

A Study on EU Spending

Final Report

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List of abbreviations

ACP	African, Caribbean and Pacific
AFDC	Aid to Families with Dependent Children
CAP	Common Agricultural Policy
CEPOL	European Police College
CF	Cohesion Fund
CFP	Common Fisheries Policy
CFSP	Common Foreign and Security Policy
CHST	Canadian Health and Social Transfer
CIP	Competitiveness and Innovation Programme
CPB	Netherlands Bureau for Economic Policy Analysis (Centraal Plan Bureau)
DC	Development Cooperation
DCI	Development Cooperation Instrument
DG	Directorate General
DSO	Distribution System Operator
EAFRD	European Agricultural Fund for Rural Development
EAGF	European Agricultural Guarantee Fund
EAGGF	European Agricultural Guidance and Guarantee Fund
EAP	Community Environment Action Plan
ECB	European Central Bank
EDA	European Defence Agency
EDF	European Development Fund
EEA	European Economic Area
EEC	European Economic Community
EFF	European Fisheries Fund
EGF	European Globalisation Adjustment Fund
EHEA	European Higher Education Area
EIA	Energy Information Administration
EIDHR	European Instrument for Democracy and Human Rights
EIF	European Investment Fund
EIP	Entrepreneurship and Innovation Programme
ELT	Extremely Large Telescope
EMCS	Excise Movement and Control System
EMU	European Monetary Union
ENP	European Neighbourhood Policy
ENPI	European Neighbourhood Policy Instrument
ERC	European Research Center
ERDF	European Regional Development Fund
ERRF	European Rapid Reaction Forces
ESDP	European Security and Defence Policy
ESF	European Social Fund

ETP	European Technology Platforms
ETS	Emissions Trading Scheme
EU	European Union / Europäische Union
EURATOM	European Atomic Energy Community
FCC	Federal Communications Commission
FP7	Seventh Framework Programme
GAEC	Good Agricultural and Environmental Condition
GAP	Gemeinsame Agrarpolitik
GCCA	Global Climate Change Alliance
GDP	Gross Domestic Product
GEEREF	Global Energy Efficiency and Renewable Energy Fund
GNI	Gross National Income
GNP	Gross National Product
ICT	Information and Communication Technologies
IFO	Institute for Economic Research
IGA	Intergovernmental Agreement (on the reform of Commonwealth-State Financial Relations)
IMF	International Monetary Fund
IPA	Instrument for Pre-Accession
JRC	Joint Research Center
LMP	Labour Market Policies
MDGs	Millennium Development Goals
NATO	North Atlantic Treaty Organisation
NCLB	No Child Left Behind Act
NGOs	Non Governmental Organisations
OCA	Optimal Currency Area
OECD	Organisation for Economic Cooperation and Development
OMC	Open Method of Coordination
PAC	Politique agricole commune
R&D	Research and Development
SACs	Special Areas of Conservation
SCF	Structural and Cohesion Funds
SCG	Sub-Central Government
SCP	Bureau of Social and Cultural Planning (Sociaal Cultureel Planbureau)
SF	Structural Fund
SGP	Stability and Growth Pact
SI	Stability Instrument
SMEs	Small and Medium-sized Enterprises
SMR	Statutory Management Requirements
SPAs	Special Protection Areas
TANF	Temporary Assistance to Needy Families
TEN	Trans European Network
TEN-E	Trans European Energy Networks
TEN-T	Trans European Transport Networks
THC	Atlantic Thermohaline Circulation
TSO	Transmission System Operator
UE	Union européenne
UK	United Kingdom
UN	United Nations

UPU	Universal Postal Union
US	United States
VET	Vocational Education and Training
WEU	Western European Union
WTO	World Trade Organisation

Preface

In accordance with the conclusions of the European Council of 15 and 16 December 2005 and the Inter-institutional Agreement of 17 May 2006 between the European Parliament, the Council and the Commission on issues of budgetary discipline and sound financial management; the Commission has decided to undertake a “*full, wide-ranging review covering all aspects of EU spending, including the Common Agricultural Policy; and of resources, including the United Kingdom rebate*”, and report in 2008/2009. In this context, the Commission decided to launch two studies: one on EU spending and the other on the financing of the EU budget. The study on EU spending has been granted to a consortium comprising ECORYS Nederland BV, the Netherlands Bureau for Economic Policy Analysis (CPB) and the Institute for Economic Research (IFO). The consortium was advised by a team of academic experts; all leading authors in the fields of fiscal federalism, subsidiarity, public choice and institutional economics.

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Responsibility for the opinions and views presented in this final report rests exclusively with the authors and should not be attributed to the European Commission.

Executive Summary

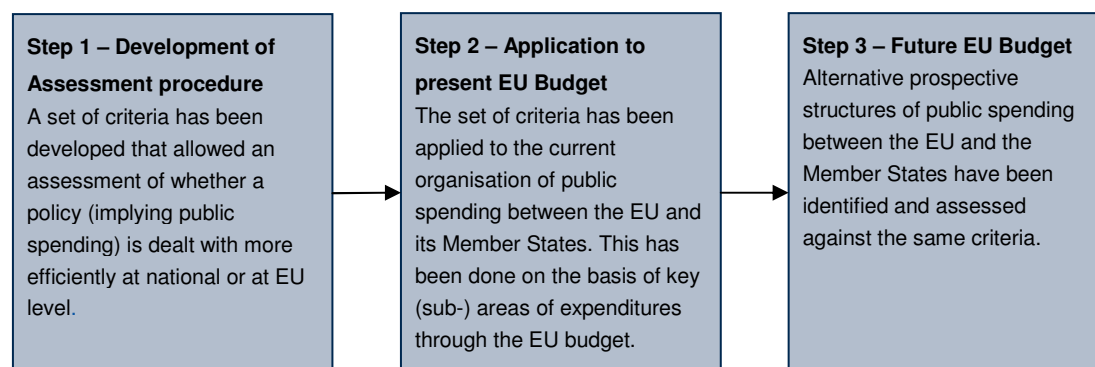
Objectives and approach of the study

The main goal of the Study on EU Spending is to make proposals on the main areas of policy in which expenditure from the EU Budget should be concentrated in future years. The study has a strong focus on the EU budget, but it also includes spending activities by the European Union outside the EU budget. While there are good reasons to study the financing of the EU budget at the same time, the scope of the study is limited to spending only. The objectives are:

1. What does the current system of EU spending look like, i.e. what are its characteristics and bottlenecks?
2. What are the alternatives and do they mitigate the weaknesses of the current system?

The objectives of the study were approached systematically in three steps as described in Figure 1 below.

Figure 1 Study approach



Assessment of the current EU budget

This study assesses the extent to which the subsidiarity principle is applied to public spending in Europe. The assessment procedure is based on two basic public finance questions: (i) *what are the reasons for government interventions?* – these relate to market failures (allocation), redistribution, and stabilisation – and (ii) *what instruments are optimally available?* Both questions form the background of the assessment of the question *who should do what: the EU or national governments?* This question forms the focal point of this study.

The analysis takes into account both normative and positive criteria. The normative criteria consist of arguments from an economic efficiency perspective: economies of scale, externalities and heterogeneity of preferences. The positive criteria relate to other reasons for (EU) countries to cooperate from a public choice / political economy perspective; these include: limits to system competition, second-best arguments,

complementarity between policies and lobbying. The normative line of reasoning prevails while assessing subsidiarity, since it provides the *most robust benchmark* against which to evaluate. While applying the assessment, arguments such as vested interest and path dependency are considered as well. Although these are not common economic arguments, they are real-world phenomena that can not be simply ignored.

Not accounting for political considerations, and strictly applying the assessment to the budget according to economic principles, would imply that some policy areas would shift from the centre to the Member States: the funds for the Competitiveness and Employment objective; almost the entire first pillar of the CAP; as well as a considerable share of Rural Development. The EU budget for some of the other policy areas would increase. In some cases, this would imply a shift from Member States' budgets to the EU budget; and thus not necessarily an increase in the total public spending in the EU (e.g. in R&D, Transport and Energy and Foreign Aid). In other cases, this would only imply an increase of the EU budget (e.g. in Environment and Maritime Policies); and thus an increase in the total public spending in the EU. Due to path dependency, a fully economic efficient budget could not be achieved immediately. Therefore the study presents both the 'gradual' and the 'economically efficient' implications for the EU budget.

Consequences for the EU budget

	Title	Commitments 2007	Changes to the budget	
		As % of total commitments	Gradual	Economically efficient
Macroeconomic	1	0.4	0	0
Social Affairs and Employment	(4)	0.7	0	0
Cohesion Policy	13, 4	31.7	-	--
Competitiveness and Single Market Policies	2,3, 12, 14, 20	0.6	0	0
Research and Development	8, 10	3.5	+	++
Education and Culture	15	1.0	0	0
Environment	7	6.6	+	++
Agriculture and Rural Development	5	40.8	-	----
Fisheries and Maritime issues	11	0.7	+ ¹	++ ¹
Network industries (Energy, Transport, Information society, Postal sector)	6, 9,	2.6	+	++
Health and Consumer Policy	17	0.4	0	0
Freedom, Security and Justice	18	0.7	0	0
Defence	n.a.	n.a.	?	+
Foreign Aid and Neighbourhood Policies	19, 21, 22, 23	5.5	+	++
Legend:				
Minor increase ->	+	++	+++	++++
Minor decrease ->	-	--	---	----
				<- Major increase
				<- Major decrease

Note: The plus and minus signs indicate the intensity of relative changes in the size of budget chapters.

¹ The increase here only relates to maritime policies, *not* fisheries.

Future of the EU budget

Based on the assessment of the current budget, and taking into account prospects for the coming decades, the study indicates which budget areas are likely to become (more) important in the future. This study proposes three **policy packages** to reform the budget in terms of expenditures. The budgetary reform packages are: (i) Climate change and energy resources; (ii) Knowledge and innovation; (iii) Common security and foreign affairs. Each policy package emphasises a policy area for which we have good reasons to assume that EU involvement has to be intensified.

Résumé (version courte)

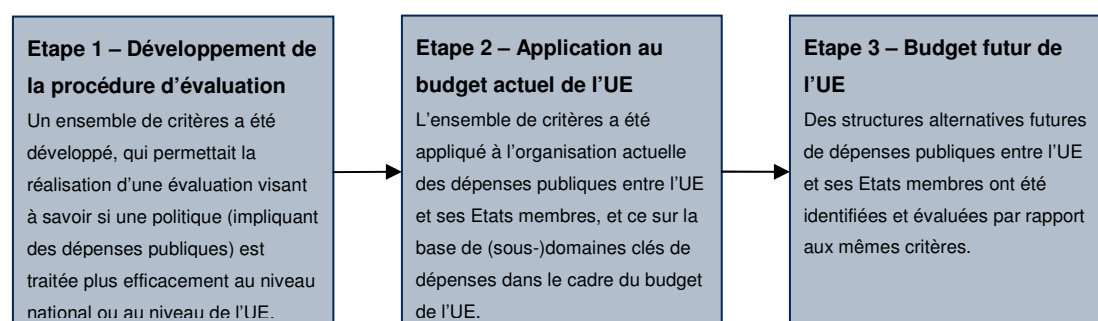
Objectifs et approche de l'étude

Le principal objectif de l'étude relative aux dépenses de l'UE est de formuler des propositions dans les principaux domaines politiques sur lesquels les dépenses effectuées à partir du budget de l'UE devraient se concentrer au cours des années à venir. L'étude est fortement axée sur le budget de l'UE, mais elle comprend également des dépenses réalisées par l'Union européenne en dehors du budget de l'UE. Alors qu'il existe de bonnes raisons d'étudier simultanément le financement du budget de l'UE, la portée de l'étude se borne aux seules dépenses. Les objectifs sont :

1. A quoi ressemble le système actuel des dépenses de l'UE, c.-à-d. quelles sont ses caractéristiques et ses goulots d'étranglement ?
2. Quelles sont les alternatives et atténuent-elles les faiblesses du système actuel ?

Les objectifs de l'étude sont systématiquement abordés en trois étapes telles que décrites dans la figure ci-dessous.

Figure 1 Approche de l'étude



Evaluation du budget actuel de l'UE

Cette étude évalue la mesure dans laquelle le principe de subsidiarité est appliqué aux dépenses publiques en Europe. La procédure d'évaluation repose sur deux questions fondamentales relatives aux finances publiques : (i) *quelles sont les raisons qui incitent le gouvernement à intervenir ?* – elles se rapportent aux défaillances du marché (allocation), à la redistribution et à la stabilisation – et (ii) *quels sont les instruments disponibles de manière optimale ?* Ces deux questions sont à l'origine de l'évaluation de la question : *qui devrait faire quoi : l'UE ou les gouvernements nationaux ?* ; et cette question constitue le point de convergence de cette étude.

L'analyse tient compte de critères tant normatifs que positifs. Les critères normatifs comprennent des arguments vus sous l'angle de l'efficacité économique : des économies d'échelle, des externalités et l'hétérogénéité des préférences. Les critères positifs se rapportent à d'autres raisons incitant les pays (de l'UE) à coopérer du point de vue d'un

choix public / de l'économie politique. Ils comprennent : des limites à la concurrence du système, des arguments de second best, la complémentarité entre les politiques et le lobbying. Tout en évaluant la subsidiarité, le raisonnement normatif s'impose, puisqu'il fournit la *référence la plus robuste* par rapport à laquelle l'évaluation est menée. Tout en réalisant l'évaluation, des arguments tels qu'un intérêt personnel et le parcours suivi sont également pris en considération. Bien qu'il ne s'agisse pas d'arguments économiques courants, ces phénomènes sont bien réels et on ne peut tout simplement pas les ignorer.

La non-justification des préoccupations politiques et l'application stricte de l'évaluation au budget selon des principes économiques impliqueraient le glissement de certains domaines politiques du centre vers les Etats membres : les fonds destinés à l'objectif de compétitivité et d'emploi, presque l'intégralité du Premier pilier de la PAC et une part considérable du développement rural. Le budget de l'UE réservé à d'autres domaines politiques devrait augmenter. Dans certains cas, cette hausse devrait prendre la forme d'un glissement des budgets des Etats membres vers le budget de l'UE, et donc pas nécessairement une augmentation des dépenses publiques totales au sein de l'UE (par ex. dans la R&D, le transport, l'énergie et l'aide à l'étranger). Dans d'autres cas, ceci ne devrait impliquer qu'une augmentation du budget de l'UE (par ex. dans les politiques écologiques et maritimes) et partant, une augmentation des dépenses publiques totales au sein de l'UE.

En raison du parcours suivi, un budget totalement efficient au niveau économique ne pourrait pas être atteint immédiatement. L'étude présente dès lors des implications à la fois 'graduelles' et 'économiquement efficientes' pour le budget de l'UE.

Conséquences pour le budget de l'UE

	Titre	Engagements 2007 <i>En % des engagements totaux</i>	Changements apportés au budget	
			Graduels	Economiquement efficients
Macroéconomie	1	0.4	0	0
Affaires sociales et emploi	(4)	0.7	0	0
Politique de cohésion	13, 4	31.7	-	--
Politiques de compétitivité et de marché unique	2,3, 12, 14, 20	0.6	0	0
Recherche et développement	8, 10	3.5	+	++
Education et culture	15	1.0	0	0
Environnement	7	6.6	+	++
Agriculture et développement rural	5	40.8	-	----
Pêche et questions maritimes	11	0.7	+ ²	++ ¹
Industries de réseau (énergie, transport, société de	6, 9,	2.6	+	++

² L'augmentation ne concerne ici que les politiques maritimes, pas la pêche.

	Titre	Engagements 2007	Changements apportés au budget	
		<i>En % des engagements totaux</i>	Graduels	Economiquement efficaces
l'information, secteur postal)				
Politique de la santé et des consommateurs	17	0.4	0	0
Liberté, sécurité et justice	18	0.7	0	0
Défense	n.a.	n.a.	?	+
Politiques d'aide à l'étranger et de voisinage	19, 21, 22, 23	5.5	+	++
Légende :				
Hausse mineure ->	+	++	+++	++++ <- Hausse majeure
Hausse mineure ->	-	--	---	---- <- Hausse majeure

Note : les signes plus et moins indiquent l'intensité des changements relatifs dans la taille des chapitres du budget.

Avenir du budget de l'UE

Sur la base de l'évaluation du budget actuel et en tenant compte des perspectives pour les décennies à venir, l'étude indique les domaines budgétaires qui ont des chances de devenir (plus) importants à l'avenir. Cette étude propose trois **paquets politiques** pour réformer le budget en termes de dépenses. Les paquets de réforme budgétaire sont les suivants : (i) le changement climatique et les ressources énergétiques ; (ii) la connaissance et l'innovation ; (iii) la politique étrangère et de sécurité commune. Chaque paquet politique met l'accent sur un domaine politique pour lequel nous avons de bonnes raisons de supposer que l'implication de l'UE doit être intensifiée.

Kurzzusammenfassung

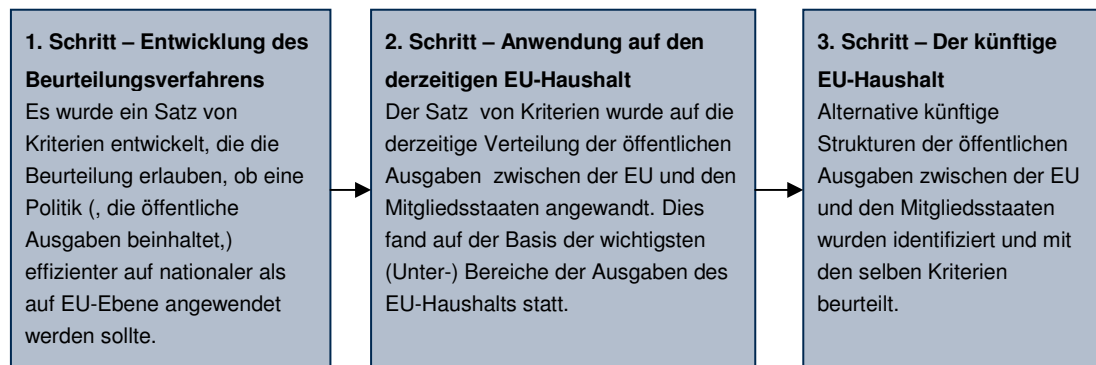
Ziele und Vorgehensweise

Es ist das zentrale Ziel der Studie zu den Ausgaben der EU, Vorschläge für die wichtigsten Politikbereiche zu unterbreiten, auf welche die künftigen Ausgaben des EU-Haushalts konzentriert werden sollten. Die Studie richtet sich vornehmlich auf den EU-Haushalt, aber berücksichtigt auch die Ausgaben der Europäischen Union außerhalb des EU-Budgets. Obwohl es gute Gründe dafür gibt, gleichzeitig die Finanzierung des EU-Haushalts zu beleuchten, beschränkt sich die Studie auf die Ausgaben. Sie setzt sich die folgenden Ziele:

1. Wie sieht das derzeitige System der EU-Ausgaben aus, d.h. was sind seine typischen Merkmale und Engpässe?
2. Was sind die Alternativen und können sie die Schwächen des derzeitigen Systems verringern?

Die Ziele der Studie wurden systematisch in drei Schritten verfolgt, die in der folgenden Abbildung beschrieben werden:

Abbildung 1 Ansatz der Studie



Beurteilung des derzeitigen EU-Haushalts

Diese Studie beurteilt, wie weit das Prinzip der Subsidiarität auf die öffentlichen Ausgaben in Europa angewandt wird. Das Beurteilungsverfahren basiert auf zwei Fragen der Finanzpolitik: (i) *was sind die Gründe für staatliche Interventionen?* – diese beziehen sich auf Marktversagen (Allokation), Umverteilung und Stabilisierung – und (ii) *welche Instrumente stehen bestenfalls zur Verfügung?* Beide Fragen bilden den Hintergrund für die Beurteilung der Frage *wer sollte was tun: die EU oder die nationalen Regierungen?*; und diese Frage steht im Mittelpunkt dieser Studie.

Die Analyse berücksichtigt sowohl normative als auch positive Kriterien. Die normativen Kriterien bestehen aus Argumenten aus der Perspektive der wirtschaftlichen Effizienz:

Größenvorteile, Externalitäten und heterogene Präferenzen. Die positiven Kriterien beziehen sich auf andere Gründe für eine Zusammenarbeit von (EU-) Ländern aus der Perspektive der Public Choice/politischen Ökonomie; diese umfassen: Grenzen des Systemwettbewerbs, Second Best-Argumente, die Komplementarität zwischen Politik und Lobbying. In der Beurteilung der Subsidiarität überwiegt die normative Denkmethode, da sie den *stabilsten Bezugspunkt* darstellt, gegenüber dem bewertet werden kann. Bei der Beurteilung werden auch Argumente wie Eigeninteresse und Pfadabhängigkeit berücksichtigt. Obwohl es sich bei diesen nicht um allgemeine ökonomische Argumente handelt, sind sie doch reale Phänomene, die man einfach nicht ignorieren darf.

