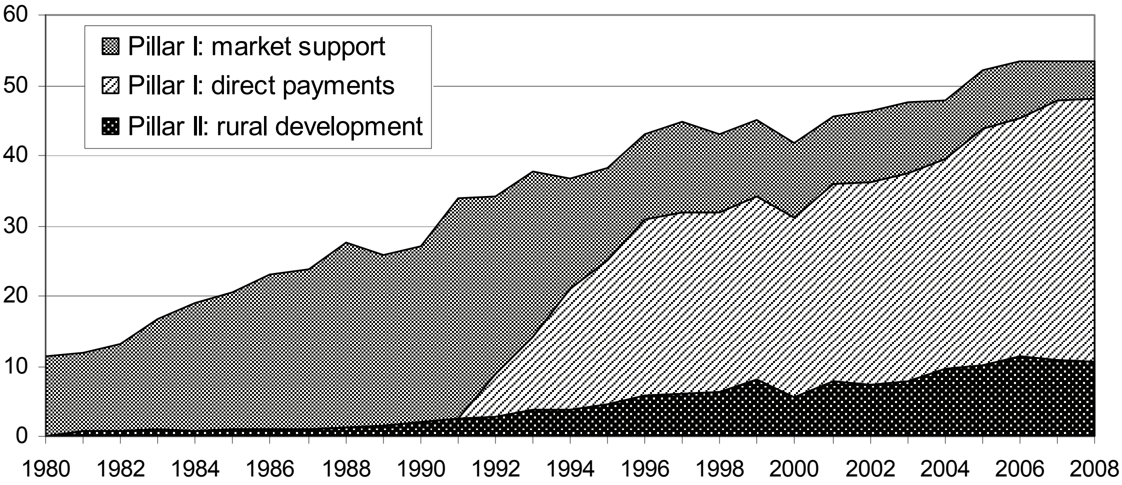
Expenditure on the CAP accounts for around 46 per cent of total EU budgetary expenditure. It is characterised by two CAP 'pillars':

- Pillar I — comprising market support and direct income payment programs, funded through the European Agricultural Guarantee Fund (EAGF)
- Pillar II — rural development programs, funded through the European Agricultural Fund for Rural Development (EAFRD).

Pillar I currently represents around 80 per cent of the EU budget devoted to the CAP, mostly in the form of direct income payments, with the remainder used to fund market support programs (figure 2.1). The declining share of expenditure on market support reflects reforms that reduced the reliance on market support and compensated farmers with direct payments. It also reflects high world prices for agricultural goods, which reduced the amount of market support as the gap between market and support prices narrowed (see section 2.2).

Figure 2.1 **European CAP expenditures by measure**

Billion Euros

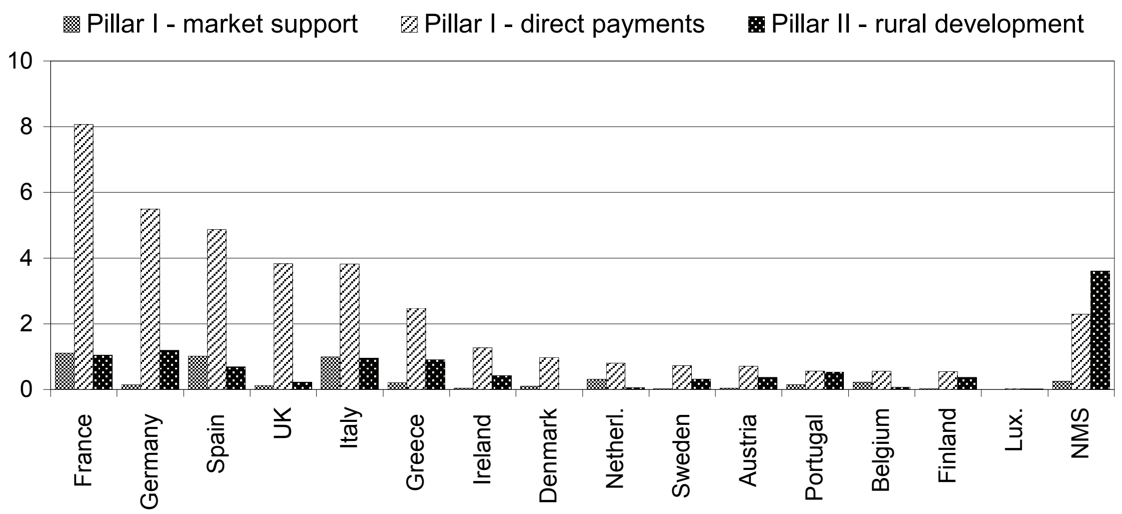


Data source: European Commission, DG AGRI, Unit I.1, pers. comm., 18 August 2009.

With the increased flexibility of EU members to implement and monitor their own CAP policies, relative spending between the first and second pillars varies greatly across member states (figures 2.2 and 2.3). Although most expenditure is on direct income payments in each of the EU15 countries (except Portugal), rural development expenditure accounts for a sizeable share in the NMS.

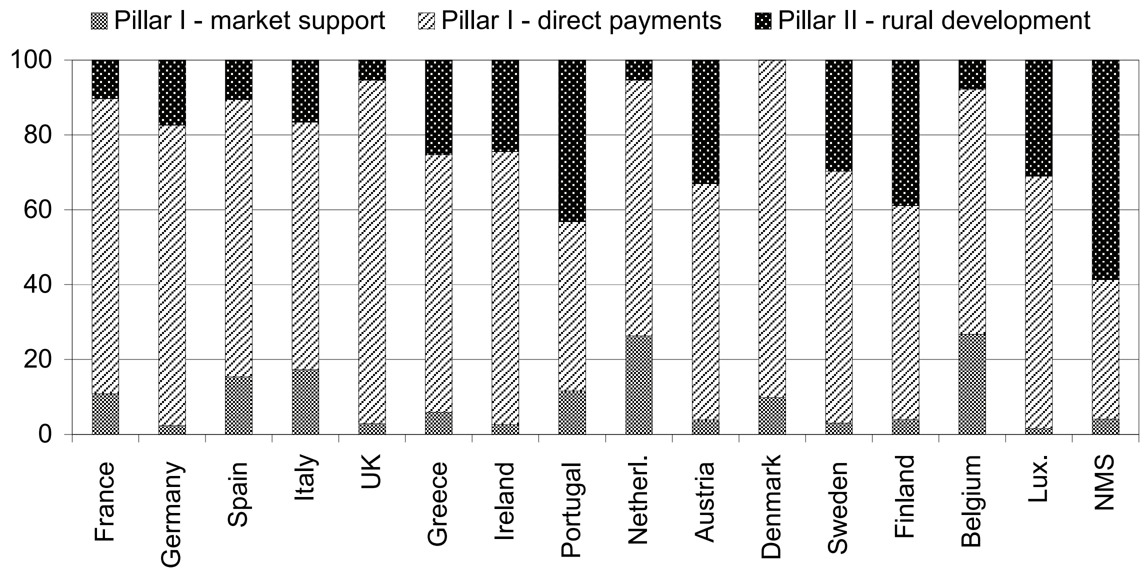
Figure 2.2 **CAP expenditures by member state: Pillar I and Pillar II**

Billion Euros, 2007



Data source: European Commission 2008c.

