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Working Paper

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Discussion Papers Series, No. 08-07

Provided in Cooperation with:
Utrecht University School of Economics (U.S.E.), Utrecht University

Suggested Citation: Figueira, F. (2008) : How to Reform the EU Budget? A Multidisciplinary Approach, Discussion Papers Series, No. 08-07, Utrecht University, Utrecht School of Economics, Tjalling C. Koopmans Research Institute, Utrecht

This Version is available at:
https://hdl.handle.net/10419/322753

Tjalling C. Koopmans Research Institute

Discussion Paper Series nr: 08-07

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How to Reform the EU Budget? A Multidisciplinary Approach

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March 2008

Abstract
The European Commission is currently drafting a proposal for a review of the EU budget, which could lead to its most significant reform to date. This paper proposes a method for restructuring the EU budget, based on a multidisciplinary approach. The insights of public sector economics, fiscal federalism, political science and the literature on the concept of "subsidiarity" are combined to assess which policies should be funded by the EU budget, and by how much. The resulting four complementary analyses are brought together into an eight-step chart, which is used to analyze in detail one area of policymaking - education policies – to assess whether it should be funded by the EU budget. Extending the analysis to the budget as a whole, the paper finds that the EU budget should be shared into five areas, each corresponding to an EU objective: economic growth, sustainable development, convergence of the EU economies, external security and internal security.

Keywords: EU budget, European Union, fiscal federalism, subsidiarity, EU competences

JEL codes: H50, H60, H77

Acknowledgements
This work was supported by the Portuguese Foundation for Science and Technology (Fundação para a Ciência e a Tecnologia).

INTRODUCTION

Over the past twenty years, there has been a succession of failed attempts to reform the budget of the European Union. The last of those took place in 2006, during the negotiations on the 2007-2013 budgetary package. As it became obvious that the political climate was not appropriate for achieving any significant reforms, Member States included a clause in the final agreement whereby they would undertake a review of the budget starting in 2008 or 2009. This so-called "Mid-Term Review" of the budget has now began, and there are hopes that it will result in the long-awaited reform of the budget.

The main reason for the current dissatisfaction with the EU budget is that the way in which it is spent is considered to be out of touch with the realities of the EU. The structure of the budget - where approximately 43% of the budget is allocated to agriculture, 36% to cohesion funds (funds which support the poorest regions of the EU) and the remaining 21% are allocated to several policy areas, such as external action and internal policies – does not correspond to the objectives of the EU.

This is because throughout the history of the EU, the budget has always been used, not as a means to meet the objectives of the Union, but rather as a negotiating tool for the Member States.[1] Therefore, EU spending programs have been created throughout the years in an ad-hoc fashion, without proper assessment of whether there is a case for them to be financed at EU level, and of whether they are being allocated an amount of money proportional to their importance.

This paper aims to contribute to the ongoing debate on how to reform the budget of the European Union; it proposes an analytical framework for assessing how the budget should be allocated among policy areas. The method combines the insights of economics of the public sector, economics of fiscal federalism, and the political and legal implications of subsidiarity to analyze the EU budget.

It is argued that this integrated and multidisciplinary approach was lacking in the previous literature on the EU budget, which has so far focused on only one of those four theories, while ignoring the insights of the others. For that reason, the existing literature on the EU budget has not yet offered a solution on how to reform the budget which is consistent, efficient and realistic, both from a political and from an economic perspective. The objective of this paper is to offer the basis for such an analysis.

This paper will only look at the *expenditure* side of the budget (what the money should be spent on); it will not look at the *procedures* involved in negotiating the budget, or at the sources of *revenue* of the budget. The reason is that I believe that the key to improving the

1 For example, several analysts see the large spending on a Common Agricultural Policy as a compensation for France (still today, the main beneficiary of EU agricultural funds), for allowing German industrial products to enter the French market. Similarly, the EU Cohesion Policy, created when Spain and Portugal entered the EU in 1986, was meant to help the negotiations on the 1992 Single Market project.

budget lies, not in attempting marginal changes to the political process, but rather in showing that the budget could be used much better. This should contribute towards the creation of a political momentum for a radical change of the budget, which is essential for any changes to happen. It should also be noted here that this paper takes the total size of the budget as given; it does not question how large the EU budget should be, but only what percentage of the budget should be spent on each policy area.

Part 1 analyses the budget from the angle of each of the theories. The resulting four complementary analyses are then brought together into an eight-step chart. In Part 2, the chart is used to analyse in detail one area of policymaking: education. Part 3 concludes by extending the analysis to the budget as a whole, and makes proposals on how it could be restructured.

1. A MULTIDISCIPLINARY ANALYSIS

Finding the optimal structure of the EU budget's expenditure involves four main considerations:

A. What should the annual budget of an polity such as the European Union be used for? – This is a *political issue*;

B. According to the EU treaty, what should the budget of the European Union be used for? – This is the legal issue of *subsidiarity*;

C. Which policy areas involve either market failures on an EU-scale or common EU equity goals? Among these, which can be tackled in a cost-effective way by public spending? – These are issues of *public sector economics;*

D. What can be done more efficiently by the EU budget than by the Member States' national budgets? – This is an issue of the branch of economics known as *fiscal federalism*.