Ließe man politische Betrachtungen außer acht und bezöge man die Beurteilung streng nach wirtschaftlichen Prinzipien auf den Haushalt, würden einige Politikbereiche vom Zentrum zu den Mitgliedsstaaten verlagert: die Mittel für das Ziel der Wettbewerbsfähigkeit und Beschäftigung, fast die ganze Erste Säule der GAP und ein bedeutender Anteil der ländlichen Entwicklung. Der EU-Haushalt für andere Politikbereiche würde sich erhöhen. In einigen Fällen würde dies eine Verlagerung von den Haushalten der Mitgliedsstaaten zum EU-Haushalt bedeuten; und somit nicht notwendigerweise eine Erhöhung der gesamten öffentlichen Ausgaben der EU (z.B. für F&E, Transport und Energie und Entwicklungshilfe). In anderen Fällen würde es nur eine Erhöhung des EU-Haushalts bedeuten (z.B. für Umweltpolitik und maritime Angelegenheiten) und somit höhere öffentliche Gesamtausgaben der EU.

Weil aufgrund von Pfadabhängigkeit ein vollständig ökonomisch effizienter Haushalt nicht sofort erzielt werden könnte, präsentiert die Studie sowohl 'graduelle' als auch 'ökonomisch effiziente' Auswirkungen auf den EU-Haushalt.

Auswirkungen auf den EU-Haushalt

	Titel	Gebundene Mittel 2007 <i>Als % der gesamten gebundenen Mittel</i>	Veränderungen des Haushalts	
			Graduell	Ökonomisch effizient
Makroökonomie	1	0.4	0	0
Beschäftigung und soziale Angelegenheiten	(4)	0.7	0	0
Kohäsionspolitik	13, 4	31.7	-	--
Wettbewerbsfähigkeit und Binnenmarktpolitik	2,3, 12, 14, 20	0.6	0	0
Forschung und Entwicklung	8, 10	3.5	+	++
Erziehung und Kultur	15	1.0	0	0
Umwelt	7	6.6	+	++
Landwirtschaft und ländliche Entwicklung	5	40.8	-	----

	Titel	Gebundene Mittel 2007 <i>Als % der gesamten gebundenen Mittel</i>	Veränderungen des Haushalts	
			Graduell	Ökonomisch effizient
Fischerei und maritime Angelegenheiten	11	0.7	+ ³	++ ¹
Netzwerk-Industrien (Energie, Transport, Informationsgesellschaft, Postsektor)	6, 9,	2.6	+	++
Gesundheits- u. Verbraucherpolitik	17	0.4	0	0
Freiheit, Sicherheit und Recht	18	0.7	0	0
Verteidigung	n.a.	n.a.	?	+
Entwicklungshilfe und Nachbarschaftspolitik	19, 21, 22, 23	5.5	+	++
Legende:				
Geringe Erhöhung ->	+	++	+++	++++ <- Große Erhöhung
Geringe Kürzung ->	-	--	---	---- <- Große Kürzung

Anmerkung: Die Plus- und Minus-Zeichen zeigen die Intensität der relativen Veränderung in der Höhe der Haushaltskapitel.

Die Zukunft des EU-Haushalts

Auf der Basis der Beurteilung des derzeitigen Haushalts and unter Berücksichtigung der Aussichten für die kommenden Jahrzehnte, weist die vorliegende Studie auf die Haushaltsbereiche hin, die wahrscheinlich künftig wichtiger werden dürften. Die Studie schlägt **drei Politikpakete** vor, um den Haushalt hinsichtlich der Ausgaben zu reformieren. Die Haushaltsreformpakete sind: (i) Klimawandel und Energiequellen; (ii) Wissen und Innovation; (iii) Gemeinsame Sicherheits- und Außenpolitik. Jedes Politikpaket betont einen Politikbereich, für den wir mit guten Gründen davon ausgehen können, dass das Engagement der EU intensiviert werden muss.

³ Der Anstieg bezieht sich hier nur auf maritime Angelegenheiten, *nicht* auf die Fischerei.

Non-technical Summary

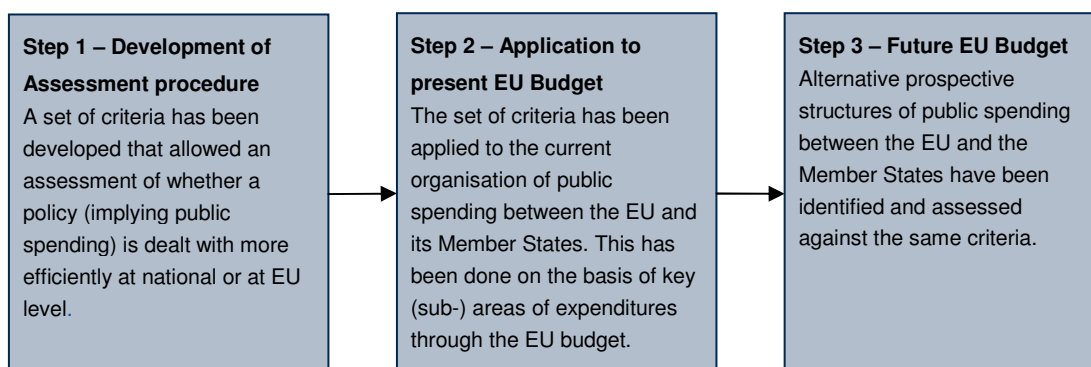
Objectives and approach of the study

The main goal of the Study on EU Spending is to make proposals on the main areas of policy in which expenditure from the EU budget should be concentrated in future years. The study has a strong focus on the EU budget, but it also includes spending activities by the European Union outside the EU budget. While there are good reasons to study the financing of the EU budget at the same time, the scope of the study is limited to spending only. The objectives are:

1. What does the current system of EU spending look like, i.e. what are its characteristics and bottlenecks?
2. What are the alternatives and do they mitigate the weaknesses of the current system?

The objectives of the study were approached systematically in three steps as described in Figure 1 below.

Figure 1 Study approach



Assessment procedure

This study assesses the extent to which the subsidiarity principle is applied to public spending in Europe. The assessment procedure is based on two basic public finance questions: (i) *what are the reasons for government interventions?* – these relate to market failures (allocation), redistribution, and stabilisation – and (ii) *what instruments are optimally available?* Both questions form the background of the assessment of the question *who should do what: the EU or national governments?* This question forms the focal point of this study.

The analysis takes into account both normative and positive criteria. The normative criteria consist of arguments from an economic efficiency perspective: economies of scale, externalities and heterogeneity of preferences. The positive criteria relate to other reasons for (EU) countries to cooperate from a public choice / political economy perspective. Table 1 presents the assessment procedure.

Table 1 Assessment procedure

	Sequence	Reasons for centralisation: <i>the need to act in common</i>	Reasons for decentralisation	Remarks
WHO SHOULD DO WHAT?	1a	Economies of scale Externalities		Normative assessment along the lines of Fiscal Federalism
	1b		Heterogeneity of preferences	
	2a	Limits to system competition Second-best Complementarity between policies Lobbying		Positive assessment of additional arguments from Political Economics and Public Choice
	2b		Self-interest and Accountability Common pool Lobbying	
	3	Credibility of co-operation		
	4	Proportionality		

The normative line of reasoning prevails while assessing subsidiarity, since it provides the *most robust benchmark* against which to evaluate. The issue of credibility of cooperation is seen as cut-off point: when the need to act in common has been established, centralisation is not required when voluntary cooperation among Member States is credible. This step is only dealt with to a limited extent in the study below. Finally, proportionality is a logical follow-up to the subsidiarity test. It addresses not so much what problem to address or at what level, but *how* to address it (through regulation and/or spending).

The first part of the study applies the assessment procedure to the current EU budget. For this reason, 14 policy domains have been distinguished. The second part of the study deals with future challenges and analyses possible changes to the budget which are likely to become necessary in the future. A brief overview of the main conclusions is presented below.

Assessment of the current EU budget

The study has applied the assessment procedure to the present EU budget. Below, the main conclusions are summarised, distinguishing between policy fields where the assessment concludes that no (significant) change would be required; policy fields where a downward change would be required; and policy fields where an upward change would be required.

Policy fields – Assessment concludes: no change

Stabilisation

The current EU budget is not involved in fiscal stabilisation policies. Present policy coordination through the Stability and Growth Pact (SGP) addresses the desire for heterogeneity in allocation and equity, while accounting for complementarities between monetary and fiscal policies. Public choice arguments strengthen the case for decentralising decisions on public spending and taxation.

Social Policies

The normative arguments support the current division of employment and social policies. Europe is highly heterogeneous, economies of scale in labour market policy are absent, and externalities are modest. However, ESF spending for the convergence objective to poorer regions in poorer Member States is justified because of the lack of financial and institutional capacity. It makes less sense for the EU to finance these policies in poorer regions of richer Member States, because the argument of lack of financial and institutional capacity does not apply.

For the budget activities on ‘other labour market policies and social dialogue’, the EU is the right level of intervention. While normative arguments are lacking with respect to the European Globalisation Adjustment Fund, the complementarity of policies and other political economy considerations support such a fund, under certain conditions. EU coordination and the establishment of minimum requirements could address possible harmful competition between social security / assistance systems. But this does not involve the budget. Overall the budgetary role for the EU remains modest.

Competitiveness and the Single Market

Most of the policies for Competitiveness and the Single Market involve administrative expenditures related to regulation, coordination, consultation and information. Some activities (concerning anti-fraud and standardisation) may require funding, but these requirements remain relatively small.

Competitiveness and Single Market policies

The normative reasons for common Internal Market policies are overwhelming: there are economies of scale and scope that directly result from the internalisation of (regional) economic spillovers due to larger markets. Moreover, integration allows for internalising external effects of national trade policies towards other Member States. Furthermore, economies of scale exist in relation to a common external policy. Tax and customs

coordination is, therefore, required. Furthermore, the free movement of goods requires a common set of standards on health and safety issues.

Competitiveness and innovation

Competitiveness is clearly a cross-border issue, resulting from cross-border spillovers and scale economies. Despite the fact that innovation and entrepreneurship is dependent on local circumstances, EU involvement may be justified on the grounds of cross-border knowledge spillovers, and cross-border spillovers and scale economies in regional growth. The current programmes under CIP are, however, mainly targeted at SMEs featuring lower economies of scale and fewer externalities. On the other hand, the programmes are also aimed at stimulating entrepreneurship and innovative cultures. In this case limited co-funding of the EU may be warranted; however, these policies should be aimed at the cross border spillovers involved.

Education and Culture

Member States seem to be the appropriate level for policies concerning the provision of primary and secondary education, vocational education and training and culture. This is due to the diversity in preferences and circumstances and a lack of economies of scale and externalities. In the area of tertiary education, arguments point towards the same conclusion: there is heterogeneity in the quality of universities and evidence of scale economies and externalities is absent. However, arguments related to the complementarity of policies and second-best solutions underpin EU expenditures in tertiary education; these arguments relate to the promotion of international cooperation and student mobility. Because most of the EU budget for lifelong learning is reserved for these goals, budget activities of the EU in this area are justified. From a budgetary perspective, the role of the EU in the field of education remains nevertheless limited.

Similar arguments apply to the promotion of cultural cooperation and the promotion of EU citizenship: to promote international cooperation and (labour) mobility. Some of the youth programmes have similar objectives; but other measures of the *Youth in Action* programme (European Voluntary Service, Youth of the World, and youth workers and support systems) have other goals which can be better financed by the Member States.

Common Fisheries Policy

The ‘fisheries problem’ is a typical example of supra-national externalities. Controlling the ‘fisheries problem’ requires central regulation on the maximum tonnage of fish caught. Subsequently, the centre needs to monitor and enforce such regulation and therefore there is little need for budgetary measures. However, the socio-economic impact of regulation may require *one-off* (budgetary) compensation mechanisms from the centre to compensate the ‘losers’; this would be justified on grounds of equity (or solidarity). Some reservation could be made within the budget for such one-off payments, but it would not justify a considerable increase in the budget for fishery policies.

Health and Consumer Policy

The current EU health and consumer policies comprise mainly regulatory policies. These are justified as an EU activity as long as these serve EU-wide objectives. In some cases, there are economies of scale and external effects of national policies. Heterogeneity is much more limited than in other policy areas – particularly in the case of food safety,

animal health, animal welfare, plant health and public health. For some parts of consumer policy and public health, policies are not related to the scale of the European market. Consequently, Member States seem to be the appropriate government level to address these policies. In healthcare policies, economies of scale of centralisation and externalities of decentralisation are hardly present; while diversity is enormous. A system of increased coordination and information exchange in the European healthcare sector may be needed.

Freedom, Security and Justice

Although some of the EU budget activities in this policy area have an international dimension, the Member States are the appropriate levels to address most tasks related to public order. In some cases, there are economies of scale for EU cooperation, and national policies have negative external effects – in particular in the area external borders, visa policy and free movement and security. Also with respect to migration policies (asylum and immigration), there are economies of scale and externalities of national policies which argue in favour of EU coordination and budgetary involvement – notably in addressing illegal migration and trafficking. However, most of the budget for the integration of third-country nationals is aimed at the integration into the host Member State; whereas this level knows the local circumstances much better and is the appropriate level to conduct and finance integration policies. Budgetary involvement of the EU for integration of asylum seekers can only be justified on the grounds of some solidarity reason in the case asylum seekers are spread unevenly across EU countries.

The current (low) level of spending in the area of Justice and Home Affairs is warranted and is unlikely to increase in short to medium term. Overall, the total budget would remain marginal.

Policy fields – Assessment concludes: downward change

Cohesion

Cohesion Policy is the second largest item of the EU budget, and is manifested in the European Regional Development Fund (ERDF), the European Social Fund (ESF), and the Cohesion Fund (CF). The three objectives of Cohesion Policy are: convergence, regional competitiveness and employment, and territorial cooperation. Concerning ‘convergence’, the assessment (see Table 2) concludes that the present amounts in the EU budget are justified, but no additional changes would be expected. In the field of Cohesion Policy related to ‘regional competitiveness and employment’, the present amounts in the EU budget are insufficiently justified and downward budgetary adjustments would be expected. In the field of Cohesion Policy related to ‘territorial cooperation’, there is a role for the EU budget, though the amounts are relatively small and may remain so.

Table 2 Assessment of Cohesion

Convergence	Regional competitiveness and employment	Territorial cooperation
EU involvement is justified on many grounds, e.g. complementarities between policies, second-best issues and solidarity among Member States. Arguments for redistribution and preventing emigration from low-income regions also argue in favour. Here, the redistributive argument is complementary to the allocation objectives of convergence. This is also a prerequisite, because although the contribution of the structural and cohesion payments to poorer regions in poorer Member States to a better income distribution and to stabilisation is a welcome <i>by-product</i>, it does not by itself justify EU involvement in Cohesion Policy. Additional arguments relating to scale economies and externalities would be required. This is the case for the funds that are allocated for regional convergence in the poorer Member States. In this case there are clear economies of scale for EU involvement with respect to financial and institutional capacity. Furthermore, if convergence concerns an entire (or much of a) Member State, the argument for EU involvement is more persuasive than if it is just a smaller territory. Eligibility should, however, be tight and also include substantial co-financing from the Member States to prevent lobbying and common pool behaviour.	In practice, ESF and ERDF are aimed at regional competitiveness and employment and flow exclusively to regions in relatively rich Member States which have both (i) the financial capacity to finance these policies, and (ii) the institutional capacity to govern and monitor sponsored projects. For the improvement of regional competitiveness and employment there is thus not much of a reason for EU budgetary involvement. However, EU co-financing of R&D activities can be justified, but these activities need not be financed in a regional policy framework. Furthermore, the diversity argument leans towards national involvement: Member States have better knowledge of the specifics of their regions than the EU, and have better incentives to spend the money more effectively.	At present, the amounts dedicated to territorial cooperation are small (about 2.5% of the overall cohesion budget). Normative arguments point towards favouring EU policies for cross-border cooperation. The EU budget can provide the means to support decentralised policy-making by internalising external effects of regional policies. The funds could be vulnerable for common pool problems, but to some extent this is limited due to the requirement of request by cross-border regions; moreover, regional co-funding can to some extent prevent crowding-out from other projects.

Agriculture and Rural Development

Although the EU places much greater emphasis on rural development now than in the past, the current budget still allocates 81% of its funds to the first pillar (Market and Income Support) and 19% to the second (Rural Development). Programmes of the latter pillar are co-financed by the Member States.

Path dependency seems to be the main argument for the current existence of direct payments and market interventions. The normative analysis concludes that market policies in agriculture should be abolished. Arguments in favour of centralisation relate to scale economies in international negotiations, and to negative spillovers from decentralisation that negatively affect the Internal Market. However, the overall consensus on the distorting effects of market interventions and the possible alternatives from regulation strongly question the proportionality of EU spending.

The case for centralisation of direct payments is less clear. Both normative and positive analyses argue for decentralisation of such (personal) income support policies. There are no clear economies of scale, nor is there any internalisation of externalities if these activities are conducted at EU level. Furthermore, there are considerable differences in the preferences of Europeans on the topic of farmer income support. Because these policies are to a large extent a transformation of previous market and intervention policies, it is understandable that these policies are part of the EU budget. However, economic reasoning suggests that it is sensible to shift these policies to the Member States in the future.

Common pool problems for both Rural Development policies and direct payments constitute a further reason to concentrate spending at the Member State level. At the level of implementation, this is already happening; though the principle of fiscal equivalence would suggest matching the financing. Some subsidisation of the EU may be justified, however, based on externality arguments related to non-market by-products (multifunctionality).

Policy fields – Assessment concludes: upward change

Research

In the area of research, the presence of scale economies and externalities is expected and the role of the EU in providing funding for R&D is therefore appropriate. However, heterogeneity among the members of the EU is large and has increased with the enlargement in 2004. Economies of scale are identified in centralising R&D funding, such as EURATOM, JRC, Cooperation, Ideas and Capacities regarding infrastructure. In addition, the programmes Cooperation, Ideas, and People internalise spillovers. Given the economies of scale and externalities involved, it could be argued that a part of the national R&D budget should be shifted to the EU for specific categories and/or sectors. These include, for example, defence, space industry, exploration, and infrastructure. In these areas, indivisibilities could be high, implying substantial economies of scale.

To the extent that R&D funding is directed to SMEs or specific regions, the role of the EU is less obvious. Economies of scale do not prevail, and externalities of national policies are absent. In addition, heterogeneity among Member States regarding policies aimed at SMEs is probably substantial.

Environment

The largest part of the small budget for environmental policies is devoted to the implementation of community environmental policy and legislation. There are, however,

other funds to pursue EU-level environmental policy: (i) funds embedded in the Cohesion and Structural Funds and the Rural Development funds (agri-environmental measures); (ii) research funds on Environment, Energy and Transport included in the 7th Research Programme; (iii) Global Energy Efficiency and Renewable Energy Fund (GEEREF).

The assessment of the current budget indicates a clear role for the EU budget in environmental policies relating to Nature and Biodiversity and to Climate Change. The main arguments for Nature and Biodiversity relate to the need to invest in preservation in order to address European/global spillovers. Other areas can either be addressed via regulation (Natural Resources and Waste) or do not involve cross-border spillovers (Environmental Health and Quality of Life).

Climate change is a global problem, with important global and intergenerational spillovers of national policies. In addition, there are scale economies in the EU taking up a role in international negotiations like the Kyoto Protocol; but this requires a clear mandate for the EU to coordinate and enforce internal EU policies as well. These policies typically involve regulatory and market-based measures (Emission Trading Scheme (ETS), procurement, tax incentives, and standards), and do not involve the budget to any great extent. However, additional spending may be required to ease the adoption of new technologies and showcases, central co-funding of R&D for energy-saving and other specific actions in fighting climate change. Finally, policies aimed at mitigation in developing countries can be centralised.

Common Maritime Policy

The Maritime Policy focuses on various issues that, in many cases, can be dealt with via regulation or coordination. In some cases, however, there seem to be clear arguments for EU budget involvement. The Maritime Policy agenda of the Commission has a cross-cutting approach involving multiple aspects of marine management: notably transport, research and environmental issues. With transport there are clear spillovers (savings in congestion in land transport) and scale economies (the ‘motorways of the sea’ *network*). With environment, the argument of spillovers is particularly relevant when addressing the causes of climate change. Notably there are gains to be made in terms of reduced CO₂ emissions per transported good when transport is done by ship (this is also a scale economies argument). Furthermore, the potential for developing cleaner engines is today much larger for maritime transport technologies than for land transport technologies. This may, however, also require some support for research; the element of sponsoring cooperation (i.e. research networks) is relevant.

Infrastructure/network industries

TEN programmes focus on bottlenecks in infrastructure (e.g. cross-border infrastructures (TEN-T), but potentially also cross-border interconnectors of energy networks (TEN-E)). These bottlenecks often occur in cross-border infrastructure and at the regional level (in which case, these are addressed through the regional funds and Cohesion Funds). National governments cannot credibly commit to addressing these issues, in which case co-financing by a supranational authority - the EU - is necessary.

Overall, the role in terms of the budget is quite limited, as most market failures can be addressed through regulation and/or supervision. Apart from the TENs, there are no clear

expenditures necessary in this respect. Outlays in terms of TENs could be increased to further integrate national markets (mostly for railways and roads) and/or as a result of further integration of national markets (e.g. the need to address rolling blackouts throughout Europe that have become a phenomenon because national electricity networks have become integrated). There may possibly be reasons for outlays in the field of strategic energy storage, but only if markets fail to produce sufficient price signals and/or market participants tend to be too short-sighted.

Defence

Strong arguments exist in favour of the pooling of resources in peace missions (foreign military interventions). The funds for these missions are covered outside the EU budget, as the Treaty does not allow financing operational expenditure having military and defence implications. For other missions (police, training, etc.), financing through the budget is possible and is indeed granted.

