The CAP and cohesion policy are the main expenditure titles of the common budget. CAP measures are financed as follows:

- market support and direct income payments (first pillar) are fully covered by the common budget in accordance with the principle of financial solidarity;
- rural development (second pillar) is financed in accordance with the principle of additionality (co-financing).

The CAP reform introduced in 1992, the further reforms of 2000 and 2003, and the modification as part of the Health Check have not resulted in the reduction of the CAP budget. However, there has been a significant change in the structure of the support. Especially the decreasing ratio of market support is obvious. At the same time the ratio of direct payments has increased, amounting to 70% of total agricultural support. Their ratio will further increase by 2013. The ratio of rural development expenditure has also increased from the mid 1990s. Table 1 shows the ratio of agricultural support to GDP.

The common budget differs from the national budgets. Its primary function is to promote common and Community policies, activities and objectives, i.e. it is not a miniature of the national budgets for its structure is different. A much higher rate of centralisation compared to federal states is indicated by the data in Table 2. (Note that the high rate of centralisation is not the outcome of the common budget, which amounts to 1.1 per cent of the GDP.)

The common budget and especially CAP related expenditure has been the subject of debate for various reasons. The budget related disputes on the mid-term financial perspectives for 2007-2013 chiefly focused on the Common Agricultural Policy. Several experts considered the CAP related expenditure as money found and the possibility of the “found money” piqued interest throughout the Union.

In May 2006, the European Parliament, the Council and the Commission agreed that the Commission should undertake a fundamental review of the EU budget. The budgetary review offers an open approach without taboos (a threat to the CAP). Under the consultation process of the budget review most of the contributions were very critical as regards the CAP and its common financing. There is a widespread consensus that further reforms are necessary in order to accommodate agricultural policy to current priorities. Opinions differ, however, on the extent of the reforms. Most of the contributions stress that European agriculture should be competitive internationally and should be able to answer the challenges of climate change, food safety and quality requirements. Current expenditure levels and mechanisms are not based on these requirements. Most of the contributions urge a significant reduction in agricultural expenditure and radical reforms especially as regards the first pillar. Several contributors would like to see the first pillar expenditure moving to the second pillar. There is no consensus on the future of direct payments (continue or abolish). Although there are clear expectations concerning the reduction of agricultural expenditure, total re-nationalisation of agricultural policy has not been mentioned. It is evident, however, that the CAP can

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1 She is now the President of Lithuania.
2 Literature on the CAP is very widespread. We cannot go into details but simply try to indicate the significance of the problem.
4 For details of the budgetary review see http://ec.europa.eu/budget/reform/index_en.htm.
no longer be maintained in its current form. The CAP should be placed on an entirely new basis in order to make it sustainable (from an economic, environmental and social point of view) in the long run.

Common Financing in the Light of Fiscal Federalism

Fiscal federalism is the most frequently applied theory in the literature to try to answer the question as to how the responsibility for policies and their financing could optimally be distributed among the EU and its member states.

Fiscal federalism suggests that there are basically three reasons for government interventions: stabilisation, equalisation and allocation (Musgravian classification). Stabilisation refers mainly to macroeconomic stability but it can cover security too. The main function of equalisation is to manage income inequalities but may extend to risk sharing (insurance). The allocation function aims to correct market failures. There are four major areas of market failures which may invoke government intervention: public goods, externalities, economies of scale and information asymmetry.

Based on the above criteria an intervention test can be made for the EU’s different policy areas, examining whether there is a need for government intervention in a specific area. Based on the literature we arrive at the conclusion that common policy is justified only if it corrects EU level market failures (with an effect on the whole Union and not only on certain member states) or contributes to an explicit EU equalisation or stabilisation objective.

Most Efficient Level of Intervention

If the intervention test suggests that government intervention is justified in a particular area, the next step is to decide at what level the intervention would be the most effective. The theory of fiscal federalism says that higher level intervention is justified if it aims to internalise externalities or to exploit economies of scale. As regards externalities, higher level intervention is required in case of cross-border externalities, especially if they have positive spillover effects. When policy dependent sunk costs are high, or there are other central factors which may reduce average costs, centralised policies aimed at exploiting economies of scale may have welfare increasing effects.