A. Political issues: the function of the EU budget

The first step in the proposed analysis is to find what is the objective of the EU budget. At the national level, this question is not necessary; there is no pre-determined objective to public finances, other than meeting government policy goals. However, at the EU level this question is necessary, because it has never be taken for granted that the EU budget should be used to meet EU policy goals – indeed, as explained above, the EU budget has mainly been used as a negotiating tool.

This paper argues that the objective of the EU budget should be to contribute towards a limited number of EU objectives. There are two reasons for this:

Firstly, the EU budget exists to support the activities and policies of the European Union – so it should be used to promote those. Therefore, it should not serve as a "bargaining tool" which allows Member States to give money to each other in exchange for certain agreements (as has been done historically, see introduction). It should also not serve to meet redistribution goals that are not common to all EU Member States and they are not explicitly EU goals (as

happens with the Common Agricultural Policy, whereby EU money is used to support the farmers in some Member States).

Secondly, the only way in which the EU budget, which is very small in comparison to the national budgets, can play a useful role is if it is streamlined and dedicated to meeting a limited number of EU objectives.

Once we assume that the goal of the EU budget is to meet a number of EU objectives, it would be useful to identify all the EU objectives, and then select those that can be helped by the budget.

However, the objectives of the EU have never been clearly defined. The EU Treaty includes an article stating the objectives of the EU (Article 2, see below) but they are phrased in a complex and general way, and do not point to immediate conclusions in terms of policies and spending. Over the past ten years, there has been an effort to define the objectives and functions of the EU, which culminated with the 2003 Convention on the Future of Europe. However, these efforts were not well succeeded – the members of the Convention were unable to agree on a list of functions of the EU.

Moreover, the existing literature does not provide much guidance on this issue. The economics literature generally does not tackle the issue of the objectives of the EU; or, when it does, it looks only at the perspective of fiscal federalism. For example, Tabellini (2002) proposes a list of EU functions, but bases it only on the theories of fiscal federalism.[2]

While this author agrees with the difficulties involved in trying to make a well-defined list of what the EU should and should not do, it is nonetheless argued that it is possible, and necessary, to identify a list of the general objectives of the EU. This is needed as to make normative recommendations in the field of EU studies.

Annex 1 (page 24) interprets the EU treaty, and proposes a "working list" of five major EU objectives: Economic growth; Sustainable Development (employment, environment and social issues); Convergence of the EU economies; Internal Security (freedom, security and justice); External Security (external relations and defense). It is argued that the EU budget should be restructured as to target those objectives.

B. Subsidiarity: the Legal Perspective

The concept of *subsidiarity* means that the EU should only take action in areas where it can be more efficient than the national governments. It is a legal concept, which was added to EU law by the 1992 Treaty of Maastricht.

The term subsidiarity is nowadays widely used in the EU studies literature, and has acquired different meanings – for example, it is often used to refer to the general issue of the allocation of responsibilities between the EU and the Member States. However, for the purposes of this paper, subsidiarity is understood in its stricter sense – as the legal condition, laid out in the EU Treaty, for a certain policy to be carried out at EU level.

Article 5 of the EU Treaty reads as follows:

[2] Tabellini, Guido (2002)

"The Community shall act within the limits of the powers conferred upon it by this Treaty and of the objectives assigned to it therein.

In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community.

Any action by the Community shall not go beyond what is necessary to achieve the objectives of this Treaty."

This article makes two main points. First, unless a certain policy is an exclusive competence of the Union (for example, trade policy or monetary policy), the EU should only intervene in that area if it can do so in a more efficient way than the Member States (the expression "scale or effects of the proposed action" shows that Article 5 is based on the economic theories of *fiscal federalism*, which will be explained in section D below);

Second, if the EU does intervene, the intervention should be limited to what is necessary to achieve the objectives of the treaty (this condition is generally referred to as "proportionality").

What does this legal condition imply for the EU budget? It implies that the budget should only be allocated to a certain policy area *either* if it is an exclusive competence of the EU *or* if the EU budget can be more efficient than the national budgets in funding that policy area. Moreover, if so, the funding should be proportional, or limited to what is necessary to achieve the objective.

Useful guidance is provided by Pelkmans (2003)[3]. Pelkmans suggests a five-step test to apply the principle of subsidiarity in practice:

"1 Identify whether a measure falls within the area of shared competencies (if exclusive to the EC, the subsidiarity test does not apply);
2 Apply the criteria (scale and externalities, Art.5 EC, and possibly other criteria) – this is the "need to act" test;
3 Verify whether credible cooperation is feasible;
4 If 1 and 2 are confirmed, and 3 denied, then the assignment is to the Union level;
5 Define to what extent (proportionality) implementation, monitoring and enforcement should also be assigned to the EC level, or, indeed, can be assigned to the Member States, perhaps in a common framework."