Defence is the prime example of a public good. There are clear externalities involved. If countries have similar geo-political interests, neighbouring countries could benefit substantially from the efforts of a country providing defence. Besides the externalities of providing defence at a decentralised level, countries cannot exploit the significant benefits of scale. A few aspects prevent the EU from taking more responsibilities and committing the associated spending levels in this area: (i) as mentioned the Treaty does not allow for the EU budget to finance operational expenditure having military or defence implications; (ii) some countries are neutral; (iii) there is diversity on defence spending and on which types of defence.

With respect to Rapid Reaction Forces, there are economies of scale resulting from the fact that not every country has to keep its own forces on standby all the time. Moreover, cooperation reduces the opportunities to free-ride. Participation in the Rapid Reaction Forces and missions is voluntary. Even if not all Member States want to participate in delivering troops and or military equipment, at least all countries could contribute financially. In the case of civil protection, economies of scale seem to be limited, as are the externalities of civil protection at national level. There seem to be no overwhelming reasons for any significant EU involvement, although a Rapid Reaction Force could be justified in case of emergencies.

Foreign Policies

The reasons for assigning competences in policies on Enlargement and the European Neighbourhood are born out of the fact that the spillovers involved are equivalent to the internal spillovers that formed the motives for forming the EU. As a consequence, discussions with third countries with respect to many regulatory issues (such as right of establishment, mutual recognition, harmonisation of standards, environmental regulation, etc.) can only be dealt with at the central level. IPA and ENP have also a socio-economic, political and security dimension. At each dimension, spillovers and scale economies are involved, and each dimension is complementary.

Development policy and humanitarian aid are typical policy fields where scale economies are involved, but where Member States feel less compelled to harmonise their foreign aid policies because of the absence of externality at EU level. However, free-riding problems

are involved that would argue in favour of centralised action. Centralisation would happen at the expense of heterogeneity in preferences.

Implications for the budget

In the assessment of the current budget, we considered arguments such as vested interest and path dependency. Although these are not common economic arguments, they are real-world phenomena that can not be simply ignored. In spite of this, it is useful for the political debate to know which directions to take. Therefore the study presents the implications for the EU budget both in terms of what would be ‘economically efficient’ and what may gradually be ‘feasible’.

An economically efficient budget

Strictly applying the assessment to the budget according to economic principles would imply that some policy areas would shift from the centre to the Member States: the funds for the Competitiveness and Employment objective, almost the entire first pillar of the CAP and a considerable share of Rural Development. The EU budget for other policy areas would increase. In some cases, this would imply a shift from Member States’ budgets to the EU budget; and thus not necessarily an increase in the total public spending in the EU (e.g. in R&D, Transport and Energy and Foreign Aid). In other cases, this would only imply an increase of the EU budget (e.g. in Environment and Maritime Policies) and thus an increase in total public spending.

A feasible budget

Budgetary reform discussions are generally characterised by resistance to decreases in spending within certain policy areas, and by resistance to increases in overall spending. This study argues for gradual yet persistent changes in the direction as indicated by economic arguments. This would mean a gradual decrease of EU spending on the Common Agricultural Policy and on the Competitiveness and Employment objectives, at the expense of persistent inefficient public spending. The inefficiency is not only related to the fact that the EU is involved in policies for which economic arguments are absent; but is also related to the fact that these choices require resources that cannot be spent on policies that the EU should be involved in.

Table 3 presents both the ‘gradually feasible’ and the ‘economically efficient’ implications for the EU budget. It shows that with regard to many policy fields, the EU budget passes the subsidiarity test. Furthermore, the table expresses that in practice, any change to the budget is likely to be gradual; although with some political will, it should be possible to improve efficiency in EU spending.

Table 3 Consequences for the EU budget

	Title	Commitments 2007 <i>As % of total commitments</i>	Changes to the budget	
			Gradual	Economically efficient
Macroeconomic	1	0.4	0	0
Social Affairs and Employment	(4)	0.7	0	0
Cohesion Policy	13, 4	31.7	-	--
Competitiveness and Single Market Policies	2,3, 12, 14, 20	0.6	0	0
Research and Development	8, 10	3.5	+	++
Education and Culture	15	1.0	0	0
Environment	7	6.6	+	++
Agriculture and Rural Development	5	40.8	-	----
Fisheries and Maritime issues	11	0.7	+ ⁴	++ ⁴
Network industries (Energy, Transport, Information society, Postal sector)	6, 9,	2.6	+	++
Health and Consumer Policy	17	0.4	0	0
Freedom, Security and Justice	18	0.7	0	0
Defence	n.a.	n.a.	?	+
Foreign Aid and Neighbourhood Policies	19, 21, 22, 23	5.5	+	++
Legend:				
Minor increase ->	+	++	+++	++++
Minor decrease ->	-	--	---	----
				<- Major increase
				<- Major decrease

Note: The plus and minus signs indicate the intensity of relative changes in the size of budget chapters.

Trends and future challenges

The second part of the study deals with future challenges and analyses what changes to the budget are likely to become necessary in the future. Before presenting future ‘policy packages’, the study first examines future developments that follow from today’s trends and political ambitions.

Globalisation

Globalisation is driven by a combination of various forces, including trade, technological change, social and cultural forces and political developments. Population growth, the scarcity of resources, and climate change, are also important driving forces.

⁴ The increase here only relates to maritime policies, *not* fisheries.

(1) Demography and migration

The highest rates of population growth will be expected in Western Asia and sub-Saharan Africa. By 2040, the population in sub-Saharan Africa will have doubled. Europe will experience a 4% decline in population; and Russia even a 10% population decline by 2030. The population will age worldwide. These trends would result in an increasing concentration in African, South-Central and Western Asian urban centres where people would have little hope of finding employment. These projections may have serious implications for despair, humanitarian disasters and migratory pressures.⁵ Food and water shortages (as a result of climate change) would give rise to increased potential for civil unrest and significant economic losses, increasing further migration pressures.

(2) Scarcity of resources

Globalisation, economic and population growth will lead to increased global demand for food. While agricultural industries in advancing countries will experience productivity growth and increased Asian demand may create opportunities for the African agricultural industry, the danger to food shortages may increase as a consequence of climate change; resulting in a reduction of arable land, shortage of water, increased flooding and prolonged droughts. Global demand for resources, raw materials and energy will also increase. Present projections indicate that global energy demand will rise by 55% in 2030 in comparison with 2005; final demand for energy in Europe will go up with 25%. Energy reserves may suffice for the next three decades, but subsequently, the shortages may become more problematic. The increasing dependence of the EU-25 energy system on energy imports raises concerns regarding the security of (oil and natural gas) supply in the long run.

(3) Global economic integration

The further integration of global goods and capital markets will further stimulate the development of economies, especially in Asia and South America; intensifying competition for European producers. This will affect the competitiveness of Europe.

Further European integration

The need for further political and economic integration, recognised by the Lisbon Treaty, will require European Member States to strive to achieve more political consensus. *Economic* integration will continue further and contribute to withstanding the competitive pressures from globalisation; though it may be restricted due to an inherent limit to the mobility of Europeans. Further economic integration in the EU will likely lead to convergence of living standards combined with a relatively even spread of economic activities. Regional disparities (e.g. between urban and rural areas) may persist, but concern primarily regional differences *within* Member States. Pressing challenges will be associated with regions along Europe's outer borders, which may be lagging behind in economic terms. This would require a structural approach focussing on investing in the European Neighbourhood.

Ageing European society

Europe's population may experience a modest decline over the next 20 years (about 4%) and will be ageing. By 2030, the old age dependency ratio will rise from 37% today to 62%. Consequently, public benefits to the elderly will rise significantly. Europe's ageing

⁵ See European Commission (2008)

society will increase healthcare expenditure and pensions. An increased scarcity of young and highly-educated employees may negatively affect Europe's competitive position and may result in fierce competition for young and skilled workers.

Enlargement

After the succession of today's (potential) candidate countries, it is expected that the EU cannot be enlarged boundlessly. The enlargement process is likely to extend the duration of regional disparities in the EU; but it will depend on the pace of the enlargement process and the pace at which new Member States integrate/converge. Room for close economic cooperation and integration with countries in the European Neighbourhood may continue, addressing some challenges on migration and cohesion: the more the EU integrates economically with the Neighbourhood, the less significant migration pressures and the problem of sluggish growth of Europe's outer border regions will be. As Europe enlarges, the potential for instability in the (new) European Neighbourhood may increase.

Climate change

Climate change will create the greatest challenge. The causes may be global, but the consequences will differ regionally and will be unevenly distributed. On a global scale, the poorest developing countries and people will suffer the earliest and the most. *Direct* consequences relate to failing crops and food and water shortages, to the destruction of eco-systems, and to extreme weather events, etc.; threatening access to water, food production, health, land use and the environment. *Indirect* consequences will comprise, for example, environmentally-induced migration pressures and increased global tension that may arise due to conflict over resources (notably food and water), damage to coastal areas and critical infrastructures, and new border disputes arising from loss of fertile land.

Within Europe, the future challenges concerning *adaptation* will be different from country to country, but all countries will have to deal with the consequences of climate change. Possible higher temperatures will lead to more unstable weather; rising sea-levels will impact countries located to the sea; rivers may flood more often; etc. The above mentioned global developments may result in global tensions affecting international security. As such, Europe will be facing challenges resulting from the fact that climate change may turn out to be a "threat multiplier which exacerbates existing trends, tensions and instability."⁶

Mitigation of global warming is more a challenge for today. The focus of attention should lie on reducing greenhouse gas emissions. Policies relating to the European economy should strongly focus on R&D support in terms of the production of technologies, dissemination of knowledge and technologies; and through regulatory measures such as taxation, emissions trading, and quotas. Policies relating to non-European economies should focus on the dissemination of technologies, international collaboration and development aid.

⁶ See European Commission 2008.

Future of the EU budget

Based on the assessment of the current budget and the prospects for the coming decades, this study indicates which budget areas are likely to become (more) important in the future. This study proposes three **policy packages** to reform the budget in terms of expenditures. The budgetary reform packages are: (i) Climate change and energy resources; (ii) Knowledge and innovation; (iii) Common security and foreign affairs. Each policy package emphasises a policy area for which we have good reasons to assume that EU involvement has to be intensified.

Policy package: Climate change and energy resources

Climate change will create large challenges which relate to mitigation, adaptation and security, and to the security and continuity of the energy supply.

Mitigation

Mitigation challenges lie in the fact that with deeper integration of EU economies, the (positive) spillovers of national policies to combat climate change will intensify (especially in relation to the production of technologies) and thus provide additional incentives for Member States to under-invest. To speed up the mitigation process, these spillovers should be supported by dissemination of clean energy and promotion of energy-saving technologies. The EU's leading role would require intense diplomatic efforts to induce actions (and investments) from other large economies in the world.

Adaptation

Within Europe, two challenges are relevant: (i) Is the EU the natural forum for coordinating actions? (ii) Is there a role for the EU budget in providing solidarity across Member States? National governments and existing bilateral and multilateral institutions face a major information advantage in addressing specific effects. Moreover, using the EU budget creates incentives for free-riding. This results from the fact that incentives for Member States to take preventive measures today would lessen, knowing that the EU will bail out Member States when future disasters strike. The disadvantage of this is possibly outweighed by the benefits from equity. A solidarity programme (like the Cohesion Funds) should have a structural (allocative) character, for example, focussing on river base management and coastal zone protection. Furthermore, if the risk of natural disasters increases due to climate change, it becomes more worthwhile to have a Rapid Reaction Force at EU level to cope with the costs.

Security of energy supply

Security of energy supply touches upon increased demand due to economic growth; the perceived depletion of fossil fuels; the variety of supply resources; the affordability of high energy prices; the security and reliability of gas and electricity networks and the development of alternative energy carriers. To a certain extent, policy-makers may rely on the market because, as prices increase, the scarcity of traditional energy sources will force companies and individuals to switch to other (non-traditional) energy sources. However, the development of alternatives will have to be stimulated before these can survive on the market. For this reason, the EU might regulate and subsidise new technologies and R&D.

The security and reliability of gas and electricity networks can be improved within the EU if national networks are inter-connected. The EU may be the appropriate actor to financially support the development of these networks if all else fails. Finally, spillover and scale effects in strategic facilities, for instance in gas storage facilities, may warrant some co-funding by the EU.

Table 4 presents the implications for the EU budget.

Table 4 EU budget for the Climate change and (energy) resources package

Budget activities in the policy areas	Explanation	Future change			
		Modest	Intensive		
Research and Development	Research and development of environmentally-friendly technologies and new energy carriers would require a substantial increase in the EU budget for R&D.	+	++		
Environment	The budget for Environment has to be increased substantially; particularly outlays on the articles on Global Environmental Affairs, implementation of community environmental policy and legislation, and rapid response and preparedness for emergencies.	++	+++		
Rural Development	The awareness of climate change and environment could lead to more attention for rural development related to the Environment and Maritime Policies. Though argued earlier that most spending on Rural Development should be shifted to the Member State or regional level, some externalities are involved from the perspective of individual countries (or regions), such as woods and landscape that extend to neighbouring countries.	0	+		
Maritime issues	Increased environmental awareness leads to more spending on conservation, management and exploitation of living aquatic resources and other environmental issues.	+	++		
Network industries (Energy, Transport, Information society, Postal sector)	EU spending on energy would lead to a substantial increase in Trans-European Networks, conventional and renewable strategies, research related to energy and transport and security, and the protection of energy and transport users.	++	+++		
Freedom, Security and Justice	An EU Rapid Reaction Force for fighting the consequences of natural disasters could be financed from the EU budget.	+	++		
Foreign Aid and Neighbourhood Policies	It would be in the interest of the EU to maintain a stable energy supply from (new) European neighbours. This could imply higher foreign aid and/or Neighbourhood policies spending to support stability and prosperity in these countries.	+	++		
Legend:					
Minor increase	+	++	+++	++++	Major increase

Policy package: Common security and foreign affairs

The trends on globalisation, European integration and climate change suggest that the relevance of common actions in security and justice, civil protection and defence, foreign policies, and humanitarian aid will increase. An unequal distribution of global wealth in combination with the projected demographic developments could create tensions; leading to political unrest and instability in other parts of the world. These tensions will be fuelled by the increasing scarcity of natural resources.

Migration

Migration pressures may result from the developments described above and may increase further as a consequence of climate change. This increases the pressure on asylum, migration and border policies. Increased (legal and illegal) migration flows may require more outlays in the field of domestic security. There is a need for Europe to act in common where receiving refugees is concerned, as migration flows to Europe may increase strongly. This may lead to increased free-riding behaviour by Member States in

receiving them. Migration may also be addressed at the source via increased development aid. Suitable immigration policies are important in dealing with an ageing society.

International crime and terrorism

Increased international mobility of people and goods also increases the vulnerability for and threat of international crime and terrorism. European coordination and cooperation become essential to improve security.

Europe's position in the world

The above security threats may require the EU to deploy enhanced foreign aid, and crisis prevention and management capacities. The importance for Europe's future leverage potential may even be more pressing given the fact that Europe will face a general reduction of economic and political power in the world due to a foreseen (economic) rise of Asia, and the consequence of an ageing European society. Europe's position in the world could be supported by the development of common security and foreign policies. This would require considerable additional expenditures.

Table 5 presents the implications for the EU budget.

Table 5 EU budget for the Common security and foreign affairs Policy package

Budget activities in the policy areas	Explanation	Future change			
		Modest	Intensive		
Freedom, Security and Justice	Spending on Freedom, Security and Justice and on solidarity (external borders, visa policy and free movement) has to be increased. The migration projections require effective border controls and common asylum and visa policies. Also the budget for migration flows has to be increased - but not the Migration Fund, since the integration of foreigners is mainly a national affair. Due to the rise of international crime and terrorism and a lack of internal border controls; the budget for security and safeguarding liberties, justice in criminal and civil matters, as well as policy strategy and coordination has to increase substantially.	+	++++		
Defence	A substantial EU role can be foreseen in military defence, intervention and foreign military aid and in a Common Foreign and Security Policy. This demands financial resources to support a Rapid Reaction Force, military equipment and military interventions abroad. For civil assistance, the assessment only foresees a role for EU in the creation of a Rapid Reaction Force.	+	++++		
Foreign Aid and Neighbourhood Policies	Resources are needed to develop and maintain good external relations, including: relations with Europe's neighbours, development cooperation and relations with ACP countries, and humanitarian aid.	+	++++		
Legend:					
Minor increase	+	++	+++	++++	Major increase

Policy package: Knowledge and innovation

In 2000, European leaders agreed that Europe has to become the most dynamic and competitive economy in the world by 2010. Recently, the European Council declared that the EU should progress with structural reforms, sustainable development and social

cohesion after 2010 (European Council, 2008). Raising productivity and competitiveness would be essential in coping with the challenges posed by globalisation, economic integration, enlargement and ageing.

Global economic integration and economic integration in the EU

Innovation, knowledge and Internal Market policies can help to mitigate the relative decline of European manufacturing due to globalisation. High education levels, flexible labour and product markets, development of high-tech products, and strong innovation networks can help to cope with the consequences of (economic) globalisation. The EU is an important actor in addressing these issues.

More EU economic integration in terms of mobility of capital, goods, services and people will give rise to increased spillover effects from national policies; in particular spillovers effects of knowledge and the diffusion of knowledge through trade, foreign direct investment and mobility. This could lead to an under-provision of innovation and R&D by the Member States as the benefit from these expenditures spills over to other Member States. Mobility of people is likely to increase, in particular among students and the more highly-educated. This could expand the EU budget; firstly, due to the increasing demand for supporting (student) mobility, and secondly, to compensate countries for higher education spending on foreign students as tuition fees often do not cover the full costs. Furthermore, increased mobility within Europe also increases the demand for transnational European networks. The capacity of transnational roads, railways, canals, etc. is likely to be extended, also considering the importance of increased environmental awareness.

Enlargement

The enlargement process may be limited from a governance perspective (relating to political integration), but the gravity forces that the European Union exerts on its neighbours will remain in terms of trade and migration pressures (i.e. in terms of economic integration). The limits to economic integration seem less constrained than the limits to political integration.

Cohesion spending is expected to remain within limits, as current spending directed to the Member States that joined the EU in 2004 and 2007 will be reduced due to catching up. Further enlargements may, however, temporarily call for increased cohesion spending.

With regard to extending membership of the European Economic Area, if the current EU members consider that sufficient purchasing power in the Internal Market is important for European businesses, a competitiveness fund to develop knowledge and innovation in European neighbours (the current ENP countries and Russia) could be important.

Ageing

Ageing will have a negative impact on the labour force in Europe. Ageing stresses the importance of knowledge and innovation because labour productivity, as the engine of economic growth, has to increase through better technology.

Table 6 presents the implications for the EU budget.

Table 6 EU budget for the Knowledge and innovation package

Budget activities in the policy areas	Explanation	Future change			
		Modest	Intensive		
Social Affairs and Employment	Increased integration and mobility of workers and students could increase the need for higher budgets for Education and Culture, Social and Employment Policies and Consumer and Health Policy. Doubling the budget would not require major resources. In the case economic integration (including worker mobility) increases, the social dialogue becomes more important.	+	++		
Cohesion Policy	For poorer Member States which cannot afford competitiveness and convergence in their poorer areas, Structural and Cohesion Funds could be used to increase innovation and competitiveness.	+	++		
Single Market policies	Competitiveness can be improved by promoting and facilitating the Internal Market through EU regulatory policies. For further policy development, implementation and monitoring of the Internal Market the (present small) budget has to be increased, particularly in the area of Internal Market, Taxation and Customs Union, Trade Policy, Competition Policy, and Enterprise (Internal Market innovation).	++	+++		
Research and Development	As R&D spillovers will increase due to further integration, under-spending of Member States has to be addressed by substantial increases in direct research and R&D by the EU. EU expenditures on R&D are directed to projects in which the EU has value added, both in terms of scale economies and internalisation of external effects of national policies. Expenditures on the programmes Cooperation and People should increase, as well as research funding on ICT.	++	+++		
Education and Culture	For Education and Culture an increase in the budget to promote schooling and education in other countries - including student grants and loans - is required.	++	+++		
Network industries (Energy, Transport, Information society, Postal sector)	With further economic integration Trans-European Networks become more important. The EU could be important for railways, canals and pipelines. If possible, private firms, or Member States should finance these networks. The EU has to cover the positive external effects of TEN's by co-financing.	++	+++		
Health and Consumer Policy	With increasing spillovers between Member States, an increasing number of consumer and health issues can be covered effectively at EU level. Current spending related to the development of the Internal Market would need to increase, for example, because new policy initiatives on integrating services markets would require less regulation at the national level. Also consumer regulation at EU level becomes more important.	++	+++		
Foreign Aid and Neighbourhood Policies	The budget for the new neighbours has to be increased to facilitate their entry into the Internal Market (for goods and services). As the economies of these countries develop, a huge consumer market for European business becomes accessible as well.	+	++		
Legend:					
Minor increase	+	++	+++	++++	Major increase

The EU budget could be reformed in all three directions or in only one. They could be reformed in gradual way or more intensely. Reforms could be financed by reducing spending on other budgetary items or by increasing the EU budget. Increasing the EU budget in some areas, more or less automatically implies lower spending in these areas at the Member State level. The trends and the assessment of the current budget would already imply more government attention in these policy areas than is currently the case. The three packages propose much more drastic budgetary reforms, however, than simply following a trend line.