On the other hand, if regional preferences show large heterogeneity as regards the solution of a particular problem, decentralised policies should be preferred, because then policies can be differentiated according to local preferences and conditions. In addition, ac-
According to the principle of fiscal equivalence, measures should be financed on the same level as they are designed, where the beneficiaries and taxpayers are more less the same.\(^8\)

The trade-off between centralisation and decentralisation has led to the formulation of the functional subsidiarity principle. With the help of the functional subsidiarity test\(^9\) we can determine the ideal level at which decisions should be taken: centralised intervention is necessary only if the member states could not credibly cooperate on a given policy issue. The probability of a credible cooperation is especially low in the case of imperfect information, when the incentives to cheat are strong, when the ability or willingness to impose collective sanctions is perceived as minimal, when efficient provision of public goods should not be expected, Coasian assumptions for efficient bargaining (well-defined property rights, no transaction costs) seem to be absent in reality, when free-rider effects may be significant.

Political economics provides further aspects especially as it explicitly integrates self-interested governments. Further arguments for centralisation are: complementary policies, corruption, strong lobbying effects and path-dependency (it is difficult to give up a practice with deep roots). Decentralisation should be preferred, however, if governments pursue their own interests in contrast to the public interest. If this is accompanied by strong lobbying effects, local preferences cannot be perfectly enforced, which can result in a welfare loss. Another argument for decentralisation is accountability, which seems to be easier in the case of decentralised governments. We should also consider the allocation problem of the community resources (common pool). Arguments for centralisation and decentralisation are summarised in Table 3.

### Budgetary Principles

If the analyses show that centralisation is the most efficient form of intervention, the next question to be answered is: Is it justified to finance the intervention from the common budget? In order to answer this question, the policies in question should be confronted with the (common) budgetary principles: subsidiarity, proportionality, additionality, value for money, enhancement of the provision of public goods and value added (at European level). (Cf. Table 4.)

### Methods of Intervention

The literature basically suggests four methods of addressing the allocation problems:

- **Rules, regulations and directives (legal approach with administrative measures).** This is the most cost-effective method; however, its applicability is limited. It is used mainly in the case of negative externalities and information asymmetries.
- **Coase-like solutions (legal-economics approach):** assigning property rights and creating (transparent) markets. (Private bargaining will lead to the internalisation of externalities.)
- **Semi**-governmental production. The actual provision of specific public goods may be done by private firms (semi-governmental production), since this may be more cost-efficient.
- **(Pigouvian type) subsidies or taxes (welfare approach)** can be applied for externalities. The limits of this solution are the following: marginal utility has to be measured, the subsidy cannot exceed marginal cost and the subsidy has to be financed.

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Income and risk inequity problems can be addressed by taxation, subsidisation, insurance systems and state guarantee. The choice among policy measures should be based on a cost-benefit analysis.

**Is Common Financing of the CAP Justified?**

We now confront theoretical categories with the reality of the CAP, applying a simple, verbal intervention test. As regards the CAP, the allocation and equity functions of the interventions can be stressed. Table 5 shows the most important allocation and equity functions of the CAP. The allocation function aims to correct market failures. Agriculture is a special area of the economy, where all four main forms of market failures can be found.

**Public Goods**

As Table 6 shows, agriculture and, in a wider sense, rural areas can provide a wide range of public goods and (positive and negative) externalities. Several problems may arise however as regards the evaluation of these public goods and externalities.

Most of the public goods involve some kind of stock feature\(^\text{10}\) (stocks of pollution, stocks of knowledge, biological or genetic stocks etc.) By their nature, stocks accumulate, often very slowly, so that it may be difficult to recognise the symptoms of the disease until it is too late to cure. Moreover, because stocks accumulate slowly, stock externalities often have long-lasting consequences and are irreversible or near-irreversible. One of the major difficulties with managing public goods (that have stock features) is that they impose costs on the current generation while the benefits may come far in the future. From a political point of view, this implies that any bargain is a negative sum game (i.e. there is no Pareto-improving solution) for the current generation.

In sum, we can arrive at the conclusion that, without support, the level of agricultural public goods would fall behind the socially optimal level. At the same time, the current level of support is disproportionately high (from the public goods point of view). Moreover, the current support system is insufficiently targeted.