This test asks three questions:

A/ Is the policy in question already an exclusive responsibility of the EU? If it is, then *legally* there is no longer an issue, as it must be done at EU level.

3 Pelkmans, Jacques (2001)

B/ Can it be done more efficiently at EU level, using the criteria of Article 5? Article 5 says that this decision should be made based on "scale and effects" – this is a reference to the economic theories of fiscal federalism, which I will explain in section D.

C/ Is it possible to have a common responsibility at EU and national level? Even if something is done more efficiently at EU level, is it better to do part of it at national level.

C. Public Sector Economics

The previous sections looked at what the objectives of the EU budget should be, from the political and the legal perspective; this section now looks at the budget from an economic angle.

Public sector economics is the branch of economics that looks at the activities of the government, using economic tools to criticize it and/or suggest improvements. Although public economics is generally used to analyze the activities of national governments, it can also be applied to the EU - however, as the tools of public economics were designed primarily to analyze the activities of national governments, they must be adapted.

To assess whether there is a need for government intervention in a certain area, public sector economics uses what is sometimes called an "intervention test": the government can intervene for two reasons: either to correct market failures (efficiency reason) or to ensure social justice (equity reason). This test is derived from what can be considered the mainstream in current public economics – authors such as Barr (1998) and Stiglitz (2000)[4].

This test can be applied to the EU budget: a budget line should only exist if either:

(i) It is correcting a market failure at EU level – ie. it is allowing the internal market to function better (for example, grants to help mobility of workers);

(ii) It is contributing towards an EU equity goal (for example, cohesion funds to help the economic convergence of the poorest Member States).

It is argued that this intervention test takes a different shape at the level of the EU than it does at national level, and therefore it is not sufficient to rely on the rationale for intervention at the national level.

Once, after applying the intervention test, we conclude that there is a need for government intervention in a certain area, the next step is to find what type of intervention is most appropriate: imposing regulations on a certain market, public production of a certain good, of public funding. In the case of the EU budget, only areas where intervention should be in terms of funding are relevant.

D. Fiscal federalism

Fiscal federalism is the branch of economics that analyses which functions of a government are best performed at a central (or EU) level and which are best done at a local (or national)

4 Barr, Nicholas (1998); Stiglitz, Joseph (2000)

level. In a nutshell, fiscal federalism says that a certain policy should be done at a more central level if this permits to internalise externalities or to reap economies of scale[5]; however, if there is a significant heterogeneity of preferences (that is, if the people in the different local communities want different policies) it should be done at a more decentralised level.[6]

These theories have often been applied in the EU studies literature, to find the optimal distribution of policies between the EU level and the level of the Member States[7]. The economic literature on the EU budget has so far focused almost exclusively on this type of theories. For example, Buti and Nava (2003)[8] suggest a model to assess whether public goods should be provided at EU or at national level, which is based on the insights of fiscal federalism.

In what concerns the EU budget, fiscal federalism gives the following main insights[9]: The EU budget should be used to provide public goods[10] with large economies of scale: for example, defense policy, internal security (including protection against organized crime or border controls) and aid to developing countries. It should also be used to fund policies with positive externalities: for example, research and big transport infrastructure. On the contrary, it should not be used to fund policies with big heterogeneity problems: for example, it should not be used to fund the EU country's welfare policies.

This paper argues that fiscal federalism, by itself, is not sufficient to give a complete analysis of the EU budget, because it ignores the aspects covered by the three theories above.

2. AN EIGHT-STEP TEST

The following chart contains the main insights from the four theories. The scheme shows the eight questions that should be asked to assess whether there is a case for a certain policy area or spending programme to be funded by the EU budget.

5 Externalities occur when a decision by an economic agent causes costs or benefits to other stakeholders, for which the agent does not bear the cost or does not reap the gain. Economies of scale occur when average costs of producing a good decreases if the good is produced in a larger quantity.

6 The fiscal federalism literature also looks at other criteria, such as accountability. Here only the main criteria will be considered.

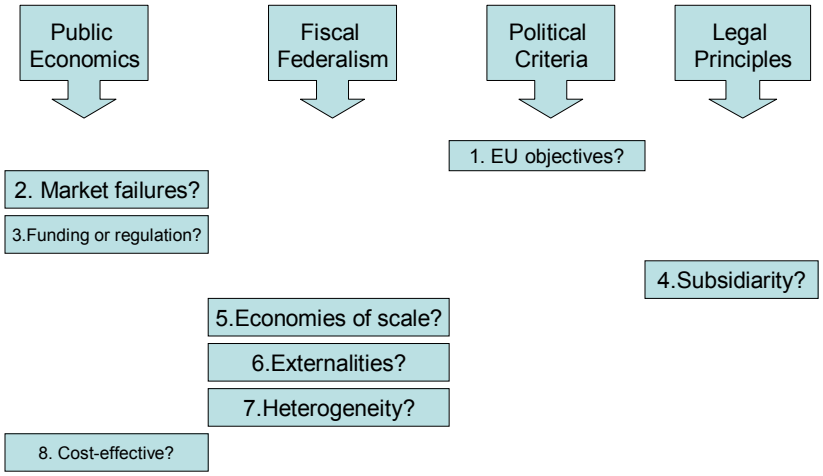
7 See, for example, Persson, Torsten, Roland, Gerard and Tabellini, Guido (1996)