Figure 2.3 **CAP expenditures by member state: Pillar I and Pillar II**
Relative share, 2007



Data source: European Commission 2008c.

2.2 Pillar I

Market support measures

The predominant market support measure is the price guarantee to farmers for certain commodities. The level of the guaranteed price has been reduced steadily since the 1990s, but still remains significant for certain commodities.

Under the scheme, when the domestic price falls below the guaranteed price, the government intervenes to deal with any excess production until the domestic price returns to the guaranteed price. The excess production can be stored, destroyed or exported.

In the latter case, export subsidies are paid by the government to bridge the gap between EU guaranteed prices and world market prices. As a consequence, the unit cost of the subsidy and its total cost vary with changes in world prices, exchange rates and domestic prices. A necessary condition for maintaining guaranteed prices is the presence of trade barriers to prevent cheaper imports. This aspect of the CAP is discussed in section 2.4.

High world food prices over recent years have reduced expenditure on price guarantees, and recent CAP reforms have reduced the number of commodities eligible for price support.[2] Nonetheless, a range of products, including beef and cereals, retain price guarantees that give rise to budgetary expenditure. In recent years, budgetary expenditure has been mainly for export subsidies of sugar and milk (figure 2.4).[3] When world food prices decrease, however, expenditure to maintain price guarantees on commodities that are still supported would be likely to rise.

Market support measures other than guaranteed prices are diverse and sector-based, and can include:[4]

- funds for fruit and vegetable producer organisations designed to assist producers in marketing their output, especially in light of increased concentration in the retail sector
- distilling surplus wine into alcohol for consumption or for fuel, and removing vines in the wine sector[5]
- production quotas (mainly for sugar and milk),[6] which do not involve public funding
- land set-aside programs (compulsory or voluntary) with budgetary expenditures that are integrated into direct payments.[7]

These last two measures aim to reduce supply and raise prices, thereby supporting farm incomes.

2 For example, price support for pigmeat, maize, barley and sorghum has been abolished.

3 The market support expenditure presented in this chapter is distinct from the Market Price Support (MPS) estimates produced by the OECD. The OECD MPS includes price intervention measures, and also trade barriers, which are discussed separately in this paper (section 2.4). In addition, the MPS includes consumer transfers associated with higher domestic prices, which in this paper are discussed in section 2.5.

4 Appendix table A.2 contains a breakdown of market intervention expenditure by EU member state and sector.

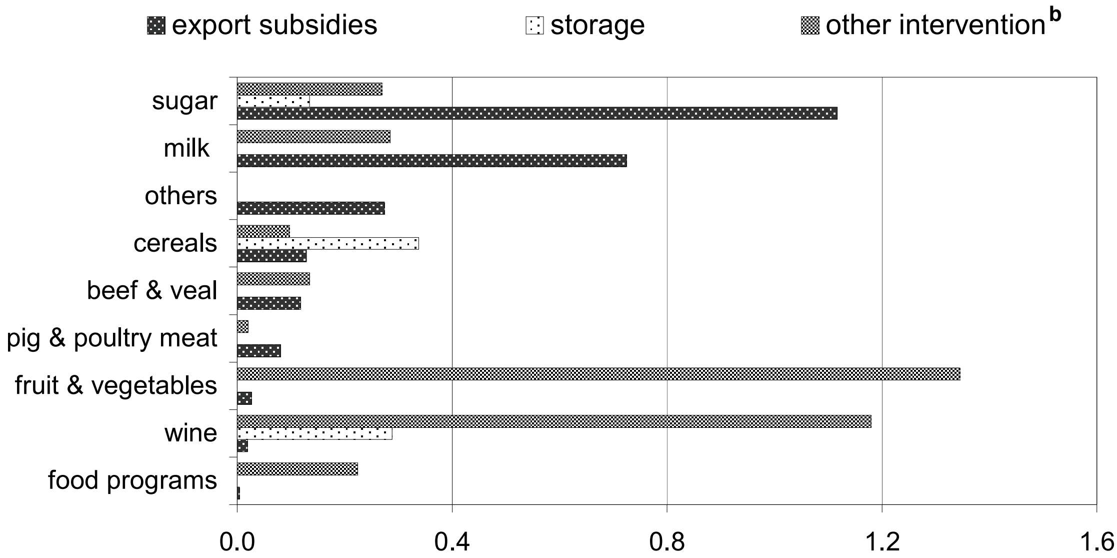
5 Under a 2008 reform of the wine market, distillation schemes will be gradually withdrawn over the four years to 2012.

6 Under the 2008 CAP Health Check, milk quotas will be increased by 1 per cent a year between 2009-10 and 2013-14, before being terminated by 31 March 2015. Under a 2006 reform of the sugar sector, sugar quotas are being reduced by around one third between 2006-07 and 2009-10 (WTO 2009).

7 Land set-aside was first introduced to prevent surpluses accumulating and was compulsory for large producers. Compulsory land set-aside was abolished under the CAP Health Check in 2008.

Figure 2.4 **Expenditure by sector and type of market support measure[a]**

Billion Euros, 2006



[a] Export subsidies for pig meat, fruit and vegetables and wine have now been abolished (WTO 2009). [b] Other intervention includes, for example, funding for producer organisations in the fruit and vegetable sector, and funding for the wine sector to distil surplus wine and grub up vines.

Data source: European Commission 2008a.

Direct income payments

Direct income payments were designed to compensate farmers for the decrease in guaranteed prices that began in 1992. They have traditionally been ‘coupled’ — that is, tied to either producing certain commodities (measured by areas planted to specific crops, or livestock animal numbers) or to using certain inputs in the production process.