1 Introduction

This study assesses the extent to which the subsidiarity principle is applied to public spending in Europe. The study has a strong focus on the EU's budget, but it also includes spending activities by the European Union outside the EU's budget. While there are good reasons to study the financing of the EU budget at the same time, the scope of the assignment was limited to spending only.

Below we first briefly discuss the objectives of the study and the process of the project. Subsequently, Section 1.2 briefly presents the methodology that is used throughout the report by introducing a procedure to assess subsidiarity. The scientific basis for this procedure is extensively discussed in Appendix 1 of this report. Section 1.3 follows with a presentation of the EU budget and the Financial Framework for 2007-2013. Section 1.4 concludes with a short reading guide for the remainder of the report.

1.1 Objectives and process of the study

Objectives

The main goal of the Study on EU Spending is to make proposals on the main areas of policy in which expenditure from the EU Budget should be concentrated in future years.

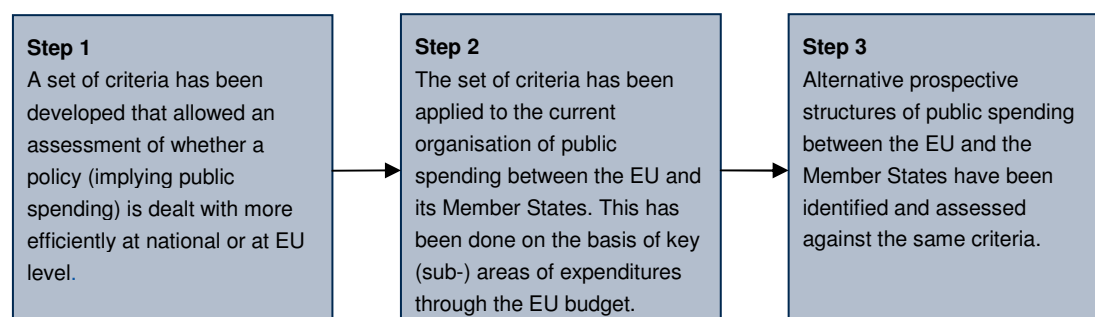
These objectives are formulated as follows:

1. What does the current system of EU spending look like, i.e. what are its characteristics and bottlenecks?
2. What are the alternatives and do they mitigate the weaknesses of the current system?

Process

The objectives of the study were approached systematically in three steps. These are described in Figure 1.1.

Figure 1.1 Organisational approach



Step 1

The objective of Step 1 was to develop a set of criteria in order to assess whether a policy implying public spending is dealt with more efficiently at national or at EU level.

Step 1 required an extensive elaboration on relevant theories (including fiscal federalism, multi-level public finance, public choice and institutional economics), placed within the European context of subsidiarity and proportionality.⁷ This work resulted in a methodology paper, which forms the theoretical basis for this study (see Appendix 1). This methodology paper works towards a so-called *assessment procedure* to establish subsidiarity, by combining the relevant criteria identified in the literature. As such, the paper has developed an *extended* subsidiarity test by combining both positive and normative arguments.

Step 2

The objective of Step 2 was to apply the set of criteria to the current organisation of public spending between the EU and its Member States.

For each policy area, this report evaluated the current budgetary activities in line with the assessment procedure as developed in Step 1. Furthermore, it was assessed whether there were activities that are currently not in the EU budget, but for which there may be good reasons to include them.

It should be mentioned here that the analysis in this step was limited to identifying potential policy fields, and to a basic assessment of policy measures. It was not within the scope of the study to extensively discuss how these policy measures should be designed. Furthermore, since the project entails a study on EU *spending*, policies that mainly involve regulation or policy coordination were considered less relevant. For the sake of completeness, the study does pay some attention to these; but the focal point has remained on policy areas that (should) involve the budget. Furthermore, the study resulted in partial analyses, in the sense that tax and regulatory policies are hardly examined.

Step 3

In Step 3 the project developed prospective structures of public spending between the EU and the Member States and assessed these against the same set of criteria. This part of the study is based on a description of various trends (globalisation; demographic trends; political trends – such as integration and enlargement processes; trends in resource scarcity; climate change; etc.) and extrapolates these into the future. As such, the study tries to look into the future based on publications and projections from institutions such as the United Nations, the European Defence Agency, the European Commission, the International Energy Agency, etc. Subsequently, the study examines which challenges these trends will lead to; and whether this different ‘world’ will pose different demands on the EU budget.

⁷ Obviously, these theories do not always result in similar conclusions; this particularly relates to the normative approach (public finance, fiscal federalism) versus the positive approach (public choice, institutional economics).

Result

The project has resulted in an integrated report, where the results from Steps 2 and 3 are combined in a single document with the result from step 1 as an Appendix. The report consists of two parts. The first part assesses the current budget along the lines of the extended subsidiarity test. The second part deals with prospects and challenges, and analyses what changes to the budget are likely to become necessary in the future.

1.2 Methodology

Assessment procedure

The assessment procedure, as explained in detail in Appendix 1, is based on two basic questions in public finance. Firstly, *what are the reasons for government interventions?* These relate to market failures (allocation), redistribution, and stabilisation. Secondly, *what instruments are optimally available?* Both questions form the background of the assessment of the question *who should do what: the EU or national governments?* This last question forms the focal point of this study.

The analysis takes into account both normative and positive criteria. The normative criteria consist of arguments from an economic efficiency perspective. The positive criteria relate to other reasons for (EU) countries to cooperate from a public choice / political economy perspective. Table 1.1 incorporates both types of arguments into an assessment procedure which boils down to an *extended subsidiarity test*. The table should be read as follows: in the second column, we have identified the sequence to be taken in the analysis; the third and fourth columns categorise the reasons for or against centralisation, respectively. The last column provides some explanatory comments.

Table 1.1 Assessment procedure

	Sequence	Reasons for centralisation: <i>the need to act in common</i>	Reasons for decentralisation	Remarks
WHO SHOULD DO WHAT?	1a	Economies of scale Externalities		Normative assessment along the lines of Fiscal Federalism
	1b		Heterogeneity of preferences	
	2a	Limits to system competition Second-best Complementarity between policies Lobbying ⁸		Positive assessment of additional arguments from Political Economics and Public Choice
	2b		Self-interest and Accountability Common pool Lobbying ⁸	
	3	Credibility of co-operation		
	4	Proportionality		

The table represents how positive (politico-economic) arguments can be applied alongside normative ones. Incorporating positive arguments is often necessary, firstly because reality differs in too many cases from an ideal scenario; secondly because the additional arguments may strengthen the case for (de)centralisation and thereby lessen the problem of arbitrariness in judgements. Arbitrariness in judgements may become a problem when positive and normative arguments are contradictory, and there is no clear case for (de)centralisation. While assessing subsidiarity, however, the normative line of reasoning should prevail, since it provides the *most robust benchmark* against which to evaluate. For this reason, the procedure, as presented in the table above, first applies the normative subsidiarity test; and is followed by an assessment of the additional politico-economic arguments.

The issue of credibility of cooperation (number 3 in the table) can be seen as cut-off point: when the need to act in common has been established, centralisation is not required when voluntary cooperation among Member States is credible. Although this step is essential to assessing subsidiarity in Europe, it is only dealt with to a limited extent in the study below; the delineation of the scope of the research was the main reason for this. Finally, proportionality is a logical follow-up to the subsidiarity test; addressing what ought to be centralised or not because of *benefits*, by asking how the *costs* of centralisation can be minimised. Thus, the question here is not what problem to address

⁸ Lobbying specifically refers to actions by *private* parties to influence policy-makers. It is mentioned twice, since both central and local politicians are subject to lobbying. In some cases, lobbying is more successful at central level; in other cases it may be that local politicians are more susceptible to lobbying.

or at what level, but *how* to address it (regulation and/or spending at EU level). Proportionality can be seen as a social cost benefit analysis that examines *what policy measure to use*. In most cases this boils down to the question of regulation versus spending.

Policy areas

The classic functions of the government⁹ are threefold: stabilisation, distribution, and allocation. Stabilisation refers to macroeconomic stabilisation – in relation to high employment, price stability, the soundness of foreign accounts, and an acceptable rate of economic growth. Distribution is rather straightforward and involves, in addition to choosing optimal instruments, political choices on issues of interpersonal and inter-regional equity issues. The allocation function refers to government intervention in the presence of a (combination of) market failure(s). The classic four forms of market failures that provide a reason for government intervention are pure public goods,¹⁰ externalities, market power (arising from returns to scale) and information problems. Another well known argument is paternalism together with (de)merit goods. From the perspective of the EU budget, it seems that equalisation and allocation play a more important role than stabilisation.

Table 1.2 presents the policy areas that are analysed in the study. The use of 14 policy domains, as well as their classification into the three government functions, is only meant to structure the analysis and discussion. Notably the classification of stabilisation, equity and allocation is ambiguous because many policy fields may address multiple functions.

Table 1.2 Policy areas

Function	Budget activities in the policy areas	Chapter in this report
Stabilisation	Macroeconomic stabilisation	2
Equity	Employment and Social Affairs	3
	Cohesion Policy	4
Allocation	Competitiveness and Single Market policies	5
	Research and Development	6
	Education and Culture	7
	Environment	8
	Agriculture and Rural Development	9
	Fisheries and maritime issues	10
	Infrastructure / Network industries	11
	Health and consumer affairs	12
	Freedom, Security and Justice	13
	Defence Policy	14
	Foreign policies	15

⁹ Explained by Musgrave and Musgrave (1989) and applied to the EU policies in Molle (2006).

¹⁰ For clarity, by *pure public good* we mean a good that is characterised by non-rivalry and non-excludability. If a good has only one of these characteristics it may be referred to as a semi-public good. Examples of semi-public goods are so-called "club goods", these are excludable, but not rival (as long as there is no congestion). All other definitions of public goods that circulate do not apply here.

As mentioned, we focus on the main budgetary activities of the EU (and the Member States). We assess the role of the EU and the Member States with respect to the various government functions and policy areas in Table 1.2 regarding the budgetary implications.

1.3 The budget

Commitments 2007

In this section we present an overview of the EU budget (see Table 1.3). We re-structured the budget titles in accordance with the classification in Table 1.2; and corrected the figures for spending by Directorates General that *appear* to deal with other policy fields (see footnotes in the table).

Table 1.3 EU Budget 2007

Function	Chapter	Budget activities in the policy areas	Budget title	Commitments 2007	
				As % of total commitments	In billion €
Stabilisation	2	Macroeconomic	1	0.4	0.5
Equity	3	Social Affairs and Employment	(4) ¹¹	0.7	0.9
	4	Cohesion Policy	13, 4	31.7 ¹²	39.1 ¹³
Allocation	5	Competitiveness and Single Market policies ¹⁴	2, 3, 12, 14, 20	0.6	0.8
	6	Research and Development	8, 10	3.5	4.3
	7	Education and Culture	15	1.0	1.2
	8	Environment	7	6.6	8.2 ¹⁵
	9	Agriculture and Rural Development	5	40.8 ¹⁶	50.4 ¹⁷
	10	Fisheries and Maritime issues	11	0.7	0.9
	11	Network industries (Energy, transport, information society, postal sector)	6, 9	2.6	3.2
	12	Health and Consumer policy	17	0.4	0.5
	13	Freedom, Security and Justice	18	0.7	0.9
	14	Defence	n.a.	n.a.	n.a.
	15	Foreign aid and Neighbourhood policies	19, 21, 22, 23	5.5	6.7 ¹⁸
	n.a.	Other / Administrative	16, 24-31, 40	4.8	5.9
				100	123.6

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html

¹¹ Excluding ESF funds.

¹² 9% for labour and social policies (ESF) and 23% for structural policies (accounting for footnote 13).

¹³ Excluding about € 5 billion for environmental policies – see Chapter 8.

¹⁴ Including Internal Market, Taxation and Customs, External Trade, Competition and Enterprise.

¹⁵ Including about € 5 billion from cohesion and structural funds and € 2 billion from agriculture.

¹⁶ 34% for market interventions and direct aid and 6,8% for rural development (accounting for footnote 17)

¹⁷ Excluding about € 2 billion for environmental policies – see Chapter 8.

¹⁸ Including the amounts spent by other DGs (REGIO, AGRO, ESA, and ECFIN).

It is important to note that the EU budget is limited. It is small in terms of total public expenditure in the EU (EU budget and Member States budgets), only 2.5%; and barely exceeds €125 billion (EU, 2007). Although hardly comparable, because the EU is no federal state, it is instructive to note that in 1998 63% of all government expenditure in the US was conducted by the Federal Government (US GPO, 2000).

2007-2013 Financial Framework

The 2007-2013 Financial Framework foresees a reduction in expenditures on (preservation and the management of) natural resources (mainly the Common Agricultural Policy) to 40% of the budget by 2013. Cohesion Policy will use 36% of the budget. Together with the category of Competitiveness for growth and employment (consisting, *inter alia*, of Research and Development and Education), 46% of the budget will be used for measures to promote (regional) economic growth and employment. The remaining 13% of the budget is pre-allocated to Freedom, Security and Justice, EU citizenship, EU as a global partner and administration; see Table 1.4 below.

Table 1.4 2007-2013 EU Financial Framework (in 2004 prices)

Commitment appropriations	2007	2008	2009	2010	2011	2012	2013
Sustainable growth	51.3	52.9	54.1	54.9	55.4	56.8	58.3
<i>Competitiveness</i>	8.4	9.6	10.2	11.0	11.3	12.1	12.9
<i>Cohesion</i>	42.9	43.3	43.9	43.9	44.1	44.7	45.3
Natural resources	53.5	54.3	53.7	53.0	52.4	51.8	51.2
<i>Agriculture Pillar I</i>	43.1	42.7	42.3	41.9	41.5	41.0	40.6
Freedom, Security and Justice	0.6	0.7	0.8	0.9	1.1	1.2	1.4
Citizenship	0.6	0.6	0.6	0.6	0.6	0.6	0.6
The EU as a global player	6.2	6.5	6.7	7.0	7.3	7.7	8.0
Administration	6.6	6.8	7.0	7.1	7.3	7.4	7.6
Total in billion €	119.2	122.0	123.0	123.5	124.0	125.5	127.0
Total in % of GNI	1.10%	1.08%	1.07%	1.04%	1.03%	1.02%	1.01%

Source: Decision of the European Parliament and of the Council of 18/12/2007: OJ n° L 6 of 10/01/2008, available on <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:006:0007:0008:EN:PDF>

Comparing Table 1.3 and Table 1.4, it directly follows that, in terms of the EU budget, most of the policy areas, such as macroeconomic stabilisation, safety and defence, interpersonal equity, network industries, and health are not very important. Whether this should be changed in the near future or the more distant future is the topic of this study.

1.4 Reading guide

This study consists of two parts. The first part comprises the assessment of the current budget. The second part deals with prospects and challenges; and analyses what changes to the budget are likely to become necessary in the future.

Part I: The assessment of the current budget

Each chapter in Part I is devoted to a single policy area, as described in Table 1.2 and Table 1.3 above. Each chapter starts with a description of the budget for that policy field.

The budget activities are presented up to a two-digit level and, where relevant, it is further specified to the three-digit level. The relative (budgetary) importance of each activity within the policy field is presented in terms of its size as a percentage of the budget devoted to that entire policy field.

In some cases, the budget and the policy framework (with a description of goals objectives, targets and policy measures) are discussed integrally. In other cases, when a more explicit discussion of the policy framework is required, the discussion of the budget follows the presentation of the policy framework.

Subsequently, each chapter proceeds with a structured analysis of the main activities along the lines of the assessment procedure. Firstly, an analysis is made from a normative perspective, followed by an analysis from a positive perspective.

Each chapter concludes with a table summarising the arguments. These tables conclude with the need for budgetary involvement by the European Union. To gain a clear overview, these conclusions are briefly summarised in the final chapter of Part I.

Part II: Trends and future challenges

This part of the study starts with a description of various trends and political ambitions and extrapolates these into the future. Based on these developments, the analysis describes what new policy challenges this may lead to and/or what the impact of the prospects could be on various determinants within the assessment procedure.

Subsequently, it is analysed if the conclusions from the assessment of the current budget would change as a result of these prospects and challenges. In some cases, these changes follow automatically from the reassessment; in other cases, it is necessary to spell out the policy options that result from the challenges – while still leaving the choice among options to (future) politicians. We discuss these policy options in the form of three policy packages. Each policy package emphasises a policy area for which we have good reasons to assume that EU involvement has to be intensified. We deliberately label the budget reforms in these policy areas as ‘packages’ and not scenarios. In most scenario studies alternative futures are sketched which are mutually exclusive. This is not the case here. We present packages that cover only a part of the EU budget. It could be decided to reform the EU budget in all three directions or only in one. The choice for one or more of these possibilities, and the way in which these are financed, is primarily a political one. We do not deal with this choice here. We provide the economic arguments to reform the EU budget in three different directions based upon our assessment methodology and the trends identified. It is up to politicians and society whether they want to take these arguments on board in designing the EU budget for the future. The budgetary reform packages are labelled: *Climate change and energy resources*, *Knowledge and innovation*, *Common security and foreign affairs*.

Part I: Assessment of the Current Budget

For each policy area, this part of the study evaluates the current budgetary activities along the lines of the assessment procedure as developed in Appendix 1. Furthermore, it is ascertained whether there are activities that are currently not in the budget, but for which there may be good arguments to include them.

2 Macroeconomic stabilisation

2.1 Policy and budget

2.1.1 Stabilisation policy defined

Stabilisation policies refer to policies designed to stabilise aggregate income and spending (i.e. GDP), as well as to stabilise unemployment levels.¹⁹ Stabilisation may serve to cushion the effects of (exogenous) economic shocks and/or it may have an anti-cyclical character. Across the board, two types of policy measures are available for macroeconomic stabilisation: monetary and fiscal policies.

Fiscal policy can be broken down into policies related to taxation and to expenditure; notably the deficit (difference between tax income and public expenditure) and its financing are relevant for stabilisation purposes. The degrees of freedom while using public spending for stabilisation purposes are limited. This is because at one and the same time there is a strong link between public expenditure as a tool for stabilisation and as a tool to serve allocation and redistribution related objectives. Also, much of current spending is contract-based (e.g. wages and salaries) and cannot be varied at one's discretion. Taxes, on the other hand, are often GDP-related as they are levied as a percentage of income or spending. As such, they function as an 'automatic stabiliser' (in relation to anti-cyclical stabilisation). Certain specific forms of public spending (for example unemployment benefits) also function as an automatic stabiliser. Most important, however, is that the aggregate level of public spending should be consistent with the overall macroeconomic framework.²⁰

Macroeconomic shocks are typically stabilised via monetary instruments. These are in the hands of central banks. Monetary policy works through changes in the conditions for short-term (re-)financing (hence short-term interest rates) which affects the economy in general (prices, production, unemployment and income). This should make it clear that monetary and fiscal policies interact strongly via the interest rate and price levels (including the exchange rate).²¹ As an overall objective, monetary policy is often aimed at stabilising inflation rates. Sometimes unemployment rates are a specific objective for

¹⁹ It may also include stabilisation of prices (including interest rates and/or exchange rates). However, ultimately stabilisation of prices also serves to stabilise *real* income; if not for society as a whole, it certainly does so for specific groups.

²⁰ If this is not, high or rising budget deficits (depending upon how they are financed) will result in various forms of macroeconomic imbalances. For instance, excessive budgets can give rise to inflation, crowd out private investments, or (if interest rates are fixed) they can give rise to trade deficits.

²¹ Given the demand for money (which is a derivative of economic activities and money velocity) and given the price level, changing the supply of money will alter the interest rate. This affects decisions on savings, consumption, investments; this affects aggregate demand and production levels, which ultimately affects prices and levels of production, employment and income.

monetary policy. In other cases, monetary policy aims to stabilise (or fix) exchange rates. The essential distinction between various types of monetary policy lies primarily with the set of instruments and target variables that are used by the monetary authority to achieve their goals. Table 2.1 gives a brief overview of different monetary policies, their respective target variables, and the long-term objectives.

Table 2.1 Monetary policies

Policy:	Target variable:	Long-term objective:
Inflation Targeting	Interest rate	Stable inflation rate
Monetary Aggregates	Money growth	Stable inflation rate
Fixed Exchange Rate	Exchange rate	Fixed Exchange Rate
Mixed Policy	Multiple: - money growth - inflation rate - interest rate - exchange rates	Usually unemployment and inflation rate

Source: Burda and Wyplosz (2005).

Another specific task of the Central Bank in light of stabilisation policy is to act as *lender of last resort*. This means that the Central Bank should, perhaps, provide failing (private) banks with a sufficient monetary base to avoid immediate bankruptcy and reassure depositors that they can always exchange bank deposits for currency. This function has to be exercised with great care to avoid moral hazard, which would encourage financial institutions to incur excessive risks expecting to be bailed-out by the Central Bank. Reassurance and protection of legitimate interests of market participants can also be achieved by regulation and clear rules fostering systemic stability of financial markets and institutions. Expectations can also be managed by announcing monetary targets, which reduces the need for discretionary interventions. Under a rules-based monetary policy, discretionary measures could even become a source of financial and economic instability.