**Economies of Scale**

In the case of certain public goods – according to the OECD\(^\text{11}\) – there may be economies of scale that necessitate provision by large jurisdictions (central government), since it may be impossible to create the right incentives for efficient decentralised provision. For example, Grethe\(^\text{12}\) states that preservation of cross-border wildlife habitats is a typical case for economies of scale.

Economies of scale may also arise from the inter-regional nature of the re-distributive programmes (e.g. direct payments). This stems from the fact that the EU level has the institutional (organisational) capacity to govern and monitor such inter-regional (re)distributive projects.\(^\text{13}\) Furthermore, if the (income) support system is executed by member states, this could distort competition and have a negative effect on the functioning of the Internal Market.

**Imperfect or Asymmetric Information**

It is well-known that agricultural activity is accompanied by higher average risk (weather, diseases etc.) than other branches of the economy. Risks higher than average (which are in general systemic) necessitate state/Community-level intervention. In this respect, there are two possible kinds of Community-level intervention. On the one hand public intervention should encourage training in the field of market-oriented risk management tools, the use of which is still very limited. On the other hand, subsidies are needed to counterbalance the fact that, due to the extremely high systemic risk that is typical in the agricultural sector, insurance companies only undertake insurance for an excessively high premium. Because of the above average risks producers cannot remain without protection: economic crises must be managed at Community level.

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Table 6
Selected Public Goods Provided by Agriculture

<table>
<thead>
<tr>
<th>Public goods</th>
<th>Spillover effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmentally friendly agricultural production practices</td>
<td>Local, regional, European</td>
</tr>
<tr>
<td>Protection and preservation of natural resources</td>
<td>Regional, European, global</td>
</tr>
<tr>
<td>Stable ecosystem</td>
<td>Local, regional, European, global</td>
</tr>
<tr>
<td>Biological diversity</td>
<td>Local, regional, European, global</td>
</tr>
<tr>
<td>Protection of valuable natural areas</td>
<td>Local, regional, European</td>
</tr>
<tr>
<td>Carbon sequestration</td>
<td>European, global</td>
</tr>
<tr>
<td>Waste management</td>
<td>Local, regional, European</td>
</tr>
<tr>
<td>Ethical agricultural production</td>
<td>Local, regional, European</td>
</tr>
<tr>
<td>Food safety</td>
<td>Local, regional, European</td>
</tr>
<tr>
<td>Animal welfare</td>
<td>Local, regional, European, global</td>
</tr>
<tr>
<td>Socially sustainable agriculture</td>
<td>Local, regional, European, global</td>
</tr>
<tr>
<td>Buffer function on the labour market</td>
<td>Local, regional, European</td>
</tr>
<tr>
<td>Cultural diversity – maintenance of material and non-material cultural heritage</td>
<td>Local, regional, European, global</td>
</tr>
<tr>
<td>Contribution to the catching up of rural areas</td>
<td>Local, regional, European</td>
</tr>
<tr>
<td>Land management</td>
<td>Regional, European, global</td>
</tr>
<tr>
<td>Stable ecosystem</td>
<td>Local, regional, European, global</td>
</tr>
<tr>
<td>Biological diversity</td>
<td>Local, regional, European, global</td>
</tr>
<tr>
<td>Carbon sequestration</td>
<td>European, global</td>
</tr>
<tr>
<td>Water management + flood management (integrated approach - agriculture as a cause of and a solution to flooding)</td>
<td>Local, regional, European, global</td>
</tr>
<tr>
<td>Preventing deforestation</td>
<td>Forest biodiversity</td>
</tr>
<tr>
<td>Stable ecosystem</td>
<td>Regional, European, global</td>
</tr>
<tr>
<td>Wildlife</td>
<td>Local, regional, European, global</td>
</tr>
<tr>
<td>Reduction of greenhouse gas</td>
<td>Local, regional, European, global</td>
</tr>
<tr>
<td>Carbon sequestration</td>
<td>European, global</td>
</tr>
<tr>
<td>Combating desertification and drought</td>
<td>Carbon sequestration</td>
</tr>
<tr>
<td>Watershed protection</td>
<td>Watershed protection</td>
</tr>
<tr>
<td>Biodiversity conservation in drylands</td>
<td>Biodiversity conservation in drylands</td>
</tr>
<tr>
<td>Sustainable mountain development</td>
<td>Stable ecosystem</td>
</tr>
<tr>
<td>Hydrological stability</td>
<td>Hydrological stability</td>
</tr>
<tr>
<td>Carbon sequestration</td>
<td>Carbon sequestration</td>
</tr>
</tbody>
</table>

Source: Authors’ compilation based mainly on data from the FAO.