While originally intended to be a compensatory entitlement, direct payments now resemble ongoing income support. There have also been efforts to break the link between income support and agricultural production to move toward more decoupled direct payments (box 2.2). Decoupled payments are designed to give farmers a guaranteed minimum level of income without the market distortions created by linking payments to the production of targeted commodities (see section 2.5).

Box 2.2 **Defining decoupled payments**

The definition of a decoupled payment can vary. There are two generally accepted definitions, one by the WTO and the other by the OECD.

The WTO's definition is more legal in nature, and based on ex ante policy design. It is essentially a checklist of requirements that a payment must fulfil to be considered decoupled. The economic effects of payments that fulfil these requirements, however, can still distort markets.

The OECD defines two forms of decoupling, based on ex post policy effects:

- fully decoupled — the equilibrium level of production, and any adjustments due to an external market shock, are unaffected by the measure
- effectively fully decoupled — the level of production is not affected by the measure, but the adjustment to an external market shock may be affected.

Full decoupling is more of a theoretical concept that is difficult to operationalise. Therefore, 'effectively fully decoupled' is used by the OECD as the practical definition of decoupling.

Source: Frandsen, Gersfelt and Jensen (2002).

The 2003 CAP reforms[8] strengthened the move toward decoupling payments by introducing the Single Payment Scheme (SPS), in which direct payments are unrelated to current production decisions (box 2.3). Also introduced were 'cross-compliance' conditions for payments, whereby payments are linked to farmers achieving certain environmental, animal welfare and quality standards. Cross-compliance makes full payment conditional upon land being maintained in good agricultural and environmental condition (according to standards established at national levels), and adherence to the pre-existing EU statutory management requirements regarding the protection of the environment, public, animal and plant health, and animal welfare.[9] Direct payments are funded entirely from the European budget, unlike the Pillar II rural development measures that are co-funded by each country.

8 For a detailed analysis of the 2003 CAP reforms, refer to OECD 2004.

9 Designed as additional incentives to comply with pre-existing regulation and often requiring little change to farm practices, cross-compliance payments can be interpreted as a subsidy that reduces farmers' out-of-pocket cost of operating in the existing regulatory environment (Alliance Environment 2007).

Box 2.3 **The Single Payment Scheme**

The Single Payment Scheme (SPS) is designed to cut the link between income support and production decisions. There are two basic SPS models:

- an historic model, in which payments to each farm are based on the amount of payments it received during a reference period (2000–2002), divided by the number of hectares farmed in the reference period
- a regional model, in which a flat rate of entitlement per hectare is paid based on the total amount of payments received in the region during the reference period, divided by the total number of eligible hectares declared in that region in the year the SPS was introduced.

Where the historic approach is applied, farmers who did not receive direct payments in the reference year are not eligible for payments under the SPS. However, entitlements are transferable in most countries.

Hybrid models have also been implemented, where a part-historic, part-regional model is used. These can be static or dynamic. In the static version, the entitlements remain the same over time. In the dynamic version, a proportion of the entitlement is based on an historical reference period, which is then phased out over time. A compensating flat rate payment increases concurrently, until the full entitlement is based on the flat rate. The most common SPS model is the historic model (table below).

The SPS exists in the EU15 member states and two of the NMS (Slovenia and Malta), and a transitory Single Area Payment Scheme (SAPS) exists in the remaining 10 NMS. The SAPS is a uniform payment per hectare of agricultural land, up to a national ceiling. The direct payments will be fully paid by the EU budget to the NMS once a phasing-in period is completed (2013 for all except for Bulgaria and Romania, for which the period ends in 2016).

SPS implementation models

Historic	*Regional*	*Static hybrid*	*Dynamic hybrid*
Austria	Malta	Denmark	Finland
Belgium	Slovenia	Luxembourg	Germany
France		Sweden	UK-England
Greece		UK-N.Ireland	
Ireland			
Italy			
Netherlands			
Portugal			
Spain			
UK-Scotland			
UK-Wales			

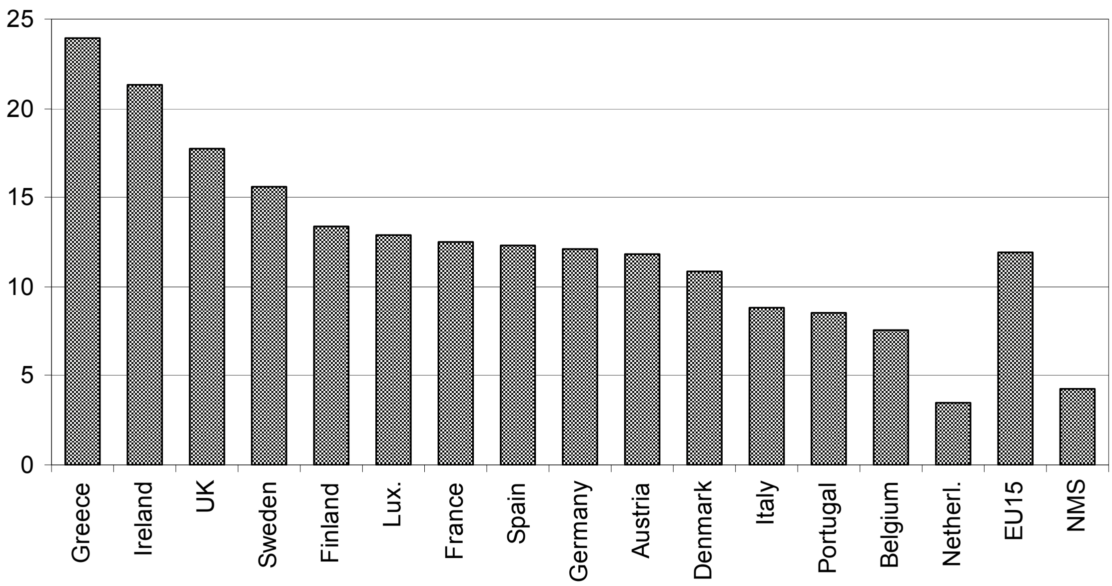
Sources: European Commission 2008e and 2009c.

Rates of assistance

The value of direct payments to each EU member, divided by the gross value of assisted agricultural output for that member, gives a measure of the relative level of assistance across the European Union.[10] Figure 2.5 shows that the most heavily assisted countries are Greece and Ireland, with rates of assistance above 20 per cent. This compares with the EU15 average of 12 per cent. The rate of assistance for the NMS is very low, at less than 5 per cent, both because these members are phasing-in direct payments since joining the European Union, and because they have a greater emphasis on rural development spending.