Views on stabilisation policies through time

From the Great Depression and Keynes's *General Theory of Employment, Interest and Money* until the late 1960s, there was a broad consensus among most economists about the necessity and desirability of an active use of the policies to combat exogenous shocks and smooth the business cycle by counter-cyclical policies. However, this consensus eroded and eventually disappeared during the late 1970s and the 1980s. Reasons were: the breakdown of the Phillips Curve²² and the recognition of its unstable nature; the simultaneous occurrence of stagnation and inflation ("stagflation") in the aftermath of the first and the second oil price shock, and the resulting dilemma for macroeconomic policy-makers, changed political preferences and an increasingly sceptical attitude of macroeconomists towards policy activism based on new theoretical and empirical

²² The Phillips curve is an inverse relation between the unemployment rate and the inflation rate. In short: low unemployment rates drive up wage levels, which has an upward effect on the inflation rate.

insights.²³ These events have led to a considerably more cautious position of both economists and practical policy-makers regarding the chances and possibilities of macroeconomic policies. Some economists even go so far as to abandon the traditional view of fiscal policy as being directed towards allocation, distribution and stabilisation goals; instead, subsuming the stabilisation task under the allocation branch of the budget. As such, the stabilisation function would move away from discretionary actions and would rely solely on automatic stabilisers.²⁴ Monetary policy, on the other hand, is seen by many (especially Monetarist and New Classical macroeconomists) as having an effect on the price level and the rate of inflation only and not on the real sector of the economy (viz. employment and output). Even among New Keynesian macroeconomists, the role of stabilisation policy is seen as being much more limited today than it was during the decades after World War II.

2.1.2 Stabilisation policy in the EU

By establishing the European Monetary Union (EMU) with a single currency for its members, several European countries have chosen to centralise the tools of monetary policy. Other Member States (notably the UK, Sweden, Denmark and most of the new Member States) have not (yet) joined the EMU. In the euro zone, monetary policy is effectively executed by the European Central Bank (ECB). Although the ECB has adopted two pillars as target indicator ('money growth' and 'other'),²⁵ it is implicitly an inflation targeter due to its strong commitment to a 0-2% inflation rate.

Concerning fiscal policy, all Member States have chosen to remain in control of these instruments (taxes and public expenditures) themselves. The main motive for this is that Member States do not want to forego autonomy as to their own allocation and redistribution decisions.

Nevertheless, to render centralised monetary policy effective, there is a great need for coherence of the budgetary (i.e. fiscal) policies of Member States. In particular, the financing of large public deficits could impinge on monetary policy. Moreover, regional asymmetries in the deficits of Member States could entail internal crowding-out and moral hazard at the expense of common interests. Consequently, fiscal autonomy has been restricted at the *level of budgetary deficits* along with centralisation of monetary policy (effectuated through the Stability and Growth Pact or SGP). The SGP is not a self-enforcing mechanism, however. After all, the costs of running a large budget deficit (meaning either inflation or higher interest rates) are shared with other Member States, which creates opportunities to pursue beggar-thy-neighbour policies. Therefore a surveillance system has been put in place, along with disciplinary measures: the 'excessive deficit procedures' focussing on prevention and deterrence.

²³ Such as the possibility of forward-looking expectations and their impact on policy effectiveness, the importance of lags and uncertainty in the effects of macroeconomic policies, non-Keynesian effects of fiscal policies, the possibility of time-inconsistency of optimally-planned policies and the resulting demand for fully credible policy-making, the possibility of election-driven or partisan political business cycles and of a populist asymmetric design of stabilisation policies, among others.

²⁴ Notably in the form of GNI-based revenues and certain forms of expenditures that would follow counter-cyclical trends such as, unemployment benefits, for example.

²⁵ 'Other' being: inflation, output gap, the exchange rate, etc.

Lately, the SGP has come under scrutiny as it is often regarded as being too rigid; and an obstacle constraining growth. Critics argue, for example, that restrictions to running a deficit (i.e. to borrow) limit the ability for public investments (e.g. in infrastructure). This concern underlies the UK government's "golden rule": borrowing should only be undertaken to fund capital investment (see Blanchard and Giavazzi, 2003). Although this argument makes sense, and seems to have had a positive effect on UK growth (see Creel et al, 2007); such a rule is open to abuse through inappropriate classification of public expenditures in order to get around the constraint on borrowing (see Fitz Gerald et al, 2004). Another problem with the golden rule is that public investment is usually defined without taking account of depreciation and privatisation.

A common monetary policy is typically responsive to the average economic situation in a common monetary area. Asymmetric shocks, however, can best be addressed via fiscal policies. Because the EU budget is levied on a GNI basis, it could theoretically act as automatic stabiliser in the case of asymmetric shocks.²⁶ However, this budget mechanism cannot work in the EU; notably because of the limited size of the budget.

The integration of markets helps to relieve a shock by spreading out its effects. So market integration acts as an automatic stabiliser. Spreading out the effects of asymmetric shocks could also be addressed by discretionary redistributive measures (e.g. via the structural funds). However, in practice, not only would the reaction time of such institutional arrangements be too long; discretionary policies would also counter long-term objectives, such as infrastructure development (in the case of structural funds). Market integration appears to be more effective in this instance. Alternatively, the cohesion in shock absorption could be envisaged via a collective European unemployment fund that insures Member States or regions against the costs of massive lay-offs resulting from asymmetric shocks (see for example CPB/SCP, 2003). To a certain extent, the current European Globalisation Fund (EGF) implements such an idea, although it is specifically targeted to help trade-displaced workers by offering support to active labour market policies. Chapter 3 elaborates further on this. Attempts to provide stabilisation through intergovernmental transfers (even if they come in the form of transfers towards individuals in the regions or countries) create incentive problems for local policies, such as moral hazard (e.g. Persson and Tabellini, 1996).

During the summer of 2007, the ECB (and national central banks) acted as lender of last resort when the financial system threatened to destabilise due to the American mortgage crisis. In practice, the European budget also acts a kind of lender of last resort, not for banks, but for Member States (who are not part of the EMU). This is done via the European Community Guarantee for Community loans raised for balance-of-payments support to prevent the occurrence of an acute balance of payments crisis. The objective is to support convergence efforts of the Member State in question.

²⁶ When a country is hit by an exogenous asymmetric shock, its GNI will decline, as well as its contributions to the EU budget (which would be GNI based). The revenues the country receives out of the budget remain constant as these are not GNI-based, but 'needs'-based (i.e. based on allocation and equity arguments).

2.1.3 The budget for Economic and Financial Affairs

The Community budget is not involved in monetary policy. For fiscal stabilisation policies, the budget has some reserves but it is too small to be effective. It should be mentioned, however, that the funds involved with the ‘European Community Guarantees for loans raised for balance-of-payments’ (falling under budget article 01.04.01 in Table 2.2) can be substantial (with a ceiling of € 12 billion – about 10% of the EU budget).²⁷ In addition, a small part of the budget is reserved for funding of interest subsidies on special loans following disasters.

The remainder of the budget for Economic and Financial Affairs (see Table 2.2 below) is used on external relations and allocation problems related to failing financial markets. The funds under budget chapter 01.03 (macroeconomic assistance) aim to ease financial constraints on certain third countries experiencing macroeconomic difficulties characterised by balance of payments deficits and/or serious budgetary imbalances. The expenditures in connection with the competitiveness and innovation programme (CIP) and the European Investment Fund (EIF) typically involve expenditures that facilitate the access to finances for SMEs (see Chapter 5 for a more elaborate analysis).

²⁷ However, since both parts of these borrowing-and-lending operations are carried out on identical terms, they affect the budget only if the guarantee is activated in the case of default. As of 31 December 2005, the outstanding amount under this instrument was zero.

Table 2.2 EU commitments for Economic and Financial Affairs in 2007

Name Chapter/Article	Budget chapter / Articles	Commitments		
		Billion €	As % of	
			Budget chapter / Articles	Total budget
Administrative expenditure of Economic and Financial Affairs policy area	01.01	0.06	11.24	0.04
Economic and Monetary Union	01.02	0.01	2.77	0.01
<i>Coordination and surveillance of Economic and Monetary Union</i>	01.02.02	0.01	1.36	0.01
<i>Prince — Communication on Economic and Monetary Union, including the euro</i>	01.02.04	0.01	1.41	0.01
International Economic and Financial Affairs	01.03	0.06	11.76	0.05
<i>Macroeconomic assistance</i>	01.03.02	0.06	11.76	0.05
Financial operations and instruments	01.04	0.37	74.22	0.30
<i>European Community guarantees for lending operations</i>	01.04.01	0.20	40.43	0.16
<i>Annual funding of interest subsidies on special loans to Portugal following the cyclone in Madeira in October 1993</i>	01.04.03	0.00	0.01	0.00
<i>Competitiveness and Innovation Framework Programme — Entrepreneurship and Innovation Programme</i>	01.04.04	0.14	28.72	0.11
<i>European Investment Fund</i>	01.04.09	0.03	5.05	0.02
		0.49	100	0.40

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html.

For sake of completeness, mention should be made of the € 500 million involved with the EGF and the € 45 billion that are involved with inter-regional redistribution (in relation to cohesion policies). Although they may serve a stabilisation purpose, in practice, they primarily seek to address equity and allocation issues and are (from an institutional perspective) less suitable for absorbing shocks. Consequently, they are not discussed extensively here – see Chapters 3 and 4.

2.2 Assessment

Although the current budget is not involved in fiscal stabilisation policies in practical terms, there are some disputes as to whether it should be. This will be discussed below.

2.2.1 Normative arguments

As the Common Market evolves, scale economies in monetary policy become more apparent, at least according to the theory of Optimal Currency Areas (OCA). These scale

economies result in (progressively) higher *monetary efficiency gains* as economic integration progresses (Krugman and Obstfeld, 2003). Counteracting these gains are certain costs in the form of *economic stability losses*, which arise as a result of giving up the ability to use the exchange rate and monetary policy for the stabilisation purposes. However, these costs decrease with the level of economic integration, which lessens the need for stabilisation policies at the national level as a result of increased spillover effects that cushion the effects of an asymmetric shock.²⁸

Furthermore, Von Hagen and Pisani-Ferry (2002) point out that these same spillover effects also lessen a state's ability to use fiscal measures for stabilisation purposes; they state that: "inter-state trade and financial flows cause the additional demand created by a fiscal expansion in one state to dissipate quickly to the neighbouring states [...] an individual state would bear the full cost of the expansion but reap only a small part of the benefits." Hence, Member States can be regarded as being less able to execute fiscal stabilisation policies effectively as the Common Market evolves.

However, the heterogeneity in allocation and redistribution preferences means that Member States have opted to remain in control of the fiscal instruments, despite stabilisation spillovers. In practice, this results in a prisoners' dilemma: none of the Member States would counter economic shocks with fiscal tools, even if together all states would find it desirable; irrespective of whether it concerns an asymmetric or symmetric shock (see Von Hagen and Pisani-Ferry, 2002). Even in the case of an asymmetric shock, where stabilising the regional shocks requires the use of regionally-differentiated fiscal instruments, the spillover problem remains, and implies that regional governments do not deliver sufficient stabilisation if they pursue such policies independently.

The discussion above pinpoints the complementarity between EMU and fiscal policies, between EMU and internal market policies, and between fiscal policies and internal market policies. These complementarities on the one hand, and the heterogeneity of stabilisation and equity needs/preferences on the other, make the EU system rather complex. The SGP seems a feasible solution to address the desire for heterogeneity in allocation and equity; while accounting for complementarities between monetary and fiscal policies (and to prevent beggar-thy-neighbour policies). The SGP leaves Member States in control of the level and allocation of public spending but ties their hands in running up deficits. However, bigger differences in fiscal policies (notably in the revenue sphere) could limit the integration of markets; whereas the Common Market is a key objective of the EU. Yet, this does not necessarily call for the centralisation of taxation policies; since coordination may do the job, while preserving heterogeneity – see also section 5.2.2.

²⁸ The theory on optimal currency areas provides a clear analytical framework; however, the empirical evidence on OCAs is mixed (Alesina et al, 2002) and views differ on whether or not the EMU forms an OCA. The crux of the matter is whether the Member States are sufficiently economically integrated. With respect to goods and capital markets in Europe, this is probably the case. However, for the service industry and labour mobility this is less so. The empirical literature is mildly positive on the EMU as a currency area but it is considered far from optimal, Krugman and Obstfeld (2003) and Bordo (2003) state that cultural differences in particular, constitute an obstacle hampering market integration and thus an optimal currency area.

2.2.2 Public choice arguments

Kydland and Prescott (1977) and Rogoff (1985) state that a Pareto-improvement is possible if the government can tie its hands to prevent it from meddling with the economy. The less secure a nation or political freedoms are, and the more unstable its politics; the more likely it is that some party or party leader will find it advantageous to print, or externally borrow money to win public support. Therefore, Kydland and Prescott (1977) argue in favour of rules rather than discretion. From this perspective, the creation of an independent central bank is substantiated,²⁹ but it could very well serve as argument for the SGP, as well.

From a public choice perspective, a major concern is that governments tend to grow excessively, as most governments did from the 60s to the mid-80s. Mueller (2003) reviews two approaches. The first approach essentially views the government as carrying out the will of the voters, whose demand for public production increases with the level of wealth. Demand from voters consists of three categories: firstly, the demand for the provision of public goods and the elimination of externalities (where public production may suffer from the Baumol effect);³⁰ secondly, the demand for the redistribution of income and wealth; and thirdly, the demand for spending by interest groups. Each category is a possible driving force behind government growth. The other approach is related to failing bureaucracies. Three theories are relevant here: firstly, Niskanen's theory on 'Bureaucracy and Representative Government' (Niskanen, 1971);³¹ secondly, the theory of fiscal illusion – after Puviani (1903), Oates (1988) and Niskanen (2004);³² and thirdly, tax elasticity and Leviathan governments. Mueller (2003) finds a bit of truth in both approaches. Holsey and Borcharding (1997) find similar results.

Government growth can best be constrained by decentralising decisions on public spending, and thus taxation (for the sake of fiscal equivalence – see Olson, 1969), for several reasons. Firstly, rent seeking by interest groups is more difficult. Secondly, and related to the first, fiscal illusion might be not created as easily, since the spending and taxation in each EU member country is somewhat closer to the voter-tax-payer than on a centralised European Union level (compare Mueller, 2003, and Niskanen, 2004). Thirdly, competition between bureaucracies limits governments' taxation power and thus their growth (see Marlow, 1988). Given the complementarities between the allocation and equity function of the budget on the one hand, and the stabilisation function on the other, these arguments speak in favour of decentralising fiscal policies along with the stabilisation function of the budget.

²⁹ Compare Cukierman (1992), Cukierman and Webb (1995), De Haan and Van't Hag (1995).

³⁰ Baumol's cost disease is often used to describe the lack of growth in productivity in public services. Baumol originally made his point by using an analogy with the performance of classical music: the same number of musicians is needed to play a Beethoven string quartet today as were needed in the 1800s.

³¹ Describing bureaus as "non-profit organisations, financed primarily by an appropriation or grant from a sponsor, in which no individual can legally appropriate any part of the difference between revenue and cost as direct personal income" (Niskanen, 1971, p.15).

³² Fiscal illusion suggests that when government revenues are unobserved or not fully observed by taxpayers, then the cost of government is perceived to be lower than it actually is. Since some or all taxpayers benefit from government expenditures from these unobserved or hidden revenues, the public's demand for government expenditures increases, thus providing politicians with an incentive to expand the size of government.

A centralised monetary policy creates common pool problems that result in beggar-thy-neighbour practices (via the interest rate). The SGP attempts to minimise this effect by tying the hands of politicians. Alternatively, a centralised fiscal stabilisation regime in combination with decentralised allocation and equity policies may also create common-pool problems and moral hazard problems.

2.3 Conclusion

Economies of scale in monetary policy become more important and costs of the loss of the national policy instrument become less important as the Common Market evolves. Hence, from a normative point of view, monetary policy should remain at the level of the Union. However, this does not have budgetary implications.

For fiscal policy, the case is less clear. With fiscal policies there seems to be a trade-off between its complementarities with monetary policy on the one hand (that would plead for centralisation) and complementarities with allocation and equity policies on the other (that would suggest decentralisation). Furthermore, there are complementarities with internal market developments that, on the one hand, diminish the need for central fiscal stabilisation interventions (since asymmetric shocks are more easily spread out); on the other hand, it leads to diminished incentives for lower-level governments to pursue fiscal stabilisation policies (as its effects will more easily drain towards other Member States). In short, there are clear spillovers but there is heterogeneity as well. In the end, however, the EU budget is far too small to successively implement fiscal stabilisation policies; it would have to grow enormously to be able to implement successful fiscal policies.

Public choice arguments on excessive government growth strengthen the case for the decentralisation of fiscal policies; as long as common pool problems are curbed with a proper instrument (e.g. the SGP, but there are likely other alternatives).³³ Firstly, rent-seeking from interest groups is more difficult. Secondly, and related to the first point, fiscal illusion is less easy due to the proximity of voters and taxpayers. And thirdly, competition between bureaucracies limits governments' taxation power, and thus their growth.

³³ The SGP is not necessarily the best instrument as it may tie politicians' hands too much. Alternative schemes can be thought of [for example, an SGP used in conjunction with tradable deficit permits – see, for example, Casella (2001) and Collignon (2004)]; for the application of a (modified) 'golden rule' (see Creel, 2003). We do not discuss these alternatives any further because they do not affect the EU budget.

Table 2.3 Conclusions on stabilisation policies

	Monetary	Fiscal
<i>Does the following apply:</i>		
Normative test		
Economies of scale	Yes	No
Externalities	Yes	Yes
Diversity	Varies ³⁴	Yes
Pro-centralisation		
Limits to system competition	-	No
Second-best	-	-
Complementarity between policies	Yes	Yes
Lobbying	-	-
Pro-decentralisation		
Self-interest and accountability	No	Yes
Common pool	Yes	Yes
Lobbying	-	Yes
Credibility of co-operation	No	No
Proportionality	No ³⁵	No
Conclusion role for EU budget	No	No

All in all, there seems to be no need for the EU budget to be involved in stabilisation policies. In the end, this may also be a non-issue, as the EU budget is currently far too small to be able to have a significant impact.³⁶

³⁴ This depends on the level of economic integration and the reliance on OCA theory (by both economists and politicians)

³⁵ 'No', in the sense that monetary policy does not require the involvement of the budget.

³⁶ In the next chapter, it is shown that there are also no economic arguments supporting smaller scale fiscal stabilisation funds.

3 Employment and Social Affairs

3.1 Introduction

Equity issues are subject of two policy domains: (i) Employment and Social Affairs (this chapter) and (ii) Cohesion Policy (see Chapter 4, as the latter is a form of income redistribution between Member States).

In Social Affairs, interpersonal income redistribution is a prominent topic. It covers issues such as welfare, pensions, family and child allowances, sickness and disability funds, support for housing, and help in cases of social exclusion. Employment policies are also considered in this chapter because they are often institutionally linked to social policy. On average, Member States spend 27% of GDP on interpersonal income redistribution. Together with Health and Education, income redistribution comprises the largest share of government budgets in Europe. The EU budget on Employment and Social Affairs is much smaller. An elaborate discussion of social policies in Europe, both by the Member States, as well at the central level will be discussed in Section 3.2. Section 3.3 analyses the rationale for the important role of Member States in income redistribution, and the limited role of the EU. We discuss the arguments for and against centralisation: scale effects, externalities, heterogeneity, and public choice arguments. The last section summarises conclusions on the current EU budget and looks ahead towards possible future developments and what these may imply for the conclusions on the current budget.

3.2 Social policies in Europe

3.2.1 Social models in the Member States

Typology

Welfare states in Europe have different characteristics and can be classified into different groups. The most influential effort in the literature regarding welfare state classification is without doubt the typology of Esping-Andersen (1990). Using a number of indicators, Esping-Andersen (1990) succeeded in empirically identifying three types of regimes: the Liberal, Social Democratic and Conservative (or Corporatist) models. Later, this classification was extended with a fourth model: Mediterranean. Combining the work of several authors, who elaborated on this typology,³⁷ produces a rather consistent classification of European welfare states – see Table 3.1. The table depicts, however, not a general fact, as welfare states are evolving over time; the overview below mostly

³⁷ Notably Bonoli (1997), Castles and Mitchell (1993), Esping-Andersen (1990), Ferrera (1996), Gaard (2005), Korpi and Palme (1998), Leibfried (1992), and Siaroff (1994).

reflects a snapshot of the 1990s. Nevertheless, it is exemplary of the variety in welfare state models that are common in Europe.

Table 3.1 shows that the role of the family, state and market differs widely within the four categories of welfare states. This is also the case for the dominant mode and locus of solidarity, and the preferred degree of decommodification.³⁸ Sapir (2005) concludes that the Liberal model is economically efficient with high inequality; the Social Democratic model is efficient with less inequality; the Conservative model is not efficient with less inequality, and the Mediterranean model is not efficient and displays high inequality.

Table 3.1 A four-world classification of welfare states models

	Liberal	Social Democratic	Conservative	Mediterranean
Role of:				
Family	Marginal	Marginal	Central	Central
Market	Central	Marginal	Marginal	Marginal
State	Marginal	Central	Subsidiary	Marginal
Welfare state				
Dominant mode of solidarity	Individual	Universal	Kinship Corporatism Statism	Kinship
Dominant locus of solidarity	Market	State	Family	Family
Degree of decommodification	Minimal	Maximum	High (for breadwinner)	High
Modal examples	USA	Sweden	Germany	Italy
Other examples	UK Ireland	Denmark Netherlands (50%) Belgium (50%) Finland	Netherlands (50%) Belgium (50%) Austria Luxembourg France (50%)	Spain Greece France (50%) Portugal

Source: ECORYS, based on Bonoli (1997), Castles and Mitchell (1993), Esping-Andersen (1990), Ferrera (1996), Gaard (2005), Korpi and Palme (1998), Leibfried (1992), and Siaroff (1994).