Food safety is a credence function which can hardly be perceived by consumers. The market itself often cannot provide the socially optimal food safety level, and this calls for public intervention. The literature on the economics of food safety distinguishes four factors which as a source of market imperfections can evoke public intervention: asymmetric information on risk; food safety as a public good; taking into account social costs and benefits; and when there is a difference between the perceived and the real risk.

**Equity Function**

The economic and social strengthening of rural areas forms an integral part of economic growth. Interventions aimed at regional convergence (interregional re-distributive policies) could therefore be justified.\(^{14}\)

On equity grounds, for example, even the most radical authors recognise a justification for direct payments, although they do so from a perspective of path dependency. Before implementing a support system, cost-benefit analyses should be carried out. The current income support system of the CAP (price support, direct payments etc.) has not been based on this kind of analysis, and therefore it is not surprising that the transfer efficiency of these payments is relatively low. The current support system favours the owners of production factors and production entitlements instead of the needy. (Full decoupling and targeted policies could prevent this.)

**Level of Agricultural and Rural Intervention**

Theory suggests that only the management of public goods based support systems and externalities with significant spillover effects can be justified at a central level.
level. These objectives may, however, have important regional (spatial) and benefit dimensions. Focusing on the spatial and benefit dimensions of public goods has the advantage of making the principle of subsidiarity applicable: community level intervention (centralisation) may be justified in the following cases:

- regional (European) and global public goods (because of self-interested governments)\(^{15}\)
- vertical cooperation in the case of core activities (e.g. research)\(^{16}\)
- economies of scale
- risk reduction and direct utility (their benefits can usually be enjoyed in a wider range than that of capacity enhancing activities)\(^{17}\)
- joint production.

We can speak of joint production if the production of two or more outputs is interlinked in some way (e.g. through technical interdependencies or non-allocable inputs). For agricultural public goods, jointness is mainly related to the existence of non-allocable inputs, where it is difficult to determine a non-allocable input’s contribution to each output. In agriculture, land is the most obvious non-allocable input since land enters into the production of both landscape preservation and food security, as well as agricultural products.\(^{18}\)

The enlarged Union shows significant differences as regards income, population density, climate, land quality etc. It is not surprising therefore that preferences for the objectives to be supported are rather heterogeneous too. The strongly heterogeneous preferences take us in the direction of decentralisation.

**Instruments Available**

Instruments of public intervention and their possible implementation areas (with regard to the aspects discussed earlier) are shown in Table 7.

The current system is based on regulations and support measures. When selecting the most efficient instruments social, environmental and economic aspects have to be taken into account. Here we have to stress the importance of proportionality, which can be seen as a social cost benefit analysis that examines what policy measure to use.

**Subsidiarity**

We now examine how the current CAP meets the budgetary principles and what kind of change is necessary.

When examining the spending side of the EU budget, the study by ECORYS et al.\(^ {19}\) applied the subsidiarity test for the CAP in an enlarged form. They took into account not only the three most important relevant criteria of fiscal federalism, but also political economy and public choice aspects. Their main conclusions are the following:

- Path dependency seems to be the main argument for the current existence of direct payments and market interventions.
- As price support and coupled payments distort markets, they have clear externalities. Therefore, there is a case for centralising the implementation of market interventions, although this remains a second-best option. (The first best solution would be to abolish them altogether.)
- Both normative and positive analyses argue in favour of the decentralisation of income support policies.

**Proportionality**

Without support, the levels of rural public goods would fall short of the socially optimal level. However, we can state that the current support level is well above the level that can be defended by the public goods argument.