Figure 2.5 **Rate of assistance to agriculture from direct income payments[a]**

Per cent, 2006-07



a Direct payments divided by the gross value of assisted agricultural output.

Data source: European Commission 2008c, Eurostat 2008.

[10] The gross value of assisted agricultural output used in these calculations includes gross output of fruit and vegetables, even though this sector does not receive much by way of direct income payment support. Under a 2008 CAP reform of the fruit and vegetable sector, land devoted to fruit and vegetable production will become eligible for payments under the SPS, replacing existing support, mainly in the form of operational funds to producer organisations, currently worth around 800 million Euros.

Commodity-specific payments remain

Despite the implementation and management of direct payments occurring within an EU-wide framework, the 2003 CAP reforms provide member states with some flexibility in implementing the SPS, including the scope to retain a proportion of commodity-specific payments. Therefore, while there has been a large move toward a more decoupled payments system, direct links between support and production remain in some countries.

- Member states can maintain a proportion of product-specific direct support when production abandonment or severe market disturbances might result from moving to the SPS. The option applies to beef, cereals, cotton, goats, olive oil, seeds, and sheep, and the proportion allowed varies across commodities (appendix table A.3). Member states may also grant 'additional payments' to specific types of farming that are considered important for the protection or enhancement of the environment, or for improving the quality and marketing of agricultural products. These additional payments can use up to 10 per cent of the funds available under national ceilings in the SPS.[11] Additional payments therefore reduce the funds available for basic SPS and product specific payments.

Where commodity-specific subsidies still exist, they are generally defined per hectare for land-based commodities such as energy crops,[12] durum wheat, protein crops, and rice. In the animal husbandry sector, payments are generally based on herd size.

In the 2007 financial year, around 20 per cent of direct payments made in the EU15 remained commodity-specific, though this masks large differences in the shares across the EU15 member states (figure 2.6). Only Ireland, Luxembourg, Malta and the United Kingdom have moved fully to the SPS. Others have retained a sizeable proportion of commodity-specific coupled payments, including Portugal, Spain and the Netherlands (though absolute amounts are small, and therefore the effects are likely to be limited).[13] Of the payments that remain commodity-specific, more than 50 per cent are allocated to the crop and beef sectors (table 2.1).

The 2008 CAP Health Check introduced measures to move most payments that remain commodity-specific into the SPS by about 2012. According to the European

11 Article 68 (previously Article 69) of Council Regulation (CE) 1782/2003.

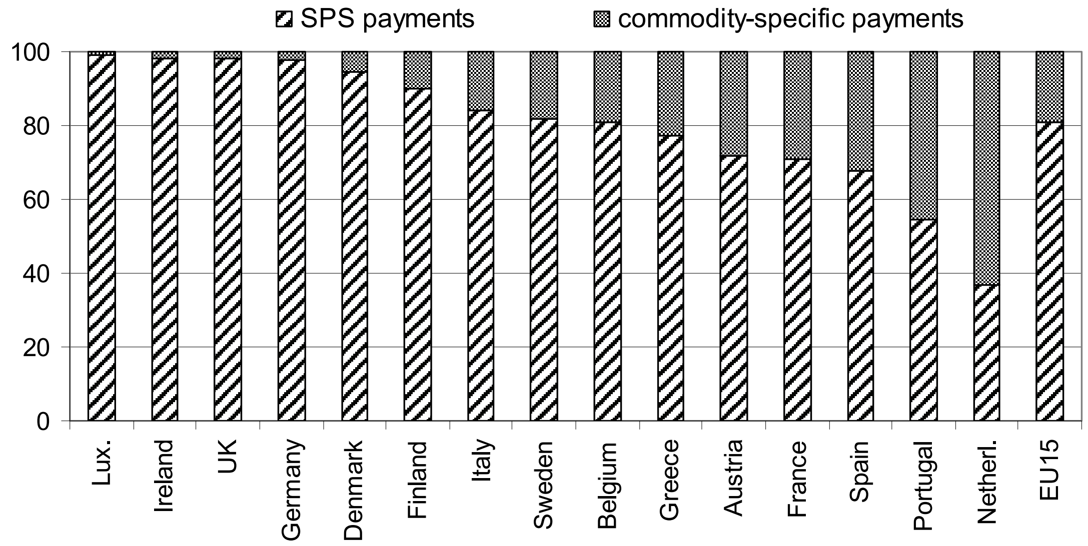
12 These are energy crops for the production of biofuels, and that provide biomass for the production of electrical and thermal energy.

13 See also appendix table A.3.

Commission, this will increase the level of 'decoupled' support as a percentage of all direct payments to over 90 per cent (WTO 2009).

Figure 2.6 **SPS and commodity-specific payment shares**[a]

Per cent, 2006-07



[a] The high share of commodity-specific payments in the Netherlands in 2006-07 reflects the decoupling of the dairy premium in the following year; the dairy premium accounted for around one quarter of all direct payments made in the Netherlands in 2006-07.

Data source: European Commission, 2008b.

Table 2.1 **Share of total commodity-specific payments by type**[a]

Per cent, 2006-07

	Aus	*Bel*	*Den*	*Fin*	*Fra*	*Ger*	*Grc*	*Ire*	*Ita*	*Lux*	*Net*	*Por*	*Spa*	*Swe*	*UK*	*EU15*
Cereals, oil seeds & protein crops	1.2	0.9	1.6	3.4	50.3	9.6	3.7	16.9	9.4	16.7	0.4	0.2	29.5	1.7	26.8	*27.3*
Beef	47.2	98.9	73.9	51.2	38.1	0.9		70.8	4.6	33.3	19.8	37.4	21.8	29.5	2.8	*27.2*
Sheep & goats			1.6	1.6	3.4		0.1	5.8	0.2			11.0	14.8		0.4	*5.3*
Dairy	50.0	..	..	..	..	..	4.2	0.6	0.1	..	75.5	25.6	..	62.3	..	*10.1*
Potatoes	1.4		19.5	7.8	0.7	43.1					4.2			2.6		*1.4*
Rice					0.4		2.2		17.1			4.4	3.2			*2.8*
Olive groves					..		2.3		..			0.2	7.2			*1.9*
Tobacco					1.9	24.4	4.8		31.9			2.8	4.3			*5.4*
Hops	..				..	2.8										*..*
Nuts	..				0.1	0.1	0.9		2.7		..	1.7	4.2		..	*1.4*
Energy crops	0.3	0.2	3.4	1.4	0.7	19.1		5.8	..	50.0	..	..	0.6	1.6	14.8	*0.9*
Silkworms							0.1						..			*..*
Dried grapes							22.2					..	0.1			*1.8*
Bananas					3.3		0.1					1.0	2.9			*2.0*
Sugar beet & cane									3.1							*0.3*
Cotton							38.4						4.0			*4.1*
Country specific payments				34.6			18.7		31.1			3.8	6.6	2.3	55.2	*6.7*
POSEI [b]					1.1		2.7		..			11.8	0.9			*1.3*
Other					..		..						..			*..*
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	*100*

[a] Blank cells indicate that no coupled payments are made in that country for that commodity. [b] The POSEI measures target agriculture in the European Union's remote regions, taking into account geographical and economic disadvantages.