Heterogeneity in labour market policies (LMP) is also reflected in the “European Economy Special Report No. 2” (European Commission, 2005a). This publication uses a similar classification as in Table 3.1 for classifying labour market policy regimes in Europe. The countries are classified based on differences/similarities in four areas: replacement rate, availability for work requirements, degree of activity in labour market policy, and employment protection. The findings are summarised in Table 3.2. The

³⁸ Decommodification refers to activities and efforts (generally by the Government) that reduce citizens' reliance on the market (and their labour) for their well-being. In general, unemployment, sickness insurance and pensions are used to measure decommodification for comparisons of the welfare state (see Esping-Andersen 1990).

grouping of countries in the above table shows a remarkable resemblance with the grouping of countries as presented by Table 3.1 (except for Finland).

Table 3.2 Characteristics of labour market policies in regimes

EC (2005a) classification	Liberal Anglo-Saxon	Social democratic North European	Conservative Central European	Mediterranean South European
Replacement rate	Low	High	Varying	Average
Availability for work requirements	Few formal demands	Strict availability for work requirements	Varying	Strict availability for work requirements
Degree of activity LMP	Varying	Active	Passive	Passive
Employment protection	Limited	Low to average	Average to high	High
Countries	Ireland, UK	Denmark, Netherlands, Sweden	Austria, Belgium, Finland, Germany	France, Italy, Spain, Portugal, Greece

Source: "European Economy. Special Report Number 2" (European Commission, 2005a).

National budgets

Bertola et al. (2001) conclude that social assistance schemes in EU countries are also heterogeneous in the way they are organised (e.g. eligibility, benefits in cash or 'tied' to specific goods or services). Differences are partly reflected in national government budgets. These national budgets differ substantially, as is shown in Table 3.3.

Table 3.3 Social protection expenditures in 2003 (as a percentage of GDP)

Country	Total	Old age	Health	Disability	Family	Unempl.	Exclusion
EU-25	27.4	11.3	7.7	2.2	2.2	1.8	2.2
EU-15	27.7	11.4	7.8	2.2	2.2	1.9	2.2
Belgium	29.1	9.9	7.9	2.0	2.2	3.6	3.5
Czech Republic	20.2	8.1	7.2	1.6	1.5	0.8	0.9
Denmark	30.7	11.4	6.3	4.1	4.1	3.0	1.7
Germany	30.2	12.5	8.4	2.3	3.2	2.6	1.2
Estonia	12.9	5.7	4.1	1.2	1.3	0.2	0.4
Ireland	16.5	3.0	6.9	0.8	2.6	1.4	1.8
Greece	26.0	12.3	6.9	1.3	1.9	1.5	2.1
Spain	19.9	8.2	6.0	1.5	0.7	2.6	0.9
France	30.9	11.4	9.2	1.8	2.6	2.4	3.4
Italy	25.8	13.4	6.5	1.6	1.1	0.5	2.7
Cyprus	18.5	8.3	4.8	0.7	2.0	0.9	1.8
Latvia	13.4	6.6	3.1	1.3	1.4	0.4	0.5
Lithuania	13.6	6.2	4.1	1.3	1.1	0.2	0.7
Luxembourg	22.2	5.8	5.5	3.0	3.9	0.9	3.1
Hungary	21.1	7.6	6.3	2.2	2.7	0.6	1.8
Malta	17.9	9.0	4.6	1.2	1.0	1.2	0.9
Netherlands	28.3	10.0	8.8	3.1	1.4	1.8	3.3

Country	Total	Old age	Health	Disability	Family	Unempl.	Exclusion
Austria	29.5	13.8	7.3	2.5	3.2	1.7	0.9
Poland	20.9	11.2	4.2	2.6	0.9	0.8	1.2
Portugal	24.2	9.5	7.0	2.8	1.6	1.3	2.0
Slovenia	24.6	10.7	8.0	2.0	2.1	0.8	1.1
Slovakia	18.2	7.0	6.0	1.6	1.5	1.1	1.1
Finland	26.5	8.8	6.7	3.5	3.0	2.6	1.9
Sweden	33.3	12.7	8.7	4.7	3.2	2.0	2.1
UK	26.4	10.9	7.9	2.5	1.8	0.7	2.6

Source: Eurostat.

Bertola et al. (2001) comment, however, that these differences may be interpreted in the light of differences in the design and implementation of social transfers, in the age structure of the population, and the incidence of non-employment across different population groups. Furthermore, regarding reducing overall inequality, Bertola et al. (2001) argue that EU countries are heterogeneous also with respect to patterns of household formation. This may have a very different impact on household income inequality in the various Member States. EU countries also differ with regard to improving the position of workers, by protecting them from adverse labour market or lifecycle development.³⁹ Finally, Bertola et al. (2001) identify noticeable differences in the funding of social policies across EU countries. Conservative and Mediterranean countries seem to obtain a larger share of their social policies' funding from social contributions than other countries.

In spite of these differences, CPB and SCP (2003) conclude that the spread between countries in terms of social security spending has reduced considerably. The variation coefficient (the standard deviation divided by the average) fell from 27% in 1981 to 19% in 1998 for the EU-15 countries. Although there are still substantial differences in the level of social security spending, heterogeneity has reduced over time. This could lower the costs of harmonisation, but the recent enlargements in 2004 and 2007 have increased the heterogeneity of social security spending once again.

3.2.2 Social policies and the EU budget

The EU budget for Social Affairs and Employment in Europe was about €11.9 billion in 2007, of which € 11.1 billion was allocated to the European Social Fund (ESF). The objectives of the ESF: convergence (€ 7.4 billion) and regional competitiveness and employment (€ 3.4 billion) are comparable to the objectives of other structural and cohesion funds; and are therefore discussed extensively in Chapter 4, which concentrates on cohesion policy. That chapter also presents the measures of the ESF programme. In this chapter we will only summarise other arguments that focus specifically on the ESF.

In addition, € 500 million can be mobilised each year under the European Globalisation Adjustment Fund (EGF), a very recent initiative of the EU. The EGF is a new "flexibility instrument" outside the financial framework, which can be mobilised and entered into the budget in case of need on the basis of a Commission proposal and a decision by the

³⁹ Bertola et al. (2001) refer to wage setting, employment protection, unemployment benefits and active labour market policy.

budgetary authority (the European Parliament and the Council). The budget chapter on employment, social solidarity and gender equality uses resources for employment, social protection and inclusion, working conditions, anti-discrimination and diversity, and gender equality. The budget chapter on working in Europe is used for the social dialogue with and between employers and employee organisations, European employment services and mobility in Europe, including free movement of workers, coordination of social security systems and measures for migrants – including migrants from third countries.

Table 3.4 EU commitments for Employment and Social Affairs in 2007

Name Budget chapter	Budget chapter	Commitments		
		Billion €	As % of	
			Budget chapter	Total budget
Administrative expenditures	04.01	0.10	0.81	0.08
Working in Europe: social dialogue and mobility	04.03	0.07	0.57	0.06
Employment, social solidarity and gender equality	04.04	0.12	1.01	0.10
Global Adjustment Fund (EGF)	0.4.05	0.50	4.19	0.40
Instrument for pre-accession	04.06	0.06	0.54	0.05
Total	04 (min 02)	0.85	7.13	0.69
European Social Fund	04.02	11.07	92.87	8.93
Employment and Social Affairs	04	11.93	100	9.6

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html.

ESF

The European Social Fund has two objectives: convergence, and regional competitiveness and employment. The goals of both objectives are to prevent and combat unemployment, develop human resources, foster social integration in the labour market, promote a high level of employment, as well as to promote equal opportunities for men and women. Although the objectives are the same as for the European Regional Development fund (ERDF), the goals of the ERDF are targeted at economic development; and those of the ESF at employment. The funds for the convergence objective are aimed mainly at poor regions in poorer Member States; whereas the competitiveness and employment objective targets at regions other than those which are the most disadvantaged.

Other social and employment policies

Budget chapters such as ‘Working in Europe’ and ‘Employment, social solidarity and gender equality’ aim to foster a social dialogue, promote mobility and supporting the adoption of certain minimum standards. Concerning the latter, the EU has regulated occupational health and safety for workers and the equal treatment between men and women (Pelkmans, 2007). Moreover, the EU has established minimum rules on working time, maternity leave and part-time working, and on workers’ rights.

EGF

The recently adopted European Globalisation Adjustment Fund (EGF) is an EU response to the challenges of globalisation. It is to spend up to € 500 million annually to support active labour market policies in Member States, targeting workers affected by trade-induced (mass) lay-offs.

3.3 Assessment

3.3.1 General assessment of social models

Scale effects

Scale effects occur when the social security system is more effective and efficient when operated at European scale than at national scale. This can be the case, for example, because of lower implementation costs and more risk sharing. With regard to this latter aspect, CPB and SCP (2003) argued that countries could insure themselves at European level against asymmetrical macroeconomic shocks, for example, by means of a European unemployment fund. This is closely related to the fiscal stabilisation issue addressed in Chapter 2. A country that is hit by a negative macroeconomic event would receive money from this fund, which would receive contributions from countries where unemployment was not increasing. In this way, the fund would stabilise shocks occurring in specific EU countries. Insuring against asymmetrical shocks also raises potential problems with its implementation, however; and creates moral hazard, that is, the risk that governments could become less alert to the need to prevent unemployment because the unemployment benefits are paid by someone else (essentially a common pool argument). It is therefore not clear whether the benefits of such an insurance scheme outweigh the disadvantages.

Another scale effect could arise in the implementation of social security. CPB and SCP (2003) investigated whether there were any empirical indications for this by examining whether large Member States achieve more efficient redistribution than small Member States. By inspecting the relationship between social security spending and income inequality in the countries of the European Union in 1999, CPB and SCP (2003) noticed that the four largest countries - Germany, France, UK and Italy - spend a relatively large amount on social security in order to achieve the same degree of equality compared to the EU average. This offers no empirical support for the idea of scale effects in the implementation of social security.

CPB and SCP argue (2003) that the creation of an internal European market for labour could be interpreted as a scale effect. It implies that people are able to respond better to wage differentials and can go to work more easily in the country where they are able to achieve the highest return on their knowledge and skills. Labour mobility within Europe is rather low; the only discernible reasons to migrate in recent years concern the only substantial wage differences between old and new Member States. For highly-skilled workers, mobility is increasing, such as for those working in the financial sectors. For example, the number of French nationals working in London in the financial sectors is estimated to be around 50,000. The reasons for low labour mobility between Member States are language and cultural differences and institutional obstacles. These barriers are both financial (pensions, for example) and information-related. The complexity and

diversity of those regulations tends to prevent people from looking for work outside their own national borders. For potential migrants there are clear benefits of more harmonised social welfare and labour market policies, but for society as a whole, economies of scale in European labour market policy are generally suspected to be absent (Bertola et al., 2001; CPB and SCP, 2003).

External effects

Would policy competition in social security lead to lower income benefits (social-assistance, unemployment, disability, etc.) as a result of cross-border external effects? The theoretical literature stresses this risk (Lejour, 1995; Sinn, 2003). Increased labour mobility and divergences in the level of the welfare state might end up in migration of low-income state dependants to Member States with higher income benefit levels (Bertola et al., 2001) and of high income earners to Member States with low taxes and low income benefit levels (Sinn, 2003).⁴⁰ The welfare state acts as insurance for a country's residents, though individuals gradually know more about their situation than the state. As a result, adverse selection could emerge at the national level, as net contributors of the welfare state will join low-tax countries; whereas net recipients are attracted to countries with a well-established welfare state. If this is the case, individual countries have an incentive to undercut the tax rate of other countries and to reduce the level of their welfare state provisions in order to attract the rich and to deter the benefit-dependents. Based upon this reasoning, Sinn (2003) concludes that [heterogeneous] welfare states are unable to survive when the factors of production are free to move across the borders.

On average, social security spending in the EU rose from 21.5% of GDP in 1980 to 27.4% in 1998 for the EU-15 (CPB and SCP, 2003). This percentage has been falling since the second half of the 1990s, especially in the social-democratic and liberal countries. This is to a large extent related to the decline in unemployment over this period. These figures do not indicate that Member States undercut social spending in order to attract firms and (job seeking) migrants for the 1980 and 1990s. This observation finds broad support in several studies (Bean et al., 1998). Moreover, substantial increases in intra-EU migration have not been observed during that period. For the time being, therefore, cross-border external effects offer no convincing argument for the harmonisation of social policy.

Public choice arguments

From a public choice perspective, welfare programs should be brought down to the lowest governmental level, as Mueller (2002) and Blankart (2000) have convincingly shown. The argument is essentially related to the Tiebout-model of policy competition between jurisdictions. Especially the misuse of welfare programs in order to win elections by selfish politicians at the federal level is convincingly shown in public choice contributions, e.g. by Frey and Schneider (1978a, 1978b, 1979, 1981). Also Winer and Shibata (2002) argue in this direction; and even suggest that one should ask whether these whole systems should not be taken over by independent units, over which a government does not have a direct influence.

⁴⁰ The latter effect will most likely be stronger; as the mobility of high income earners is much higher than the mobility of low-income state dependants.

For family and child allowances, Blankart (2001) and Mueller (2002) convincingly show that these types of services should remain at Member State level, or should be further disaggregated. Also, other services mentioned, such as sickness and disability, housing, and social exclusion, should remain at Member State level or be further disaggregated.

3.3.2 Assessment of EU budget activities

ESF

Reasons for EU budgetary involvement are lack of financial and institutional capacity in poorer Member States (see Section 4.2). These arguments also apply to the convergence objective of the ESF. External effects of national employment policies are not relevant for EU involvement (see also Pelkmans, 2006b). Hence, it makes less sense for the EU to finance these policies in poorer regions of richer Member States, because the argument of lack of financial and institutional capacity does not apply. It must be stated, however, that only a small proportion of the funds allocated for the convergence objective is destined for these regions.

It is different for the funds aiming at regional competitiveness and employment. These are often to the credit of regions in richer Member States (section 4.2.3) that have the financial capacity to finance such investments themselves. This weakens the case for involving the EU budget. On the other hand, section 4.2.3 argues that, given complementarity with internal market policies and the Lisbon strategy, there could be a budgetary role for the EU. With respect to the overall objective of the Lisbon strategy (i.e. increase competitiveness), there is a stronger case to be made (in terms of spillovers) for regional development and less for employment. ESF aimed at the objective regional competitiveness and notably employment does not pass the assessment procedure because spillovers are lacking and reasons for solidarity are absent.

Other social and employment policies

A case can be made for EU involvement on minimum standards, equal treatment and basic employees' rights (such as working time, maternity leave, part-time working and workers' rights) because it internalises possible externalities from national policies. In theory, countries could lower these labour standards in order to become more competitive. This would impose external effects on other countries. Theoretically, this could imply a race to the bottom on labour standards. It is questionable, however, whether this theoretical possibility would also materialise itself in any case. By setting minimum standards, the EU at least introduces a ceiling which limits the size of possible external effects. Regulating and monitoring these rules require outlays, so a limited EU-budget for these policies makes sense. The economies of scale argument is not relevant here, and diversity does not appear to be prominent.

Nevertheless, many activities under the budget chapters 'Working in Europe' (social dialogue and mobility) and 'Employment, social solidarity and gender equality' can be evaluated positively. A social dialogue with employers and employees at the EU level is useful because many EU policies affect these groups. Furthermore, coordination is required for Works Councils in large EU firms with affiliations in various countries. A part of the EU expenditure is related to the free movement of workers in the internal market; the arguments for EU involvement are clearly explained in Chapter 5.

EGF

In principle, this EU effort to help trade-displaced workers makes sense, since trade policy is also decided at EU level. Support can only be provided if changes in world trade patterns results in at least 1,000 job losses in an enterprise over a period of 4 months, or lead to at least 1,000 redundancies at SME level in a sector over a period of 9 months. Passive social protection measures are explicitly excluded from funding (see Wasmer and Weizsäcker, 2007).

The role of the EGF has been debated in the media. This fund supports active labour market policies in Member States targeting workers affected by trade-induced (mass) lay-offs. The benefits of globalisation are not equally distributed, and this fund supports those who are negatively affected by globalisation. Without judging the effectiveness of the programme, the question is whether it is a task of the EU. Most labour market policies are conducted by the Member States. They have more information on regional labour markets and economic activity than the EU has. In principle, they could support displaced workers better. The diversity arguments of our assessment procedure plead for national policies. There are no economies of scale of EU involvement, as there are no substantial external effects of national labour market policies. The normative part of the assessment does not support a European Globalisation Adjustment Fund.

There are, however, other arguments. The EU is responsible for external trade policies (see section 5.2.3). Since these policies could impact negatively on some regions and industries, it makes sense to compensate those who are undoubtedly negatively affected by trade agreements (or globalisation). In theory, Member States could do this. However, for reasons of political economy, it makes sense that a government actor responsible for trade policy complements this policy with policies to compensate for the negative effects of that policy. It is a second-best argument, but probably supports the credibility of the EU. It is not very convincing for many people if the EU pleads for globalisation but is not prepared to compensate those who potentially lose out as a result. As such, the EGF could facilitate agreement among Member States on common welfare-enhancing (trade) policies if the costs and benefits of this policy are not spread evenly across the Member States.

The eligibility criteria have to be strict so as to prevent too many applications of Member States. Wasmer and Weizsäcker (2007) conclude that EGF rules leave too much room for discretionary decisions, exposing it to political posturing and lobbying. These possibilities should be dismissed. Moreover, if Member States are obliged to co-finance the larger part of the active labour market subsidies, the common pool problem and lobbying for EGF funds could be limited.

In conclusion, the arguments for a European Globalisation Adjustment Fund are not overwhelmingly strong. From a normative point of view, there are no arguments to support such a fund. The complementarity of policies and other political economy considerations can support it. If support is strictly limited to those (directly) affected by outcomes of trade negotiations, a case could be made. However, the arguments from Wasmer and Weizsäcker (2007) suggest that it is best to limit the size of the fund and to rely on co-financing by Member States.

3.4 Conclusions

The general consensus in the literature is that Europe is highly heterogeneous when it comes to labour market and social policies. Although this might reflect divergences in opinions about what type of policy will work best, the socio-economic literature gives an extensive insight in preferential differences. Economies of scale are absent and externalities are likely to be modest. In theory, the external effects could be large, but the (current) low mobility of labour mitigates these effects. Moreover, the numbers do not show lower labour standards or a reduction in social spending due to these external effects. From a normative point of view, there are no strong counter-arguments to decentralised policy-making in this field. As a consequence, interpersonal income redistribution is above all a national policy area which requires no substantial EU involvement (see also Hoeller et al., 1996; Bertola et al., 2001; Buti and Nava, 2003).

Even if systems competition does show up, its effects could be limited by EU coordination and minimum requirements. Regarding labour standards, the EU has fulfilled this role to some extent. Respective Member States are primarily the responsible government entities for these policies.

Pensions

At present, old-age pensions are left to Member States, with virtually no involvement from the European Union. National systems are heterogeneous, ranging from universal coverage to pension systems for specialised groups of the labour force. Furthermore, large differences exist with regard to eligibility, replacement rates and redistributive effects. This is not only due to country-specific political preferences (though they do indeed play some role) but also to historical experiences diverging largely across countries. In fact, the different models of the welfare state are related to ideologies associated with political parties. The divergent systems can be interpreted as resulting from such parties' programmes implemented when these parties were in government (or mixtures of programmes enacted by coalition governments). Apart from minimal standards advocated by some politicians, no significant political party or interest group in Europe seems to demand harmonisation of pension systems across the European Union.

It has been pointed out above that normative arguments in favour of centralising social security at the EU level (economies of scale, externalities) are weak; especially as labour mobility is still low across countries, reducing possibly large externalities. Public choice arguments are also in favour of decentralisation. As a consequence, interpersonal income redistribution is above all a national policy area which requires no substantial EU involvement. As mentioned, even if systems competition does show up, its effects could be limited by EU coordination and minimum requirements.

(Un)employment, disability and welfare policies

Europe is highly heterogeneous with regard to labour market and social policies - which is mainly due to preferential differences. Economies of scale are absent, and externalities are likely to be modest in view of the current low mobility of labour. Empirical evidence does not show lower labour standards or a reduction in social spending due to these

external effects. From a normative point of view, there are no strong counter-arguments to decentralised policy-making in this field. As a consequence, employment policy and interpersonal income redistribution are above all national policy areas which require no substantial EU involvement. Even if systems competition were stronger, its effects could be limited by EU coordination and minimum requirements. Regarding labour standards, the EU has fulfilled this role to some extent. Respective Member States are primarily the responsible government entities for these policies.

The current division of employment and social policies between the EU and the Member States is justified according to our assessment above. The budgetary (and also the regulatory) role for the EU is modest in comparison to the agenda of Member State policies in this area. ESF spending for the convergence objective to poorer regions in poorer Member States is justified because these countries do not have the financial and institutional capacity (a scale argument). For the regional employment objective this is not the case because most of the budget is destined for richer Member States. In both cases, there are no external effects of national employment policies.