8 Buti, Marco and Nava, Mario (2003)

9 For detailed analyses of the EU budget using fiscal federalism, see: Buti and Nava (2003); Koutsiaras, Nikos and Andreou, George (2005)

10 A public good is a good that is not produced efficiently by the market because it is non-rivalrous (its consumption by one person does not diminish the quantity available for others to consume) and/or non-excludable (it is difficult or even impossible to keep people from consuming the good).

Figure 1: Criteria for EU funding



I will apply these criteria to one example: should education policies in the EU be funded by the EU budget?

Step 1 asks if the policy under analysis contributes towards one of the objectives of the budget. In section 2.1 I suggested five objectives for the budget – these included the objective of economic growth.

Education is a determinant of growth; the economic literature on this area shows that, although it is difficult to calculate empirically the direct effects of education on growth, it is undeniable that education has a big impact on growth, through its contribution to human capital.[11] Therefore, education policies pass the first step.

Step 2 asks if there are either "EU-wide" market failures or "EU" equity goals. Public economists generally see education as an area where government action is necessary, both to correct market failures and to meet equity goals.

In what concerns market failures, there are positive externalities because we all benefit from a society where people are educated and because education leads to more growth, which benefits all. Another market failure concerns capital markets: even though in theory everyone should be able to borrow from capital markets to finance their studies, in practice that is not always the case.

Finally, there is a social justice goal, because we want to ensure that everyone has access to education, irrespective of their background.[12]

11 For a very useful review of the literature in this field see Sianese, Barbara and Van Reenen, John (2000)
[12] See, for example, Stiglitz (2000), for an overview of the justifications for public intervention in the area of education

Are these market failures and social goals an "EU-wide" issue? The two market failures are, as they affect all EU countries. Moreover, there are spillovers among the countries (if country A finances more education and increases growth, country B will benefit since the EU economies are interdependent).

The social goals, on the contrary, are not, because it is not an EU goal to ensure that all EU citizens have access to education; that is something that national governments are concerned with.

It should also be noted here that education policies can help tackle another EU-wide market failure: the insufficient mobility of the workers between EU countries. Programmes such as the existing Erasmus (which finances university students who want to spend one year of their studies in another Member State) are particularly useful in this respect.

Step 3: Once we assess that there is a justification for public intervention in a certain area, it does not necessarily follow that there should be government spending in this area, because the most appropriate type of intervention could instead involve regulations.

In the case of education a mix of types of intervention is used by national governments. These include *regulations*, for example to ensure that all children attend a certain number of years of schooling, but also *government funding*, for example grants to allow students to continue their studies, and even *government production* in the case of public schools.

A certain amount of government spending is therefore necessary. However, it remains to be seen whether this spending should take place also at EU level or only at the level of the Member States; the next steps will tackle that question.

Step 4 refers to the section on subsidiarity. It asks if the policy should be undertaken at EU level, according to Article 5 of the EU Treaty. As seen above, this implies that either (a) it is an exclusive responsibility of the EU (b) is should be done at EU level for reasons of efficiency, according o the theories of fiscal federalism. For education (a) is not the case, as education is not an exclusive responsibility of the EU;
As for (b), we must look at Step 5.

Step 5: There are no significant economies of scale involved.

Step 6 is concerned with externalities between the Member States. There are positive externalities between the Member States because as we saw education leads to growth, and since the economies of EU Member States are very interdependent, more growth in one country contributes to more growth in the other country.

Step 7: There is a problem of heterogeneity, because EU countries have very different approaches in their educational systems. However, this issue becomes less problematic at a higher level of education: university education is becoming increasingly similar among EU countries, especially as more and more young people chose to study in another EU country. It is also this level of education that is most relevant in terms of its contribution to growth.

Step 8 goes back to public economics. Now that we have seen that there are grounds to justify at least some funding of high education by the EU budget, we must look at whether this can

be done in a cost-efficient and fair way. What can the EU do in practice? Contribute to (a) improve the level of the universities in the EU, as to make them more growth enhancing; (b) give grants to students to allow them to go to those universities; (c) foster the mobility of students as to allow them to become mobile workers afterwards.

Points (a) and (b) are generally seen as part of funding research; at a high level of education, it becomes difficult to differentiate the education issues from the research issues, because both activities are done at universities and often by the same persons. As we will see in Part 3, funding at EU level can be very efficient in funding research/high education. Point (c) is already done at EU level with great success by programs such as Erasmus and Marie Curie.