.. between 0 and 0.05

Source: European Commission 2008b

2.3 Pillar II – Rural development programs

A comprehensive rural development policy was introduced in the Agenda 2000 reform package. It resulted in the second pillar of the CAP, which pulled together past and new agricultural environmental and territorial schemes. Further changes were introduced under the 2003 CAP reforms, to promote sustainable agriculture and rural development objectives.

The size of the EU budget allocated to the second pillar is significantly smaller than that of the first pillar. A modulation mechanism reduces the direct payments granted to the EU15 within the first pillar and transfers that amount to the rural development budget.[14] The rate of modulation is 5 per cent per annum and, under the recent Health Check, this rate will increase progressively to 10 per cent per annum by 2012. The NMS are exempt from modulation until the transition to the full level of direct payments is achieved in 2013.[15]

Rural development measures are co-funded by the European Union and individual member states.[16] On average, around half of the financing comes from the EU budget, with the other half financed by member states (WTO 2007), though the level of co-funding can vary significantly across member states.

Rural development measures are divided between three main axes corresponding to three core objectives:

- Axis 1: *Improving the competitiveness of agricultural and forestry sectors* — provides a range of measures to target human and physical capital in the agriculture, food, and forestry sectors, and high quality production.
- Axis 2: *Improving the environment and supporting land management* — provides measures to protect and enhance natural resources, as well as preserving forestry systems and cultural landscapes in rural areas.
- Axis 3: *Improving quality of life in rural areas and encouraging diversification of the rural economy* — develops local infrastructure and human capital in rural areas to improve the conditions for economic growth and job creation, and the diversification of economic activities.

There are two additional elements to the rural development program:

14 The modulation is applied to the entire annual amount of direct payments per farm, except the first 5000 Euros of direct payments per farm holding.

15 2016 for Bulgaria and Romania.

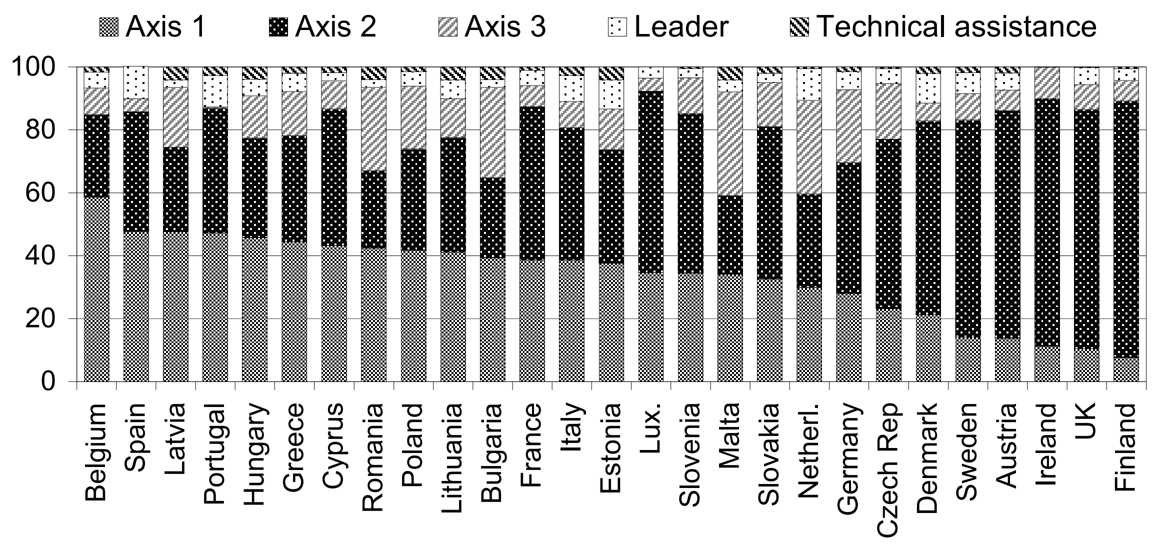
16 Council Regulation (EC) 1698/2005 of 20 September 2005.

- Leader Axis: *Developing local partnerships to mobilise and develop rural communities* — complements the three axes by introducing locally based, bottom-up approaches to sustainable rural development, with a focus on partnership and network exchange experiences.
- Technical assistance: support to ensure that synergies between and within the axes are maximised and potential contradictions are avoided.[17]

The selection and implementation of rural development measures is decentralised in order to consider better the needs of individual rural areas. Accordingly, member states are responsible for setting their own rural development strategy plan, at the national or regional level, for a seven-year period (the policy is currently in its second programming period). Nonetheless, the European Commission imposes minimum shares of expenditure for each axis — 10 per cent for Axis 1, 25 per cent for Axis 2, 10 per cent for Axis 3 and 5 per cent for Leader Axis — and each member state's programs must be approved by the Commission.

There is significant divergence between member states in their rural development policy focus, as reflected in the distribution of payments across each of the axes (figure 2.7).

Figure 2.7 **Rural development measures by axis, EU and national expenditures, 2007–13 financial period[a]**
Per cent



a In the Irish plan spending on Axis 3 and Leader Axis is combined.
Data source: Calculations based on 85 rural strategy plans (national and regional) as at May 2008.

17 Council Decision of 20 February 2006 on European Community strategic guidelines for rural development (programming period 2007–2013).

2.4 Border protection

The European Union protects the agricultural sector with various import duties — ad valorem and specific tariffs, and tariff rate quotas.[18] Tariff protection of agriculture, as well as food processing, is higher than that for the rest of manufacturing (table 2.2). In general, agricultural and processed food goods with the largest domestic production presence in the European Union receive the highest rates of protection. For example, cereals have an average most favoured nation (MFN) tariff rate of about 50 per cent. Agricultural goods generally not produced in the European Union tend to have lower levels of protection (see appendix table A.4).