For the budget activities on labour market policies and the social dialogue, the EU is the right level of intervention. For the EGF, the case for EU involvement is not very strong. In principle, the Member States or regional authorities are best suited to conduct active labour market policies and finance these policies for those negatively affected by globalisation. Because these compensation policies are complementary to external trade policy, limited budgetary intervention by the EU makes sense as long as it is strictly targeted towards the negative effects of globalisation as formulated in the EGF.

Role in terms of the budget

The current division of employment and social policies between the EU and the Member States agrees broadly with normative requirements as seen by economic theory. The budgetary (but also the regulatory) role for the EU is modest in comparison to the size of Member State policies in this area, but is useful.

On pensions, the assessment found no role for the EU budget. Only minor spending at the EU level is at present devoted to employment policy objectives. The current division of responsibilities for employment policy between the EU and the Member States is broadly justified on normative grounds. Justification of the EGF can be found mainly in public choice arguments and is weaker from a normative point of view. ESF spending for the convergence objective to poorer regions in poorer Member States is justified because these countries do not have the financial and institutional capacity (a scale argument). There are, however, no external effects of national employment policies that would justify EU spending in poor regions in rich Member States. For ESF spending for the regional employment objective this is not the case because most of these funds are destined for richer Member States.

For the budget activities on labour market policies and social dialogue (the latter is summarised in Table 3.5 under the heading other EU policies), the EU is the right level of intervention.⁴¹ For the European Globalisation Fund (EGF) the case for EU involvement

⁴¹ This excludes ESF, which is discussed in Chapter 4.

is not very strong. In principle, the Member States or regional authorities are best suited to conduct active labour market policies and finance these policies for those negatively affected by globalisation. Because these compensation policies are complementary to external trade policy, limited budgetary intervention by the EU makes sense, as long as it is strictly targeted towards the negative effects of globalisation as formulated in the EGF.

Table 3.5 Conclusions on labour market policies and social affairs

	Labour market policies (MS)	Social policies (MS)	EGF	ESF obj.: convergence/reg. employment	Other EU policies ¹
<i>Does the following apply:</i>					
Normative test					
Economies of scale	No	No	No	Yes/No	Yes
Externalities	No	No	No	No	Yes
Diversity	Yes, large	Yes, large	Yes	Yes	Limited
Pro-centralisation					
Limits to system competition	Yes	Yes	No	Yes	No
Second-best	No	No	Yes	Yes	No
Complementarity between policies	No	Hardly	Yes	Sometimes	Yes
Lobbying	No	No	Yes	No/Yes	No
Pro-decentralisation					
Self interest and Accountability	Yes	Yes	Yes	Yes	No
Common pool	No	Yes	Yes	Yes	No
Lobbying	No	No	Yes	Yes	No
Credibility of co-operation	No	No	No	No	No
Proportionality	No	No	Yes	Yes/No	Yes
Conclusion on the role for EU budget	No	No	Yes	Yes//No	Yes
1 Other policies are the current EU activities related to administrative spending and Working in Europe: social dialogue and mobility and employment, social solidarity and gender equality. ESF is discussed under the heading Regional policy in Chapter 4.					

4 Cohesion policy

4.1 Policy and budget

4.1.1 History of Cohesion policy

Cohesion policy is the second largest budget item of the EU. In terms of budget, it manifests itself nowadays in the European Regional Development Fund (ERDF), the European Social Fund (ESF), and the Cohesion Fund (CF). The ERDF and ESF form the so-called structural funds (SF).⁴² For some (poorer) Member States, the payments from these funds can add up to a few percent of GDP each year.

Although regional imbalances were already discussed in the first years of the EU, these became increasingly important with the accession of relatively lower-income Member States in the 1980s, as well as in 2004 and 2007. In 1965, structural support was established, limited to agricultural regions. This mainly benefited France in order to balance the gains from European integration for the manufacturing industries in Germany. With the accession of the UK, the ERDF became operative as financial compensation. The UK would not receive much support for agriculture, and the UK asked to rebalance receipts from and payments to the EU budget (Molle, 2007).

The ERDF is the largest fund with a cohesion objective. It was established in 1975 in order to grant subsidies to stimulate investment and promote innovation, as well as to develop infrastructure in regions whose development is lagging behind, and to assist regions undergoing conversion or experiencing structural difficulties (Molle, 2007). The ESF was created in 1952 and supports measures aiming to achieve full employment, improve quality and productivity of work, and to promote social inclusion. The CF was set up in 1994 to help countries to deal with the effects of EMU and the constraints of the SGP. Notably, Portugal, Greece and the new Member States qualify for CF. Transfers from CF to Spain are being phased out in the budget period 2007-2013. CF gives assistance to Trans European Networks (TENs) and environmental projects. GDP per capita in these beneficiary countries has to be lower than 90% of the EU average.

⁴² Until 2006, the SF also contained the Guidance component of the Agricultural Guarantee and Guidance Funds (EAGGF) for structural adjustment of rural areas and the Financial Instrument of Fisheries Guidance (FIFG) supporting restructuring in fisheries.

4.1.2 The current budget

The EU has pre-allocated € 347 billion for cohesion policy in this budget period 2007-2013 (in current prices).⁴³ Cohesion policy has three objectives (Table 4.2 provides more details).

- *Convergence of lagging regions.* GDP per capita has to be less than 75% of the EU average to qualify and be eligible for this support (previously, this was called Objective 1).
- *Competitiveness and employment of restructuring regions* (previously called Objective 2). To be eligible, GDP per capita must exceed the threshold of 75% of the EU average. Unemployment is often high and infrastructure is often inadequate.
- *Territorial cooperation.* Eligible regions are characterised by deficient connectivity with other regions, quite often due to national borders. In principle, all regions could qualify.

All Member States will receive a share of the budget. About half of the cohesion budget is pre-allocated to the new Member States: € 178 billion; and about € 77 billion to the accession countries in the 1980s (Greece, Spain and Portugal). The four large Member States receive € 80 billion; and € 11 billion is reserved for the other countries. The pre-allocated funding scheme is based on the eligibility criteria for each of the funds.

The amount allocated to cohesion has increased over time in absolute figures, as well as in terms of the share of the EU budget. Total resources were € 65 billion in the period 1988-1993; € 159 billion in the period 1994-1999; € 213 billion in the period 2000-2006, and € 347 billion for the period 2007-2013 (Molle, 2007; and European Commission, 2007). This increase is not surprising. The accession of relatively lower income Member States in 2004 and 2007 increased the need for funds.

To assess the importance of the SC funds by objective, Table 4.1 provides the commitments for 2007. About three-quarters are destined for the convergence objective. For the whole budget period, 81% is reserved for the convergence objective, spent by the ERDF, ESF and CF; 16% is destined for regional competitiveness and employment using the ERDF and the ESF; and 3% is left for territorial cooperation financed by the ERDF (Molle, 2007).⁴⁴ It is therefore clear that convergence is the main objective for the whole budget period, at least from a budgetary perspective.

Table 4.1 Commitments in 2007 (in billion €) for cohesion policy: objectives and funds

	ERDF	CF	ESF	Total
Convergence	20.7	7.1	7.4	35.2
Competitiveness and employment	5.4		3.7	9.1
Territorial cooperation	1.1			1.1
Unclassifiable	0.1			0.1
Total	27.3	7.1	11.1	45.5

⁴³ See http://ec.europa.eu/regional_policy/atlas2007/fiche_index_en.htm.

⁴⁴ These calculations were based on older preliminary figures on pre-allocating cohesion funds. The numbers using current figures may differ slightly from the ones in the text, but they do not change the main message.

The table below shows that the ERDF mainly focuses on economic development and sustainable jobs; the Cohesion Fund focuses on transport and the environment; and ESF focuses on employment and social inclusion. For the convergence objective in particular, many measures are available. The ERDF funds can invest in R&D, innovation and entrepreneurship, education, energy and transport. These are typical measures to promote productivity and thus convergence in the longer term. Measures in environment, culture and health, and in social infrastructure could also be eligible. In themselves, these measures could be useful, but they seem to have a less direct relation to increasing productivity than the measures mentioned before. It is beyond the scope of this study to address the effectiveness of these measures in reaching convergence, but one could imagine that a careful analysis would finally conclude that the list of eligible measures should be shortened.

Table 4.2 Objectives and measures of the funds for cohesion policy

Policy axis	Objectives			Measures		
Convergence	The rationale of the Convergence objective is to promote growth-enhancing conditions and factors leading to real convergence for the least-developed Member States and regions					
	ERDF: • supporting sustainable integrated economic development • creation of sustainable jobs	CF: • financing of environmental measures • financing of trans-European transport networks (10 new Member States plus Spain, Greece and Portugal)	ESF: • prevent and combat unemployment • develop human resources • foster social integration in the labour market • promote a high level of employment • promote equal opportunities for men and women	ERDF: Investments in: 1. R&D, innovation and Entrepreneurship 2. Information society 3. Environment 4. Risk prevention 5. Tourism 6. Culture 7. Transport 8. Energy 9. Education 10. Health & Social Infrastructure 11. Direct assistance for SMEs	CF: - Environment projects on: 1. drinking-water supply 2. treatment of wastewater 3. disposal of solid waste 4. reforestation and erosion control 5. nature conservation measures - Transport infrastructure projects	ESF: 1. promotion & improvement of vocational training, education & counselling 2. research & innovation 3. promotion of a skilled, well-trained & flexible workforce 4. innovative & adaptable forms of work organisation & entrepreneurship 5. support career prospects & access to new job opportunities for women

Policy axis	Objectives	Measures	
Competitiveness and employment	The Regional Competitiveness & Employment objective aims to strengthen the competitiveness, employment and attractiveness of regions other than those which are the most disadvantaged. It must help to anticipate economic and social changes, promote innovation, entrepreneurship, the protection of the environment, accessibility, adaptability and the development of inclusive labour markets.		
	ERDF: • innovation and the knowledge economy • environment and risk prevention • access to transport & telecommunications services of general economic interest ESF: 1. prevent and combat unemployment 2. develop human resources 3. foster social integration in the labour market 4. promote a high level of employment 5. promote equal opportunities for men and women	ERDF: 1. improvement of regional R&TD & innovation capacities 2. entrepreneurship & creation of new financial instruments for businesses 3. environment and risk prevention 4. access to transport & telecommunications 5. services of general economic interest	ESF: 1. increasing adaptability among workers and businesses 2. greater investment in human resources 3. making qualifications and skills more accessible 4. fostering enterprise and innovation 5. anticipate and manage economic change

Policy axis	Objectives	Measures
Territorial Cooperation	The European Territorial Cooperation objective aims to strengthen cross-border, transnational and inter-regional cooperation. It aims to promote common solutions for neighbouring authorities in the fields of urban, rural and coastal development, the development of economic relations and the creation of networks of small and medium-sized enterprises (SMEs). ERDF: 1. development of cross - border economic, social & environmental activities 2. establishing & developing transnational cooperation (the priorities are innovation, the environment, better accessibility and sustainable urban development) 3. reinforcing effectiveness of regional policy	ERDF: 1. joint strategies for sustainable territorial development 2. encouraging entrepreneurship, protection and management of natural and cultural resources 3. development of collaboration, capacities and the joint use of infrastructures 4. bilateral cooperation between maritime regions 5. take steps to encourage regional and local authorities to form networks and exchange experiences

4.1.3 Economic rationale for cohesion policy

This section and the subsequent sections discuss the economic rationale for the provision of Structural and Cohesion Funds (SCF) to the Member States. This section evaluates the relevance of the three government functions: allocation, equity and stabilisation for SCF. In Sections 4.2 to 4.2.4 we distinguish between the objectives of convergence, regional competitiveness and employment, and territorial cooperation; and discuss the rationales for accompanying EU spending.

Allocation (efficiency)

The objectives of cohesion policy are specified in Section 4.1: convergence, regional competitiveness and employment, and territorial cooperation. The character of these objectives is closely related to efficiency arguments. The idea is that cohesion policy “helps towards the efficient allocation of resources by taking away bottlenecks and barriers to development” (Molle, 2007:105). If labour is quite immobile, human capital of unemployed workers will not be utilised unless conditions for favourable investments are met. Moreover, training of workers could enable them to adapt to new market circumstances and help them to utilise their human capital. The rationale for pursuing these efficiency objectives by the EU will be further discussed in Sections 4.2.2 to 4.2.4.

Stabilisation

Sometimes it is argued that cohesion policy could act as means for fiscal stabilisation. This issue was already discussed in more general terms in Chapter 2. Federal countries often have automatic fiscal stabilisers to spread the effects of asymmetric economic shocks over the whole federation. States with favourable economic growth automatically distribute some of their incomes to states with less favourable growth. This also contains elements of an insurance mechanism. States receive money in bad times and pay contributions in good times. For this kind of insurance mechanism, payments should be based on differences due to asymmetric shocks. However, the criteria to receive cohesion payments are often based on structural economic differences between countries. This is especially true for the convergence objective. In this sense, the SCF do not act as a stabilisation fund. It does stabilise the economy to some extent, however. The SCF provide the receiving Member States with a stable source of income for a number of years. This helps to stabilise investments over time in infrastructure, etc.

Inter-regional redistribution (equity)

SCF policies aim to provide more equity, but they do so via an efficiency measure. Income is redistributed via investment programmes aimed at increasing competitiveness. In practice, this leads to income redistribution between richer and poorer Member States (Begg, 2008; Molle, 2007), where *de facto* large sums of the cohesion funds are redistributed from higher-income to lower-income Member States. This equity argument has only gradually come to the fore in EU policies. It took until the mid-eighties before the funds became sizable. In general, redistributive funds to poor regions could be used to provide a minimum level of public goods or social assistance. This is often the case in federal countries, but not in the EU. The cohesion payments are specific-purpose grants to develop the regional economy and regional employment. Molle (2007) concludes that this type of grants matches with the existing degree of intra-EU solidarity. There is no EU-solidarity for general-purpose grants, or even a European social security system.

This redistributive character is not only fiercely discussed at the EU level, but also within certain EU Member States, e.g. in Germany, where transfers are used to equalise the revenues across the German *Länder*, especially after reunification. It is not guaranteed that such policies are successful in reducing personal income differences even in the long term. However, if income differences are very large, migration might take place and an adverse selection principle might be in effect, such that in the poorer regions only the poor and immobile people remain; whereas all young and active people are migrating to the dynamic regions.

Fenge and Meier (2008) argue that income distribution between regions could be useful to limit migration flows. Then SCF could be in the (self) interest of donating countries if migration imposes negative effects in that country. This argument could be relevant in times of high unemployment, but it is less relevant for countries with tight labour markets (i.e. with a labour shortage). Concerning the structure of regional policy, Fenge and Meier (2008) conclude that donating countries prefer matching grants to invest in infrastructure because this is more effective than redistribution in the form of wage subsidies.

In fact, Fenge and Meier (ibid.) argue for specific-purpose grants, as Molle does for other reasons. However, as an explicit means for income redistribution, general-purpose grants would be much more appropriate. For that reason, Begg (2008) concludes that cohesion policy is a rather clumsy way to redistribute income. However, income redistribution is not an explicit objective of cohesion policy, in any case.

4.2 Assessment

4.2.1 The redistributive character of cohesion funds

If the goal of cohesion policy is redistribution between rich and poor Member States, the EU is clearly the right level. However, intra-EU solidarity is low, and preferences for the degree of income protection differ widely (see also Chapter 3). The SCF payments are therefore specific-purpose grants. It is redistribution between Member States, but with a structural character, and one that aims to improve allocation.

The short description of the history of Structural and Cohesion funds in section 4.1 showed that the expansion of the funds was also often motivated to compensate Member States for the losses of some other policies, such as the Internal Market policy and EMU. There is thus a kind of complementarity between policies; with the risk that income receiving countries want SCF to attract as much funds as possible. To some extent this is capped at a maximum of 4% of GDP but does not eradicate the common pool problem completely.

4.2.2 Convergence objective

Normative arguments

Cohesion is a fundamental EU-wide objective (set out in Art. 2 of the Treaty) on a par – in constitutional terms – with the Single Market and Economic and Monetary Union.⁴⁵ Begg (2008) argues that the constitutional case is not necessarily based on sound economics; and it has been evident that EU cohesion policy has occurred for different reasons (such as those outlined in brief in section 4.1).⁴⁶ Below we set out economic arguments for EU involvement.

Convergence between small territories and neighbouring regions (within Member States) does not so much involve cross-border spillovers as does convergence between Member States. Consequently, if convergence relates to an entire (or large part of a) Member State, the argument for EU involvement is more persuasive than if it concerns a smaller territory. In addition, there are arguments related to economies of scale. At the EU level, one finds the institutional capacity to govern and monitor convergence projects, and at the EU level there is the fiscal capacity to finance these programmes. For these reasons, Molle (2007) concludes that there is a clear case for EU involvement. Additional arguments relate to spillovers from Member State policies. Firstly, stimulating the regional economy could increase production and income. Exports and imports are stimulated as a result, which affects production and consumption possibilities in other countries. Secondly, negative externalities could show up if regional support encourages foreign firms to establish at the expense of other countries.

The majority of convergence funding is destined for regions in poorer Member States (see the figures mentioned in Section 4.1). Regions are only eligible for convergence if regional income is less than 75% of the EU average. Buti and Nava (2003), Begg (2008) and Molle (2007) underpin SCF to these regions for several reasons. First of all, the transfer of resources has to be orchestrated by a higher level of government. Secondly, the higher governmental level can impose governance conditions stipulating that the support is used appropriately. The third reason is the externality argument: a higher level of government can easier handle harmful competition between regions to improve competitiveness. This could also stimulate and help poorer Member States to develop their respective institutional capacities.

Not only poor regions in poorer Member States receive support from SCF, but also poor regions in rich Member States are eligible for convergence. Some examples are regions in eastern Germany and in southern Italy.⁴⁷ Average income per capita is high in these Member States, but not in some specific regions. For this case, Begg doubts the rationale for EU intervention for two reasons. Firstly, richer countries have the funds to finance cohesion policy themselves. Secondly, assignment of cohesion policy to the Member

⁴⁵ The mandate for a European policy is fleshed out in Art. 158 of the Treaty, which emphasises the need to reduce 'disparities between the levels of development of the various regions and the backwardness of the least favoured regions'; and Art. 159-161 which establish the legal basis for the Structural and Cohesion Funds.

⁴⁶ Notably the Lisbon strategy is important in this respect, as a large part of the SCF for convergence is instrumental to achieving the Lisbon objectives.

⁴⁷ Table 7.2 in Molle (2007) provides a nice example of SCF pre-allocated to Germany and Italy for the convergence objective.

State level may give a better match with regional preferences; and there are lower transaction costs involved. Other studies (CPB, 2002, Buti and Nava, 2003) reach similar conclusions. EU funds could still be useful for these regions if wealthier Member States did not provide sufficient resources to these regions, or did not have the appropriate delivery mechanism. This is a second-best argument and it creates a moral hazard problem in that Member States have fewer incentives to create delivery mechanisms in the first place.

The diversity of regions is normally a counter-argument to centralisation. This does not make much sense for this policy area. If there was no diversity, cohesion policy would not be needed at all. This does not imply that diversity is not to be taken seriously. The underlying causes for low incomes per capita differ between the regions, and so do the solutions for creating paths towards convergence. Implementation at regional level and co-financing by regions and/or Member States can be a good strategy to take account of this diversity. So diversity is large, but not an obstacle for EU budgetary intervention.

Public choice arguments

Molle (2007) describes how the changes in the size of the SCF over the last two decades were often the outcome of political negotiations; where Member States were financially compensated through cohesion payments for losses in some other policy areas. This issue has been briefly addressed in Section 4.1. This history shows the size of SCF and the eligibility criteria are not isolated from political interventions in the negotiations of a new budget period.

Begg (2008) warns for the adaptation to (or dependency on) cohesion policy for constitutional and political economy reasons. Cohesion policy is in principle temporary: it comes to an end when poorer countries/regions catch up. If a region exceeds the 75% average income level, payments aimed at convergence would peter out, in principle. However, Member States could have incentives to negotiate the phasing out the funds or ask for funds to support regional competitiveness and employment. A good example is Spain, which is no longer eligible for the Cohesion Funds (income exceeds 90% of the average) but was able to arrange phasing out funds from the EU.

Given the size of SCF, lobbying for these funds is to be expected. If only some lobbying groups are successful, the risk is real that dominant local interest will convince local policy-makers. On the one hand, this leads to policies that only serve these dominant interests rather than wider regional interests. On the other, these convinced policy-makers may be brought to exert influence via their representatives in Brussels or other political vehicles. As such, local lobbying is brought to the central level via convinced policy-makers. The common pool argument works as a catalyst in this process. If support from the SCF is provided at EU level, measures against distorting lobbying should be developed. An effective measure would be to require co-financing by Member States; where EU funding should be strictly limited to EU-wide spillovers, e.g. in the railway system or in other infrastructure areas. This would create a policy mix which considers regional development and concentrates on the need to support from the EU side.

4.2.3 Regional competitiveness and employment objective

About one-sixth of the available SCF for the period 2007-2013 is pre-allocated to the objective of regional competitiveness and employment. All regions with an income per capita of more than 75% of EU average (mainly regions in the richer Member States) qualify. The old EU-15 Member States will receive about 90% of the budget pre-allocated for the competitiveness and employment objective via the ERDF and ESF (even excluding Greece and Portugal). Only a few billion euros are allocated to the Czech Republic, Slovakia, Hungary and Cyprus. For the present period, budgets are allocated to three themes facilitating the Gothenburg and Lisbon objectives: innovation and the knowledge economy; environment and risk prevention; and accessibility to transport and communication services.