In conclusion, this analysis has showed that spending part of the EU budget on funding education is justified and can be very cost-efficient, as long as the policies are targeted towards economic growth, and concern only the higher levels of education.

3. HOW TO REFORM THE EU BUDGET?

I will now use the six criteria suggested to derive recommendations on how the EU budget as a whole could be restructured. For that, I will begin by finding which policy areas are the main determinants of the five EU budget objectives suggested – that is, I will apply Step 1 in reverse. Then I will use the remaining criteria to see which of these policy areas can be funded most efficiently by the EU budget.

3.1 Matching objectives with policy areas

Step 1 asked if a policy area contributed towards one of the objectives of the EU budget. I had proposed five major EU objectives: economic growth; sustainable development; convergence of the EU economies; internal security; external security. I will now identify the policies which contribute the most to each of the objectives.

By "policy areas", I understand the divisions of policies as they are done by the national governments, which roughly correspond to their allocation to different ministries. The areas I will take as my starting point are: economics; home affairs; justice; foreign affairs; defense; environment; agriculture and fisheries; rural development; transport, energy and communications; employment; health; education; science; culture; development; trade; industry and competition; tourism.

Determinants of Economic Growth

The literature on the determinants of economic growth identifies several factors that foster the growth of an economy, such as: human capital; fertility rate; government consumption; rule of law; terms of trade; investment ratio; initial GDP of the country.[13]

However, the importance of these factors varies substantially among countries, depending especially on their level of development. In what concerns the EU, the literature identifies the following policies as the major determinants of growth: product market reforms (abolishing all barriers to trade within the EU and increasing competition within markets), capital market

13 See, for example, Barro, Robert J. (1996)

reforms (making EU capital markets more efficient, namely by fostering their integration across borders), policies for innovation (including research, education and policy on patents), labour market reforms and policies to improve infrastructure (mainly transports).[14]

The policy areas with the greatest potential to foster growth in the EU are therefore:

- Industry and competition policies: completing the internal market, competition policy, capital market reforms
- Research policy
- Education policy
- Employment policy: labour market reforms
- Transport policy

Determinants of Convergence

The policies that are aimed directly at convergence among the EU Member States are grouped under the EU Cohesion Policy. This consists essentially in transfers from the richest to the poorest regions of the EU, which are used to develop these regions' potential for growth, mainly by improving infrastructure and human capital.

Determinants of Sustainable Growth

As explained above, the term "sustainable growth" refers to ensuring that economic growth does not have a negative impact on employment, the environment and society.

The public sector policies that contribute to these goals include:

- Restructuring policies: mostly help to workers who lose their jobs due to changes in the economy - for example, retraining them so that they can do a different type of work
- Employment policies: policies to promote full employment
- Environment policies
- Rural development policies: policies aimed at preserving the countryside - often these policies are aimed at regions that used to live from agriculture

Determinants of Internal Security

As explained above, the EU objective of "internal security" encompasses not only the safety of citizens but also freedom of movement among EU Member States and justice.

The public policies contributing towards safety at the scale of the EU include police, fighting international crime and protection of the EU's external borders. Immigration policies are also included in this general goal, as they are related with the opening of borders within the EU and to the control of external borders.

The policies involved are therefore:

[14] See, for example, European Commission (2005), "The Economic Costs of non-Lisbon", Directorate-General for Economic and Financial Affairs Occasional Paper No. 16 (www.europa.eu.int/growthandjobs/pdf/SEC2005_385_en.pdf)

- Home affairs including:
  -Safety: Police, fighting crime, border protection
  -Immigration policies
- Freedom of movement and establishment
- Collaboration in the field of justice

Determinants of External Security

The EU objective of external security includes "asserting the EU's identity in the international scene" and improving external relations through collaboration in defense matters. Policies involved are therefore:

- Foreign policy
- Defense policy
- Development aid

The policies obtained for the five objectives are:

- Economic Growth: Industry and competition (completing the internal market, competition policy, capital market reforms); Research and patents; Education; labour market reforms; Transports
- Convergence: EU Cohesion Policy
- Sustainable Growth: restructuring policies, employment policies; environment policies; rural development policies
- Internal Security: Police, fighting, crime, border protection; Immigration policies; Opening of borders within the EU; Collaboration in the field of justice.
- External Security: foreign policy; defense policy; development aid.

3.2 How can the EU budget be most efficient?

The previous section identified the policy areas which can contribute towards the objectives of the EU budget. Now this section will use the remaining five steps to find which of these policy areas could be funded most cost-efficiently by the EU budget.We now have a list of policies that could potentially be funded by the EU budget, because they contribute towards one of its five objectives – but we must still assess what percentage of the budget should be allocated to each policy. For that, I will use the remaining steps of the chart.