Table 2.2 **EU applied MFN tariff rates**
Per cent, 2008

Description[a]	*Simple average tariff*	*Range*
Agriculture and hunting[b]	9.9	0-139.6
Manufacture of food, beverages, tobacco	19.4	0-604.3
Manufacturing (excluding food processing)	3.8	0-89.8

[a] ISIC (Rev. 2) definitions. [b] Import duties for durum wheat, high quality soft wheat, rye and sorghum were suspended between December 2007 and June 2009 (European Commission 2008b).

Source: WTO 2009.

The European Union grants preferential tariff rates on imports of agricultural products and processed food from some countries and regions. Duties on imports from many European countries outside the European Union, as well as from least developed countries, are particularly low (1–2 per cent). Outside of these areas, there has been limited liberalisation under preferential trade agreements.

The European Union's dispersion of protection is very high, with a large variation in rates of protection across trade partners, and across products due to tariff peaks on a few agricultural commodities such as sugar, meat and dairy (Bouet et al. 2008).

Of the import duties imposed on agricultural products and processed food, a little over half are ad valorem tariff rates. Another 30 per cent are specific tariffs.[19] In

[18] A tariff rate quota is a two-tier tariff regime. Imports within the quota enter at a lower (in-quota) tariff rate, and a higher (out-of-quota) tariff rate is used for imports above the concessionary access level.

[19] Across the entire tariff schedule, around 10 per cent of tariffs are non-ad valorem rates which can be specific, compound or mixed rates. All of these are applied to agricultural products. All tariff rates greater than 100 per cent are also for agricultural products.

addition, in 2006 the European Union had 91 tariff quotas on agricultural products that were managed by the Commission through a licensing system (WTO 2007).

2.5 Assessing the cost of the CAP

Market support and trade barriers

Market support — mainly through price guarantees — and trade barrier measures are used to raise the income of farmers. They affect both domestic and world markets. The world market effects can be especially pronounced in the markets for goods for which the European Union is a relatively large consumer or producer or both. Market support and trade barrier measures distort EU and world markets and tend to transfer income from consumers to farmers. This usually results in a loss of welfare in the European Union, and in the rest of the world. This is illustrated with a partial equilibrium framework in figures 2.8 and 2.9.

In figure 2.8, in the absence of any distorting policy measure, the European Union is assumed to be an aggregate exporter of the good (left hand panel) and the rest of the world an importer (right hand panel) with the internationally traded price at P_t and the world traded quantity at X_t (middle panel).

In this policy scenario, the European Union implements a guaranteed price of P_g. With EU producers and consumers now facing this higher price, output increases to S_g, and consumption decreases to D_g. The excess supply (S_g - D_g) is exported to the rest of the world.

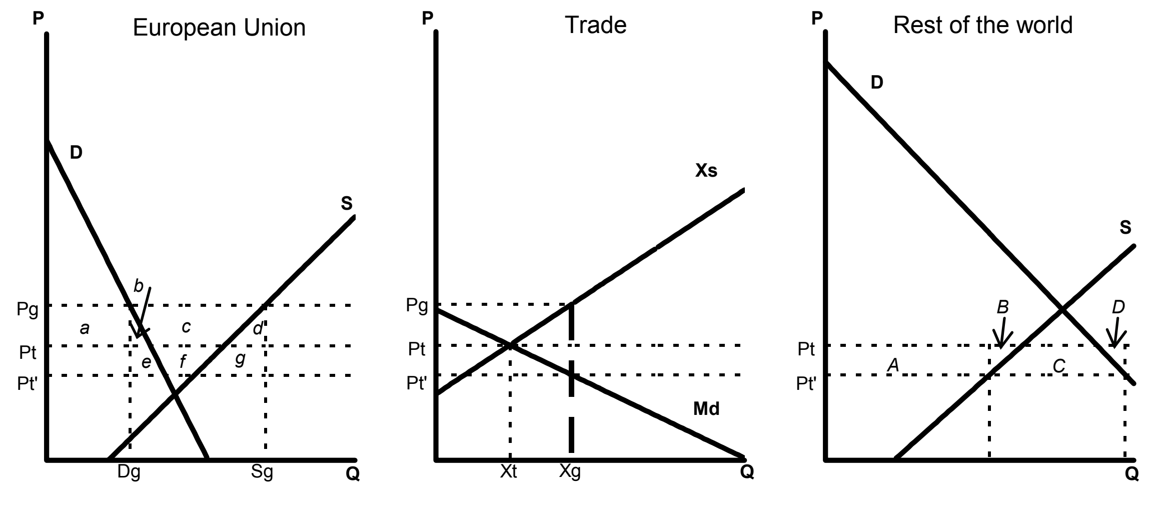
The new level of exports X_g is greater than the free trade quantity of X_t. Indeed, with the European Union guaranteeing farmers a price of P_g, and imposing this price on EU consumers, the export supply schedule becomes vertical at all prices below P_g. This new export supply curve intersects the import demand curve at the price P_t'. This causes the rest of the world to import more. To prevent domestic consumers from importing the good at a price below P_g, the European Union would need to impose a tariff of at least (P_g- P_t') to sustain the price guarantee.

In the European Union, producer surplus increases due to the price guarantee by the area (a+b+c). Consumers are made worse off by the area (a+b) due to the higher price they pay and the smaller amount they consume. To dispose of surplus production on the world market at the world price, the government must fund the difference between P_g and P_t' for each additional unit exported. This 'export subsidy' is equivalent to the area (b+c+d+e+f+g). Overall, the European Union is therefore made worse off by the area (b+d+e+f+g). Of this welfare loss, the area (e+f+g) is due to a fall in the price of exports to the rest of the world.

In the rest of the world, welfare increases — producer welfare decreases by area (A+B) but consumer welfare increases by area (A+B+C) leaving a net welfare gain of area (C).

Lower import prices generate a transfer of area (B+C+D) to the rest of the world from the European Union — equivalent to area (e+f+g). The rest of the world, however, only receives area C. There is a dead weight loss to the rest of the world equivalent to area (B+D). The combined welfare effect on the European Union and the rest of the world is therefore a loss equivalent to the area (b+d+B+D). This loss reflects the cost of switching production from more efficient producers in the rest of the world to European producers, and from switching consumption away from European consumers to the rest of the world.

Figure 2.8 **Effects of a guaranteed price**



The European Union also uses border protection to help shield domestic markets from import competition. In figure 2.9, under free trade, the European Union is an importer of the commodity, with the equilibrium price at P_t, domestic production at S_t and domestic consumption at D_t (left hand panel).The import demand schedule of the European Union is represented by M_d in the middle panel.