The origins of this problem go back to the objectives of the CAP set out in the Amsterdam Treaty (modernisation, income security, market stabilisation and food security). Although these agricultural policy objectives have remained important, there has been a significant

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17 For details cf. O. Morrissey et al., op. cit.


change in emphasis. In recent years objectives relat-
ed to the environment, rural development and food
safety (or in general: the provision of public goods) have also become important. These latter objectives have important spatial and/or benefit dimensions, and therefore in their cases traditional broad-based policies do not necessarily address current societal interests, and are often wasteful and inefficient.\(^{20}\)

An OECD study\(^ {21} \) concludes that in the case of pol-
ices which aim to correct market failures (e.g. land-
scape preservation or biodiversity) targeted support (be it decoupled or not) may prove to be the most cost efficient solution (especially if the savings through targeting are high). The study also mentions the ex-
ceptions: widespread market failure, which limits the savings from targeting; high policy-related transac-
tion costs; decoupled measure where there are high costs of separating the production of commodities from that of non-commodities (joint production).

**Value for Money**

This is perhaps, the most complex area of the analysis. The aim of intervention is generally to cor-
rect market failures (public goods, externalities, asymmetric information etc.) because the market of a particular “product” does not function well or there is no market at all. Therefore, it is difficult to calcu-
late the market value. There are several other factors which make calculation more difficult, e.g. there are different types of values (user, option, existence and bequest) and there is no uniquely approved measure-
ment method. The most commonly applied methods (mainly for environmental services) are the following: contingent valuation, travel cost and hedonic price method. Calculation of value in this area requires fur-
ther research.

**European Value Added**

It is highly debated whether the Common Agri-
cultural Policy generates value added for Europe. ECORYS et al.\(^{22} \) argue that, presently, the support measures of the Common Agricultural Policy score badly in terms of EU value added due to the lack of ef-
ficient targeting and the ensuing excessive oppor-
tunity costs. According to the definition of (European) value added by Sapir et al.,\(^ {23} \) the CAP would have to be abolished.

**European Public Goods**

In addition to production, agriculture provides ex-
tra services to society, and the European agricultural model is typically characterised by multifunctionality.\(^ {24} \) The key elements of this multifunctionality are:

- multiple product and non-product output produced jointly in agriculture (joint output)
- creating non-product output with the characteristics of externalities or public goods.

All of these (maintaining the landscape and viable rural communities, providing environmental and ethical goods etc.) can be jointly classified as European public goods (cf. Table 6). These accomplishments add to the quality of life in the EU member states while at the same time (because of the additional costs involved) they are considered to be competitive disadvantages vis-à-vis overseas competitors.

The above-mentioned multifunctional elements serve essential, cross-border externalities and provide significant European and global public goods. It is a common interest that even in poorer member states and regions, landscapes correspond to the require-
ments of the European model. Furthermore, common financing avoids the distorting effects of possibly dif-
ferent national support systems on the internal mar-
ket and on competitiveness. It must be emphasised, however, that the magnitude of current CAP subsidies has not been determined based on the proper assess-
ment of the above functions. The size of agricultural subsidies in the EU essentially depends on historic amounts. Accordingly, the scale of these agricultural subsidies is debatable.

The multifunctional factors result in economic policy action if there is no private market for certain welfare-
increasing or welfare-decreasing joint outputs. If there is a need for political action in such cases for the in-
ternalisation of externalities, the characteristics of the affected activity will have an impact on planning and the application of the corrective measures.

In the case of the joint production of private and public goods efficiency will require that private goods are produced, used and traded according to market mechanisms. In addition, for the production of public

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\(^ {20} \) For details see e.g. OECD: A matrix approach to evaluating policy: preliminary findings from PEM pilot studies of Crop policy in the EU, the US, Canada and Mexico, COM/AGR/CA/TD/TC(99)117/FINAL; OECD: Improving the environmental performance of agriculture: Policy options and market approaches, Paris 2001; OECD: Income transfer efficiency of farm support measures, AGR/CA/APM(2001)24, 2001.

\(^ {21} \) OECD: Policy design characteristics, op. cit.

\(^ {22} \) OECD Nederland BV et al., op. cit.

ford University Press.