I will first look at the issue of subsidiarity: is the policy an EU exclusive competency? If so, there would automatically be a legal justification for its funding at EU level. If not, for there to be a legal justification the policy must be more efficient economically if allocated to the EU level. Of all the policies considered, none are exclusive competencies of the EU**.** Therefore, policies should only be allocated to the EU level if they can be done more efficiently than at the national level. That will assessed below.

I will classify the policy areas under "very", "medium" or "low" efficient, depending on their cost-effectiveness in reaching their objective. It is important to note that what is being considered here is not the current efficiency of those policies, but rather their potential efficiency.

I will begin by applying Step 3 because this will allow me to eliminate the policy areas which do not have funding implications, and therefore are not relevant for this analysis.

Determinants of Economic Growth

Step 3: The policies dealing with completing the internal market, competition policy, capital market reforms, patents policy and labour market reforms involve only action in terms of regulation and not in terms of funding; therefore, they are not relevant for our analysis of the EU budget.

Research

Step 2: In public economics there is a case for public intervention in research due essentially to positive externalities; research leads to growth, which benefits the entire society. This is a "EU-wide" market failure because it affects all EU countries in a similar way. Government action in terms of funding can be justified as one of the standard ways to solve that market failure.

Steps 5, 6 and 7: In what concerns the fiscal federalism criteria, there are large positive externalities between the Member States because research in one country contributes towards growth in the other countries. There is also no heterogeinity problem. Economies of scale are not relevant here.

In conclusion, there is a strong case for funding research at EU level and, as research is one of the main determinants of growth, it can be "very cost-efficient" in promoting growth.

Education

The analysis of education using public economics and fiscal federalism was done in Part 2. The conclusion was that funding by the EU budget of higher education can be "very efficient".

Transports

Step 2: Transport infrastructures require government intervention because they are often public goods and therefore cannot be produced efficiently by the market. This market failure is only EU-wide in what concerns international transports; in their national transport systems, countries face different situations.

Steps 5, 6 and 7: From the angle of fiscal federalism, it makes sense to centralize policies on international transport because there are large externalities since, as with education and research, transport infrastructure is a determinant of growth, and growth in EU countries is interrelated. There are also large economies of scale.

The issue of heterogeneity does not apply here, because by definition we are dealing with transports between two or more countries.

Therefore, it can be "very efficient" to fund transport at EU level.

Determinants of Cohesion

Step 3: Cohesion policy involves mainly funding policies, so it is clearly relevant for the EU budget.

Step 2: Cohesion policy is justified by the equity goal of achieving economic convergence between the Member States. This is an explicit equity goal of the EU, which all the Member States agree on. Cohesion policies also contribute to the good functioning of the internal market so they could also be justified as correcting a market failure – but this paper argues that their main goal is an equity goal, and that, following the Tinbergen rule, this should provide the ground for them.

Steps 5, 6 and 7do not apply as by definition this must be done at EU level.

The empirical literature assessing the efficiency of the EU Cohesion Policy has so far found mixed results – studies show that the efficiency of cohesion policy as a whole is low but that this hides a disparity in the results between the poorest regions (where efficiency is high) and the richest regions (where it is low).

This shows that the policy could be made considerably more efficient by changing the current "regional focus" into a "country focus": at present the poorest regions of each Member State get funding – so even the richest EU countries get funding for their poorest regions. That is undesirable, as it would be much more efficient if the richest Member States finance their own lagging regions. Therefore, cohesion policy can potentially be "very efficient".

Determinants of Sustainable Growth

Step 3: All policies under this heading involve public intervention in terms of funding.

Restructuring and employment policies

Step 2: These policies are meeting an equity goal: that of ensuring that economic progress does not lead to unemployment for some people. Depending on how the objective of Sustainable Growth is defined, this could be interpreted as being an EU equity goal, but only when the restructuring happens at the scale of the EU. These policies are also responding to market failures, such as imperfect information, which lead to unemployment. Again, these will be "EU-wide" market failures only when the economic restructuring is taking place at the scale of the EU.

Steps 5, 6 and 7: As for the fiscal federalism criteria, in what concerns compensation for loss of employment, which is a redistributive policy, the literature on fiscal federalism and the EU says that although centralization of redistributive policies would have benefits, the problem of heterogeneity is so large that it is best to keep those policies at a national level.

In what concerns policies for retraining workers and help them find a new job, although there is a positive externality involved because high levels of employment increase growth which benefits other countries, this effect is very indirect and does not compensate for the large heterogeneity problems involved. This would imply that these policies should be kept at national level.

Therefore, the potential efficiency of funding restructuring and employment policies with the EU budget is "medium", and applies only when the policies are in response to economic restructuring at the EU scale.

Environment policies

Step 2: These policies are justified in public economics because they correct a market failure of negative externalities: economic agents create damages to the environment which the entire society pays the cost for. This is an EU-wide market failure only in certain cases.