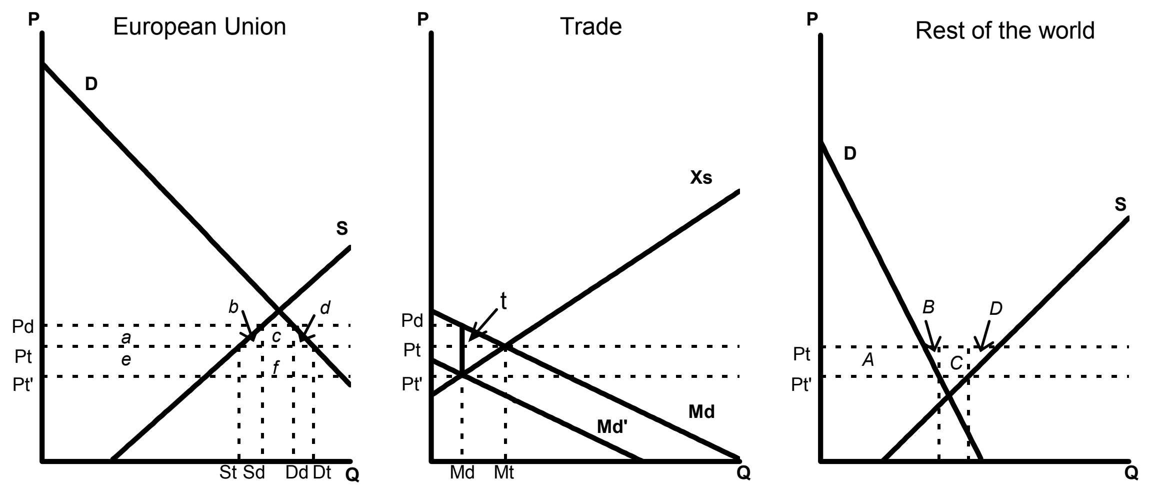
In this scenario, the European Union implements a specific tariff that increases the domestic price in the European Union to P_d. At this price, domestic producers increase their production (S_t to S_d) and consumers demand less (D_t to D_d).

The tariff causes the import demand schedule of the European Union to shift down from M_d to M_d' by the amount of the tariff (t in the middle panel). This causes the traded price to fall from P_t to P_t', and the quantity traded to fall from M_t to M_d.

In the European Union, producer surplus increases by area (a) because farmers receive a higher price. Consumer welfare decreases by area (a+b+c+d). The government receives revenue from the import tariff equivalent to the area (c+f). The net welfare effect in the European Union is ambiguous, represented by area (f-(b+d)). Area (f) represents an increase in welfare from a lower price for EU imports, and the area (b+d) represents the deadweight loss created by the tariff.

In the rest of the world, the lower traded price causes producer surplus to decrease by area (A+B+C+D) and consumer welfare to increase by the area (A). The rest of the world therefore loses overall by area (B+C+D), which includes a loss from the decrease in the price it receives for its exports of area (C), equivalent to the European Union's gain from lower import prices, area (f). The combined welfare effect on the European Union and the rest of world is therefore a loss, corresponding to the area (b+d+B+D).[20]

Figure 2.9 **Effects of an import tariff**



Market support and trade barrier measures can also induce a switch in the trade orientation of agricultural goods for the European Union. For example, under free trade, the European Union may be an importer of a particular agricultural good, represented by a world price below the equilibrium in the EU market. Imposing a

[20] The effects of other forms of border protection such as import quotas are similar to those of a tariff as described here.

large enough guaranteed price could increase the domestic price of the good sufficiently to induce a switch from importing to exporting the good.

Direct income payments

The OECD generally analyses decoupling as a continuum of degrees of decoupling because, in reality, no payment is 'truly decoupled' — a truly decoupled payment is one that would not alter the level or composition of output, or the adjustment to economic shocks, that would occur in the absence of any support (box 2.2). The degree to which payments are decoupled determines how much they distort the market outcome away from the efficient outcome. The OECD has a large body of analysis on the issue (see, for example, OECD 2001, 2005a and 2005b) which is drawn upon in this paper.

The distortions associated with any direct payment other than a truly decoupled payment can be summarised as follows.

- Cross-commodity effect — payments can affect the relative prices that farmers face and the relative profitability of producing one agricultural commodity over another (or using one input over another). These payments can affect the allocation of resources within agriculture, thereby altering the production mix.
- Aggregate supply response — payments encourage a movement of resources out of other industries, into agriculture, that would otherwise not occur. This leads to an expansion of overall agricultural output, and a contraction of output in other industries, such as manufacturing.[21]

The magnitude of these effects depends on the mobility of factors of production. In the case of cross-commodity effects, the mobility of factors within agriculture matters. See Gohin, Guyomard and Le Mouël (2000) and Frandsen, Gersfelt and Jensen (2002) for a discussion of how factor mobility affects the direction and magnitude of the cross-commodity effects of direct payments.

In the case of the aggregate supply response, the mobility of factors across different sectors matters — for example between agriculture and manufacturing. Where they are very mobile, there will be stronger resource reallocation away from other industries into farming. Where an input is either less mobile or in fixed supply, such as agricultural land, any potential aggregate supply response will be dampened,

[21] In a dynamic sense, coupled support can also influence farmers' investment decisions, insofar as investment decisions are affected by current production decisions (Frandsen, Gersfelt and Jensen, 2002).

depending on the degree of substitutability of this input with other inputs (Frandsen, Gersfelt and Jensen 2002).

According to the OECD (2005b), payments based on variable input use are the most distortionary kind, followed by payments based on output. These sorts of payments are characteristic of the coupled, or commodity-specific payments of the CAP, which are specifically tied to producing certain commodities, or to using certain inputs into production.

Decoupling payments

Payments based on the area of land used in agricultural production are generally the least distorting, especially if payments are made based on historical references and if few or no conditions are imposed on the use of eligible land (OECD 2005b). In this case, if inputs are perfectly mobile across agricultural activities there will in theory be no cross-commodity effects (Frandsen, Gersfelt and Jensen 2002).

In the case of the move toward a greater degree of decoupling through the SPS of the CAP, however, cross-commodity effects can still take place. Firstly, agricultural inputs including machinery and buildings can be highly specialised and therefore relatively immobile in the short to medium term, resulting in potentially large cross-commodity effects. Secondly, even when payments are based on historical entitlements, if current conditions play a role in distributing payments, incentive effects can occur. Cross-compliance conditions attached to SPS payments are a good example; these conditions can affect production patterns (box 2.4).