\(^ {24} \) It has to be borne in mind that the term multifunctionality in this economic context has a different meaning from that in which it is often used by agricultural interest groups in defence of the status quo.
goods required by society, targeted and decoupled economic policy measures are necessary. The eventual goal is to establish principles of good policy practice “that permit the achievement of multiple food and non-food objectives in the most cost-effective manner, taking into account the direct and indirect costs of international spill-over effects”.25

Is Common Financing of a Reformed CAP Justified?

We shall now try to answer some sensitive questions which should be dealt with in the process of the Budgetary Review.

Negative positions regarding the CAP are usually based on the assessment of European value added. However, they do not take into account the value of public goods provided by the rural areas. As we have already mentioned, it is very difficult to calculate the value of public goods. However, this does not mean that they should be completely disregarded. It is commonly agreed that they contribute to local/regional/national/EU/global welfare, but their value is not added to GDP.

Growth should be measured with an extended form of GDP, including the value of public goods. What is more, we should also take into account the intergenerational nature of certain public goods. Further problems may arise from the fact that the value of certain public goods do not directly appear in the agricultural sector. Biodiversity, landscape and several other benefits of rural public goods directly favour tourism. We argue that the challenges Europe faces require EU level agricultural and rural policies. Regulation may help in certain cases, while in other cases financial resources are required to correct market failures. Regulation and financial frameworks should be developed at EU level, because:

- Europe is one of the largest food-producing regions in the world. From the perspective of global food security it is essential to keep production factors in a “stand-by” position, to improve competitiveness and to enhance innovation.
- Land is a strategic input. Agriculture and forestry utilise more than 80% of the European land surface. Food production is only one of the several services of the ecosystem. Perfect competition (without intervention) would push the other (welfare) services (competing for land as an input) into the background, as they have no market or only a limited one.

<table>
<thead>
<tr>
<th>Table 8</th>
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<tr>
<td><strong>Basic Elements of a Reform Reflecting the Budgetary Principles</strong></td>
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<tr>
<td><strong>(Common) Budgetary Principles</strong></td>
</tr>
<tr>
<td>Subsidiarity</td>
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<tr>
<td>Proportionality</td>
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<tr>
<td>Additionality</td>
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<tr>
<td>Value for money</td>
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<tr>
<td>European public goods</td>
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<tr>
<td>Value added (at European level)</td>
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</table>

25 OECD: Income transfer efficiency of farm support measures, op. cit.

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mon financing, implementation and monitoring – is justified only in the case of joint products (cf. Figure 1). In all other cases a certain level of decentralisation should be considered: national and regional authorities should take more financial liability.26

Is it Justified to Keep the System of Commonly Financed Direct Payments?

Direct payments were originally introduced as compensation for the income loss suffered because of the reduction in price support. Originally they were coupled to production and distorted the markets so they clearly had (negative) externalities. These externalities justified the centralisation of the policy and its financing. Nowadays, most of the payments are decoupled and have no, or at most minimal, distorting effects. Fiscal federalism suggests that direct payments should be totally abolished. However, path dependency encourages us to find a second best solution. Also, the former reforms show that the necessary changes can only be made gradually. As a first step, it is necessary to reduce the rate of general support and increase the level of targeted payments.

Changing the “content” or base of the payments is a more complex process and requires more time (cf. Figure 2). Income support cannot be a central task. Neither economies of scale, nor the internalisation of externalities justifies central financing.

Based on the theories we can again argue that full centralisation is justified only in the case of joint products (cf. Figure 3). This suggests that flat-rate payments can be made if the non-product output is a joint product of the agricultural activity, for public goods whose provision can be expected from all European producers, and whose value is more or less independent of the location of production.

It is important to stress that even if economies of scale justify the central financing of the provision of public goods, other functions can effectively be accomplished at lower governmental levels, depending on the nature of spill-over effects. In these cases decentralisation should be considered.

Public goods may show significant regional differences. These differences (specific social and environmental conditions of the member states) justify the regional supplementary payments aiming at enhancing the targeted provision of public goods. Targeted regional payments could ensure that support adjusts better to the actual additional costs (proportionality) and contribute to a more balanced cost-benefit ratio (cost efficiency, value for money).