Steps 5, 6 and 7: Concerning fiscal federalism, centralization of environment policies is justified because of the negative externalities among the Member States. However, there is large heterogeneity in the preferences towards levels of environment protection (for example, the Scandinavian countries want a very high level of environment protection, whilst the populations in the south of Europe are less concerned with those issues), so the centralization should be limited to some policies. Therefore, on average, funding environmental policies at EU level has "medium" efficiency and should be done only when the environmental problem is on an EU scale.

Rural development

Step 2: These policies are justified because enjoyment of the countryside is a public good, so it should be publicly funded.

Steps 5, 6 and 7: There is no case for centralizing the policies: there are no externalities or economies of scale involved, and on the contrary there is a large heterogeneity problem as preferences for how to sustain the countryside vary enormously among countries. Therefore efficiency is very "low".

Determinants of Internal Security

Step 3: Issues regarding free movement and justice involve only regulations and have no funding implications so they will not be considered here. Policies on safety and immigration have some funding implications.

Home Affairs: safety and immigration

Step 2: Public economics policies regarding the safety of citizen should be provided by the government because safety is a public good. Any immigration policy must by definition be publicly provided.

Steps 5, 6 and 7: For safety issues, there is no case for centralizing the policies that only impact on national or local safety – they have by definition no externalities with other countries and there would be large heterogeneity problems. However, due to the opening of the borders between the Member States, several safety issues now have become common to all Member States (they have become "EU public goods") – examples are international crime and protection of the common borders of the EU. So it is "very cost-efficient" to allocate those policies to the EU level.

For immigration, given the opening of the internal borders within the Schengen area, the externalities have become so large that it becomes very difficult for those countries to have different policies on immigration. However, there are large problems of heterogeneity as different Member States have different preferences regarding immigration policies. Therefore, potential efficiency is "medium".

Determinants of External Security

Step 3: Defense and development policy clearly have funding implications. Foreign policy will be considered here only relative to its funding implications.

Step 2: Just as with internal security, the policies involved here are public goods, and therefore public intervention is justified.

Steps 5, 6 and 7: In the area of defense there are very large positive externalities, because the Member States could make their defense systems more efficient and save a lot of money by pooling their resources.

However, there is also a large problem of heterogeneity involved, because Member States have very different preferences in what concerns defense – for example, some countries are "neutral" states. The solution generally advised by the literature is to pool only the resources of the least sensitive areas. Potential efficiency is therefore "medium".

In foreign policy there is what can be seen as large economies of scale, because by pooling their efforts the Member States can improve their standing in the international scene. However, it is difficult to agree on all issues, as there is a large heterogeneity problem. Potential efficiency is "medium"

In development policy there are very large externalities involved – if the Member States collaborate in their aid to developing countries, it can become considerably more efficient. In what concerns heterogeneity, Member States have different preferences, mainly for historical reasons, in what concerns which countries they chose to support. Therefore, efficiency is "medium".

The end-result which I obtain is summarized in the following table:

Table 1: Effectiveness of policy areas in meeting EU objectives

	High effectiveness	**Medium effectiveness**	**Low effectiveness**

Growth	Research; Education; Transports		
Convergence	Cohesion policy		
Sustainable Growth		Environment; Restructuring and employment policies	Rural development
Internal Security	Home affairs		
External Security		Defense; Development; Foreign policy	

3.3 Policy recommendations

Since the EU budget is very small in comparison to the national budgets, the only way in which it can play a useful role is if it is streamlined and dedicated to meeting a limited number of EU objectives. Therefore, I propose that the budget should be allocated only to the areas where it can be very effective.

The table shows five policy areas where EU funding can be very efficient: research, education, transports, cohesion policy and home affairs. Those are the policy areas where the EU budget can make the best contribution to the EU objectives. Education and research can be grouped under one heading, because we are only concerned with the higher level of education, and therefore with universities, which also provide research.

Among these areas, the ones with the largest budgetary implications are research/education and convergence. That is because EU home affairs and transport policies concerning only international transport have smaller budgetary implications. Therefore it is suggested that the EU budget should be used mainly to fund the areas of research/education and convergence. A smaller part of the budget should be divided between transport and home affairs.

CONCLUSION

The EU budget could be a very useful tool for reaching the European Union's objectives and for increasing the benefits that Member States and citizens derive from the EU – but for that it needs to be allocated to the areas where it can truly be useful.

This paper has attempted to identify those areas. The methodology used differed from that which is normally used in this field of studies, since the entire field of public economics was used, instead of just fiscal federalism. This approach involved both finding the policies which are most related to the objectives of the EU and finding the policies where the budget could make a more efficient contribution.

The findings of this analysis are that most of the budget should be allocated to research/education and convergence policies, and the remaining should be divided between home affairs and transports. However, the goal of this paper was above all to suggest a framework, which can give different results depending on the preferences and the priorities of the EU countries and citizens.

After years of failed attempts, the political climate is finally becoming ripe for a significant reform of the EU budget. It is hoped that this paper and the work that will follow will provide some useful input for drafting a better budget for 2014-2020.