Indeed, it is sufficient for payments to be contingent on the recipient being involved in farming for the measure to have some effect on production patterns. As the historical area based payments of the SPS require that recipients carry out (or not carry out) some agricultural activity on the land, there can still be an effect on production (OECD 2005b). Whether there is an effect depends on whether the conditions are binding — if they are not, production decisions will not be affected by the SPS, but and if they are, the farmers' actions will change in response to the payment.

Although lump sum income payments, with no requirements on production, may prevent cross-commodity effects, they can still induce an aggregate supply response. Lump-sum income payments can alter the incentive structure such that it becomes more profitable for some farmers to stay in the sector rather than to leave. That is, payments may induce an unprofitable farmer who would otherwise exit the industry to keep on producing, as the payments cover the losses from farming. It can also make it more costly to enter the industry, since payments could be capitalised into land and make it more expensive for new entrants to purchase land (Van Tongeren 2008).

Furthermore, there may be incentives for farmers to maintain large production quantities as insurance against the possibility of losing established entitlements. This may occur if the government were to perceive, through a review process, that some future level of production is too small to warrant ongoing support (Roberts and Gunning-Trant 2007).

Existing policy landscape

The existing landscape of support is a crucial factor in determining the effects of any attempt to decouple support. Unless a new payment system results in the same level and composition of production and trade that would prevail if all existing coupled payments were removed, it cannot be considered to be fully effectively decoupled, and some distortions will be maintained (Roberts and Gunning-Trant 2007).

Box 2.4 **Economic effects of cross-compliance measures**

Cross-compliance measures make assistance payments conditional on farmers achieving certain environmental and animal welfare standards in production. These requirements aim to address social and environmental objectives, while also providing direct income support to farmers. Importantly, cross-compliance requirements in the European Union are already enshrined in existing legislation. Cross-compliance therefore aims to increase the effectiveness of enforcement of these established laws.

Cross-compliance measures can create incentives to change production patterns, or induce a change in production methods and commodity yields. The extent of these effects depends on the nature of the requirement, the cost of compliance and the cost structure of production across commodities. For example, animal welfare requirements affect livestock farmers but not crop farmers, and the limitation of the use of pesticides could affect crop farmers more than livestock farmers.

The cross-compliance regulations can increase unit costs for farmers. This shifts up the supply curve for farmers and, as a result, can lower output and increase prices. Evidence to date suggests that the majority of cross-compliance obligations have had little or no direct impact on farm production costs. The associated direct income payment, however, will tend to shift the supply curve back down. The net effect on production and prices is ambiguous; accurately measuring the cost of cross-compliance measures is therefore difficult and would require detailed, probably partial equilibrium, modelling.

There may be significant externalities ensuing from cross-compliance that would require consideration when evaluating the net impact of the measures on society, but which are inherently difficult to measure. For example, the impact of cross-compliance measures on the agricultural sector can depend on the willingness of society to pay for the cost of meeting enhanced environmental and animal welfare standards.

Sources: Alliance Environnement 2007, OECD 2005b and Van Tongeren 2008.

Furthermore, although direct payments may be ‘decoupled’, the overall system of support might not be if other distortionary support is in place (Roberts and Gunning-Trant 2007). Therefore, even if the SPS were considered to be a fully decoupled direct payments system, as long at is coexists with market support and trade barrier measures, market outcomes will be distorted.

Other effects of decoupling

Looking beyond its effects on production, decoupling can also improve the income transfer efficiency of payments — that is, more of the payment ends up as income to the farm household — and reduce the administrative and compliance costs associated with payments. However, when based on historical entitlements, decoupling can preserve a distributional pattern of support and thereby perpetuate any inequities associated with support that was previously linked to production volumes — for example, larger farms can tend to be rewarded more than smaller farms (Van Tongeren 2008).

Measuring the effects of decoupling

The overall effect of decoupling on both agricultural output and its composition must be determined empirically. It is, however, difficult to estimate the effects of the SPS payments on EU agricultural output. This is because the system has only been in place since 2005, providing only a few years of data, and because the movement to the SPS has been incomplete, with commodity-specific, or coupled, payments remaining.

Since some countries, such as France, Spain, Portugal and the Netherlands, maintain a high degree of coupled payments, it is reasonable to expect, in the absence of data, that such payments induce cross-commodity effects. An aggregate supply response would also be expected as resources shift into agriculture away from industries where the marginal product of these resources may be higher.

Rural development programs

The eligible measures under the four rural development program axes are wide-ranging (see box 2.5). The complex mix of measures makes it difficult to identify the beneficiaries of these payments which, in turn, raises challenges for estimating the overall economic impacts of rural development payments.

Box 2.5 **Selected rural development measures**

Rural development measures that qualify for funding under Pillar II are diverse. The following is a sample of this diversity within the three main axes.

Axis 1: competitiveness

- Vocational training and information actions
- Setting up of young farmers
- Farm modernisation investment assistance
- Participation of farmers in food quality schemes

Axis 2: land management

- Animal welfare payments
- Less favoured areas payments
- Agri-environmental payments
- Organic farming consolidation payments
- Restoring forestry production potential

Axis 3: wider rural development

- Diversification into non-agricultural activities
- Village renewal and development
- Training and information
- Conservation and upgrading of rural heritage
- Encouraging tourism activities

Source: European Commission 2006.

Many of the measures tend to increase the cost of production for farmers (shift the supply curve up). If the government funds these measures by the exact amount of their cost, in the short term there would be no effect on output and prices. In the longer term, however, the measures themselves can induce a shift in supply. For example, measures such as training and the adoption of new technology can increase productivity and shift out the supply curve. There can also be effects on demand. Consumers may value some of the subsidised initiatives, such as more environmentally sound production processes, or improved animal welfare. If so, their willingness to pay for agricultural goods could increase (the demand curve shifts up). Once all of these factors are taken into consideration, the net effects on output and prices are ambiguous.

An additional consideration is whether the funded measures would have occurred anyway, in the absence of assistance. For example, if farmers have already budgeted for training and development, then providing a subsidy could simply encourage an expansion in agricultural output.

Apart from the direct costs and effects within the agricultural market, many rural development measures may create positive externality benefits to wider society. These could arise from improved environmental outcomes, animal welfare conditions and rural landscapes. These form part of the net welfare effect of rural development funding, but can be very difficult to quantify.