Annex 1: Identification and classification of the EU objectives

This section proposes a "working list" of five major EU objectives, based on the interpretation of the EU treaty. The existing literature does not provide much guidance on this issue. The economics literature generally does not tackle the issue of the objectives of the EU; or, when it does, it looks only at the perspective of fiscal federalism. For example, Tabellini (2002) proposes a list of EU functions, but bases it only on the theories of fiscal federalism.[15]

As for the political science literature, the general view is that a listing of the competencies of the EU cannot be done. Wilfried Swenden (2004) argues that a strict definition of the functions, or competences, of the EU should not be attempted, mainly because such a clear listing would be impossible, given that there is no consensus on what the EU should do. He also argues that: a strict definition would only be desirable if the EU had a simple procedure for modifying its constitution, which it does not have; most competences are shared between the EU and the Member States, at different levels, so it is difficult to say where something becomes an EU competence; since EU integration is in constant movement, a strict definition would soon become obsolete; a clear definition would not contribute to stop any excessive integration.

While this author agrees with the difficulties involved in trying to make a well-defined list of what the EU should and should not do, it is nonetheless argued that it is possible, and necessary, to use a list of the general objectives of the EU. This is needed as to make normative recommendations in the field of EU studies.

Interpreting the EU Treaty

Since the European Union is a political union based on a treaty concluded by its Member States, one will need to recur to that treaty – the EU Treaty – to find out what its objectives are. Article 2 of the EU Treaty lists the five main objectives of the EU.

Article 2 should not be seen in isolation from the rest of the treaty; therefore I take account of the rest of treaty when analyzing it. However, Article 2 does provide the closest to a list of EU objectives, so it is the best starting point for this analysis.

Article 2 of the EU Treaty reads as follows:

Objectives of the EU: EU treaty, Title I, Article 2:

The Union shall set itself the following objectives:

- to promote economic and social progress and a high level of employment and to achieve balanced and sustainable development, in particular through the creation of an area without internal frontiers, through the strengthening of economic and social cohesion and through the establishment of economic and monetary union, ultimately including a single currency in accordance with the provisions of this Treaty,
- to assert its identity on the international scene, in particular through the implementation of a common foreign and security policy including the progressive

[15] Tabellini, Guido (2002), "The Assignment of Tasks in an Evolving European Union", CEPS Policy Brief No. 10 (www.ceps.be)

framing of a common defence policy, which might lead to a common defence, in accordance with the provisions of Article 17,
- to strengthen the protection of the rights and interests of the nationals of its Member States through the introduction of a citizenship of the Union,
- to maintain and develop the Union as an area of freedom, security and justice, in which the free movement of persons is assured in conjunction with appropriate measures with respect to external border controls, asylum, immigration and the prevention and combating of crime,
- to maintain in full the acquis communautaire and build on it with a view to considering to what extent the policies and forms of cooperation introduced by this Treaty may need to be revised with the aim of ensuring the effectiveness of the mechanisms and the institutions of the Community.

Article 2 shows that the EU has five main objectives. The following analysis will derive the policy implications from each of these objectives.

The first general objective is to promote, in the Member-States: "economic progress", "social progress", "employment" and "balanced and sustainable development". That should be done through, "in particular": an area without internal frontiers; increased economic and social cohesion; a monetary union.

From this paragraph, we can derive three general objectives for the budget: **Economic growth** (or "economic progress"): growth is a major EU objective. **Cohesion** (or "economic and social cohesion"): solidarity among the Member States, and particularly helping the poorer Member States "catch up" economically with the EU average (through the so-called "cohesion policies"), has become one of the main objectives of the EU. **Sustainable Development** (or "balanced and sustainable development", including "employment" and "social progress"): this expression refers to the aim that growth in the EU should not be achieved at the cost of equality, the environment or employment levels.

The second objective is to "assert its identity on the international scene". This should be done in particular, through: a "common foreign and security policy" which includes "a common defense policy". The objective here is to have **external security**, namely through improving the standing of the Member States in the "international scene".

The third objective is to protect "the rights and interests of the nationals of its Member States", through a "citizenship of the Union". The concept of "citizenship" of the Union means that the EU is not only a union of countries, but also a union of the people living in those countries. Therefore, this point can be seen, not as a goal, but rather as a characteristic of the EU – I therefore do not derive any EU objectives from here.

The fourth objective is to have an "area of freedom, security and justice", including "free movement of persons"; "external border controls"; "asylum and immigration" policies; "combating of crime". The objective here is to have **internal security**, including freedom, security and justice.

The fifth objective concerns the enforcement of EU law ("maintain the acquis communautaire") and also includes the need to revise the EU policies. That can be seen, not as an EU objective, but rather as a constraint necessary to keep the EU working well.

This results in a list of five general EU objectives:

- Growth
- Convergence
- Sustainable Development
- External Security
- Internal Security

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