Normative issues

In practice, the ESF and ERDF funds aimed at regional competitiveness and employment flow exclusively to regions in relatively rich Member States. These Member States have the financial capacity to finance these policies themselves, and they also have the institutional capacity to govern and monitor sponsored projects. Note that these arguments were used in Section 4.2 to underpin an EU budget for the convergence objective. Thus the economies of scale argument does not seem to apply here. The externality argument is, though, still valid: higher production and incomes in supported regions can have positive spillovers to other regions also in other countries via trade. Nevertheless, these spillovers via trade and prices are not very large.⁴⁸ Moreover, the EU could handle negative external effects if regions compete to attract the same foreign firms. The size of these external effects of regional policies at the Member State level is, however, debatable. If EU intervention is beneficial, regulatory intervention could be more effective in establishing a level playing field (such as limits to subsidise foreign firms).

The diversity argument in the normative subsidiarity test leans towards national involvement. In general, Member States have better knowledge of the specifics of their regions than the EU, and have better incentives to spend the money more effectively (Gelauff et al., 2005).

Public choice and other arguments

The history of Structural and Cohesion Funds in the EU is paved with arguments to balance benefits for all countries and to equalise national payments to, and receipts from the EU budget. When these funds came to the fore they were allocated to regions in Member States with average incomes per capita. The different eligibility criteria for the degree of national or regional co-finance for regions qualifying and not qualifying for the convergence objective could probably also be explained by *juste retour* arguments.

Support to regional competitiveness and employment is also complementary to other policies, in particular Internal Market policy and External Trade policy. These policies limit the possibilities of Member States to support threatened industries. EU regional policy could be the acceptable alternative. From a political point of view, it is completely

⁴⁸ See Barrell et al. (2007).

acceptable that groups or regions substantially affected by EU policies have to be compensated (by other policies). Such support is then given under the title cohesion. For all sorts of practical purposes, it uses the implementation mechanisms of the cohesion policy, too.

The EU has set itself very ambitious goals in the framework of the Lisbon strategy to become the most competitive and dynamic knowledge-based economy in the world; capable of sustainable economic growth with more and better jobs and social cohesion. There is a clear case for the EU to be involved in these policies, as there is a lot of complementarity and there are policy externalities. In the beginning this policy had been conceived outside of the EU budget framework. Objectives were to be realised through the coordination of other EU and national policies. It appeared that this was not enough to produce the desired results. National compliance was to be stimulated by EU subsidisation of national programmes. As the political discussions on the EU budget did not open possibilities for new objectives, it has been decided that existing mechanisms are to be used. So the SCFs have been turned into instruments to serve the purpose of the Lisbon agenda. This applies both to the financial resources and to the system of delivery (Molle, forthcoming). The activities still operate under the banner of cohesion policy. For a correct judgement, however, one has to look to the content and not to the tag. It then appears that the cohesion funds for regional competitiveness and employment do serve very important EU objectives by subsidising national projects. In particular, the theme of innovation and knowledge economy serves the Lisbon goal of increasing R&D spending. Co-financing by the EU on this score stimulates Member States to increase their R&D spending. In a recent speech, Danita Hübner, the Commissioner for Regional Policy⁴⁹ said that about € 62 billion of the SCFs for the present programming period will be allocated to R&D and innovation. This exceeds the budget of the 7th Framework Programme for Research. Another theme of this SCF objective - accessibility to transport and communication services - also fits into the Lisbon agenda. All in all, supporting competitiveness is not the exclusive domain of the Member States. However, within the cohesion framework, the current redistribution towards rich Member States seems odd. There are arguments for supporting competitiveness policies but these relate strictly to spillovers and scale economies (see also Chapter 5 and 6). Such support may, for example, focus on cross-border infrastructures (TENs, see Chapter 11) or research networks (Cooperation, see Chapter 6). Notably, the entire framework for the Single Market is in a sense aiming at improvement of Europe's global competitive position (see Chapter 5).

EU cohesion policy could prevent lobbying from regional representatives at the Member State level. On the other hand, European regions also lobby in Brussels. The risk of common pool problems and better accountability of national politicians also point towards national budgets for regional policy. In particular, with such low national co-financing rates of 15%, the common pool problem is potentially large - although in practice, national co-financing rates are much higher.

⁴⁹ Opening speech, 4th Cohesion Forum, Brussels, 27 September 2007.

4.2.4 Territorial Cooperation objective

Normative issues

A very small part of the cohesion budget (about 2.5%) is destined for territorial cooperation, in particular for cross-border cooperation of regions. In practice, this kind of cooperation is often hampered by the fact that both regions are part of different countries. Institutions, culture, languages and often governance differ. Regions developed their ties with regions in the same country; and less so with those in other countries. As a result, the mindset is also not focused on cross-border cooperation. However, cooperation could be welfare increasing as some problems can only effectively be dealt with jointly. The relative high transaction costs due to all cross-border differences can be overcome by stimulus from a higher governmental level. Specific subsidies could be helpful to overcome external effects. Quite often it is complementary to internal market policies because cross-border cooperation also facilitates and stimulates the free movement of goods, services, capital and labour between regions. The EU budget could provide the means to support decentralised policy-making by internalising the external effects of these regional policies.

As already suggested above, the regions have different institutional structures, cultures and probably also preferences. So diversity probably also limits cross-border cooperation. However, in general, neighbouring regions are less diverse from each other than two arbitrary regions; and cooperation will be focussed on issues with a common interest. All in all, the diversity issue weighs less than in the case of other policies. The normative arguments point towards favouring EU policies for cross-border cooperation, and the complementarity with Common Market policies adds to this. The funds could be vulnerable for common pool problems. To some extent, regional co-funding could prevent crowding-out from other projects.

4.3 Conclusion

Convergence

The main aim of cohesion policy is the convergence objective. Regions are only eligible for convergence if regional income is less than 75% of the EU average. Consequently, the majority of convergence funding is destined for regions in poorer Member States.

EU involvement is justified on many grounds, e.g. complementarities between policies, second-best issues and solidarity between Member States. Arguments for redistribution and preventing emigration from low-income regions can also contribute reasons for EU involvement in cohesion policy. The redistributive argument is complementary to the allocation objectives of convergence.⁵⁰ The contribution of the structural and cohesion payments to poorer regions in poorer Member States to a better income distribution and to stabilisation is a welcome by-product, but this need not by itself justify EU involvement in cohesion policy. Additional arguments relating to scale economies and externalities would be required. This is the case for most of the structural and cohesion

⁵⁰ For redistribution between Member States per se and fiscal stabilisation, other fiscal and spending mechanisms could be more effective.

funds that are allocated for regional convergence in the poorer Member States. Here there are clear economies of scale for EU involvement with respect to financial and institutional capacity.

Furthermore, if convergence concerns an entire (or much of a) Member State, the argument for EU involvement is more persuasive than if it is just a smaller territory, especially if it is a region in a richer Member State. In this case, the smoothing of regional disparities can be done more easily and effectively at the national level. However, if the EU provides these funds, eligibility should be tight and should also include substantial co-financing from the Member States, so as to prevent lobbying and common pool behaviour.

Regional competitiveness and employment

About one-sixth of the available Structural Cohesion Funds for the period 2007-2013 is pre-allocated to the objective of regional competitiveness and employment. All regions with an income per capita of more than 75 percent of the EU average qualify; these are mainly regions in the richer Member States. At present, these funds are allocated to three themes facilitating the Gothenburg and Lisbon objectives: innovation and the knowledge economy; environment and risk prevention; and accessibility to transport and communication services.

In practice, ESF and ERDF aimed at regional competitiveness and employment flow exclusively to regions in relatively rich Member States. These Member States have the financial capacity to finance these policies themselves, and they also have the institutional capacity to govern and monitor sponsored projects. For the improvement of regional competitiveness and employment there is thus not much of a reason for budgetary intervention by the EU. Some arguments can be put forward in favour of EU budgetary intervention to support Internal Market policies and the Lisbon agenda. In particular, EU co-financing of R&D activities can be justified as an EU budget activity (see also Chapter 6). But these activities need not be financed in a regional policy framework. There are further arguments against EU financing within the regional framework, in particular diversity and common pool problems.

Territorial cooperation

A very small part of the cohesion budget (about 2.5%) is devoted to territorial cooperation, in particular for cross-border cooperation of regions. In practice, such cooperation is often hampered by the fact that both regions are located in different countries. Institutions, culture, languages and often governance differ. Regions developed their ties with regions in the same country and less so in other countries. As a result, the mindset is also not focused on cross-border cooperation.

Cross-border cooperation can be welfare-increasing, since some problems can only be dealt with effectively together, and because opportunities for cooperation are neglected otherwise. The relatively high transaction costs due to all cross-border differences can be overcome by stimulus from a higher governmental level. Specific subsidies can be helpful in overcoming external effects. Quite often, territorial cooperation is complementary to internal market policies because cross-border cooperation also facilitates and stimulates the free movement of goods, services, capital and labour between regions. The EU budget

can provide the means to support decentralised policy-making by internalising external effects of regional policies. Normative arguments thus point towards favouring EU policies for cross-border cooperation, and the complementarities with common market policies add to this. The funds could be vulnerable for common pool problems, but to some extent this is limited due to the requirement of request by cross-border regions; moreover, regional co-funding can prevent crowding-out from other projects to some extent.

Table 4.3 summarises the conclusions of the previous sections.

Table 4.3 Conclusions on Structural and Cohesion Funds

Objectives	Convergence	Competitiveness and employment	Territorial cooperation
<i>Does the following apply:</i>			
Normative test			
Economies of scale	Yes	No	Possibly
Externalities	Limited	Limited	Yes
Diversity	Yes	Yes	Limited
Pro-centralisation			
Limits to system competition	Yes	Yes	No
Second-best	Yes	No	Yes
Complementarity between policies	Sometimes	Yes	Yes
Lobbying	Yes	Yes	Yes
Pro-decentralisation			
Self-interest and accountability	Yes	Yes	No
Common pool	Yes	Yes	Yes
Lobbying		Yes	
Credibility of co-operation	No	No	Sometimes
Proportionality	Yes	No	Yes
Conclusions on the role for the EU budget	Yes	Limited	Yes

Role in terms of the budget

From a normative point of view, there is not much to be said in favour of the competitiveness and employment objective (in particular within a regional policy framework).

Funds allocated to regional convergence are justified, especially if they refer to convergence of (large parts or entire) Member States. Implementation of these policies at the national or regional level, and co-financing by regions or Member States will improve their effectiveness.

The budget for territorial cooperation is justified on subsidiarity grounds. There are no further indications to conclude that the amount of money involved should be changed.

5 Competitiveness and the Single Market

5.1 Introduction

This chapter deals with Competitiveness and Single Market policies; more specifically, with the Internal Market, Taxation and Customs, common External Trade policies and policies on competitiveness and innovation (Enterprise and Industry). The relations between the several policy areas and the Single Market are clarified while discussing Internal Market policies in Section 5.2.1. The remainder of Section 5.2 discusses respectively the Taxation and Customs Union (5.2.2), common External Trade policies (5.2.3), Competition policy (5.2.4) and Enterprise and Industry (5.2.5).

Section 5.3 proceeds with an assessment of the need for EU involvement in Competitiveness and Single Market policies in general, and, more specifically, in policies on competitiveness and innovation - since these require a relatively large budget (relative to other Single Market policies).

5.2 Policy and budget

5.2.1 Internal Market

History: from customs union to economic union

The Internal Market is one of the foundations on which the European Union is based. The European Economic Community started as a so-called Customs Union. Its goal was to promote economic integration by eliminating the role of internal territorial borders on economic activities, in particular the trade in goods and services (Pelkmans, 2006a). The Customs Union, which focuses on free trade, has in due course developed to become an economic union. An economic union attempts to promote integration further by means of free mobility of labour and capital.

Common Internal Market policies imply a common external policy, as well.⁵¹ Many policies - including the underlying Internal Market principles - need adequate and consistent consideration in the negotiation of international agreements.⁵²

⁵¹ Virtually all Internal Market policies carry to some degree an "international dimension": many EU financial institutions operate on a global scale, and significant differences between the respective Internal Market principles and the third-country rules can negatively affect their international operations; the need for adequate protection of copyright or patents on European products does not stop at the EU border; and the protection of personal data remains an issue where it leaves the Internal Market.

⁵² Notably in the context of enlargement, in regulatory dialogues with third-countries, and in all the other international fora where the Commission takes a position on Internal Market policies, whether bilateral or multilateral.

With respect to the allocation problems (see Textbox 5.1 below), Internal Market policies typically address problems related to institutional (and regulatory) rigidities: notably the effects of (territorial and other institutional) barriers on mobility of capital, people (and labour), goods and services (and the freedom of establishment).

Textbox 5.1 The allocation problem defined

The allocation function refers to government intervention in the presence of a (combination of) market failure(s). The classical four forms of market failure are: public goods, externalities, market power (arising from returns to scale), and information problems. Sometimes this list has been extended to include other forms of allocation problems:⁵³ merit goods, institutional rigidities, imperfect factor mobility, frictional problems of adjustment, and subsidisation of foreign competitors. Although, in a strict sense, these allocation problems arise due to the presence of one or more of the classical market failures, or as a result of other government intervention; they are worth incorporating as a separate argument since they represent specific application of the market failure(s) involved.⁵⁴

Rationale: the benefits from free movement of labour, capital, goods and services

The philosophy behind these integration developments is that integration improves welfare through free trade, free movement of labour and free movement of capital (Niebuhr and Stiller, 2004). Free trade maximises welfare by creating possibilities for regions to specialise in activities in which they have a comparative advantage. Consequently, free trade will lead to lower prices and a larger variety in the quantity and quality of products (Pelkmans, 2006b). The free movement of labour and capital on the one hand promotes an efficient allocation of production factors; on the other hand, it improves the integration of economic activities and structures - which creates possibilities to enjoy economies of scale and scope through agglomeration effects (Krugman et al., 2001). From this, it follows that also free movement of capital and labour improves the ability to develop comparative advantages; resulting in higher living standards, more economic growth and lower unemployment rates.⁵⁵

Policy framework

The cornerstones of the Single Market are the ‘four freedoms’ (the free movement of people, goods, services and capital). These freedoms are enshrined in the EC Treaty and form the basis of the Single Market framework. For individuals, this results in the right to live, work, study or retire in another EU country; for consumers, it means lower prices and a wider variety of products; and for businesses it means easier access to inputs, more efficient production and lower transaction costs when conducting cross-border transactions. The ultimate and overall objective is to create an optimal business environment within the European borders that benefits all. Consequently, additional areas in protection of (property) rights and in business-related legislation are explicitly incorporated in the Internal Market policy framework.

⁵³ Notably in the document of the European Commission: European Economy, European Commission, DG for Economic and Financial Affairs, Number 3, 1999, p.31-37.

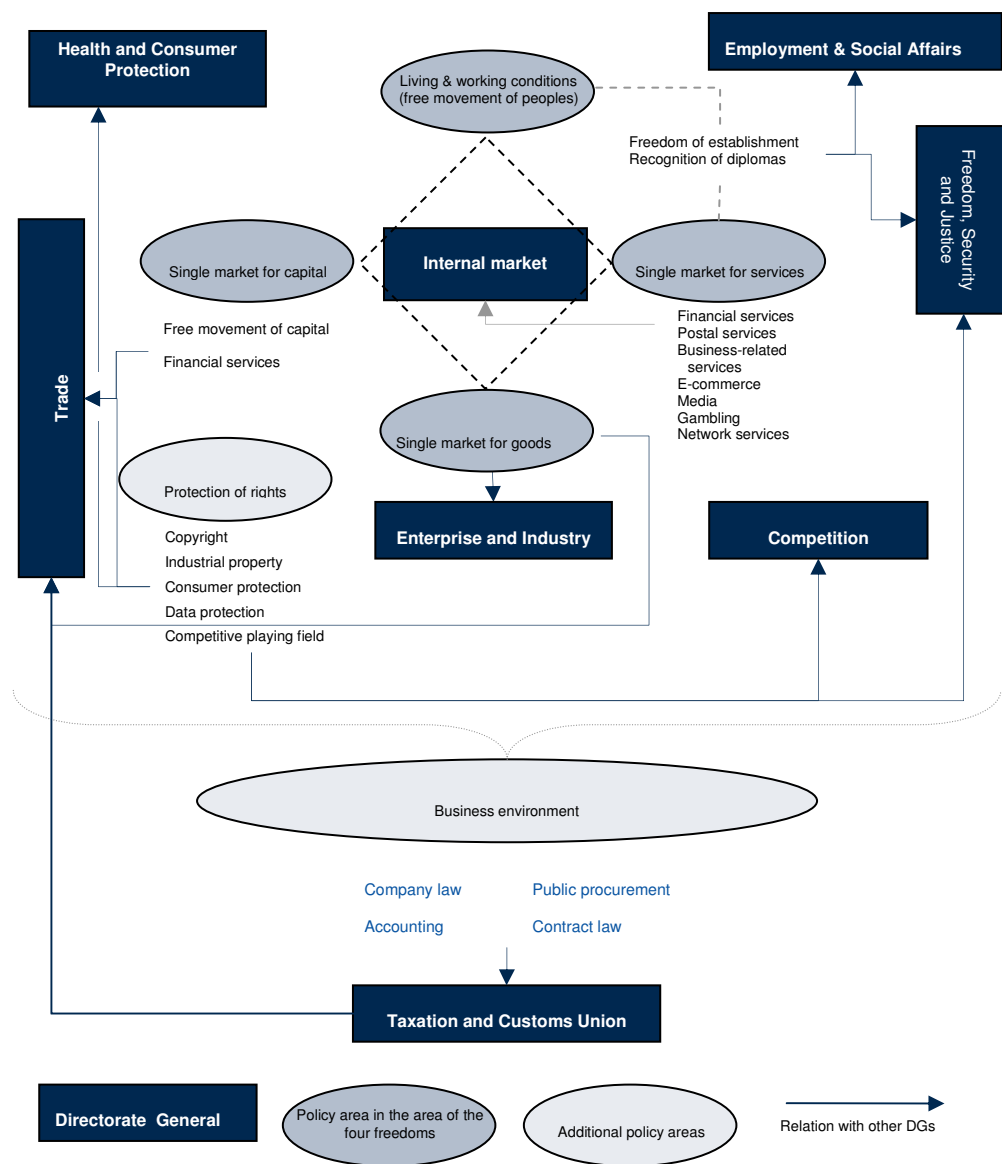
⁵⁴ See for a more elaborate discussion Appendix 1

⁵⁵ In addition, a larger ‘domestic’ market is created.

This framework for Internal Market policies extends over multiple DGs. The establishment of the Internal Market automatically leads to a need for a common external policy. This requires involvement of trade policies and policies on taxation and customs. The EU also has an essential function in the coordination of national tax policies. But there are more relations with other policy areas. The free movement of goods is strongly related to the policy fields concerned with industries and enterprises. The free movement of people requires a freedom of establishment, recognition of diplomas, as well as proper rules on how migrants and commuters are registered in national social security systems. This requires coordination with policy areas of Employment and Social Affairs and with policy areas of Justice, Freedom and Security. The latter is also involved in policy on the protection of data. In the Single Market, the protection of consumer rights involves the policy field of Health and Consumer Protection. Finally, (enforcement of) competition policy is required to guarantee a level playing field throughout the Internal Market.

The figure below provides an overview.

Figure 5.1 Policy framework and organisation chart for internal market policies



Source: ECORYS.

Living and working in the Single Market (free movement of people)

European policies regarding the free movement of people are on the one hand in the sphere of justice and home affairs; such as preventing criminals from taking advantage of a European space without frontiers. On the other hand, specific policies on the free movement of workers relate to the area of Employment and Social Affairs; - such as recognition of diplomas, integration in social security systems, etc.

A Single Market for goods

Articles 28 and 29 of the EC Treaty prohibit quantitative restrictions on imports, exports or goods in transit and all measures having equivalent effect between Member States. Rules laying down discriminatory requirements to be met by goods originating in other Member States are prohibited; whereas rules on selling arrangements indistinctly applicable to domestic and imported goods in principle fall outside of the scope of its application.

A Single Market for services

The principles of freedom of establishment and free movement of services have been clarified and developed over the years through the case law of the European Court of Justice. In addition, important developments and progress in the field of services have been brought about through the Services Directive, but also through specific legislation in fields such as financial services, telecommunications, broadcasting, etc., and the recognition of professional qualifications.

A Single Market for capital

Free movement of capital is an essential condition for the proper functioning of the Single Market. Free movement of capital is also an essential condition for the cross-border activities of financial services companies.

Business environment

Harmonisation of the rules relating to Company Law and Corporate Governance, as well as to accounting and auditing, is a key element of this policy. Furthermore, EU law on public procurement aims to increase competition and transparency in the public sector of the European economy. Other areas where the Commission is committed to improving the regulatory environment for business and to removing obstacles to cross-border trade include Contract Law and taxation.

Protection of rights

The four freedoms of movement – of goods, services, people and capital – are underpinned by a range of supporting policies aimed at combating illegal activities, fostering legitimate trade and protecting the interests of individuals and companies. These policies have the objective to preserve the protection of rights of consumers and businesses. These include policies such as consumer protection and data protection. But also competition-related issues and the protection of intellectual property rights.

Source: European Commission, see http://ec.europa.eu/internal_market/.

The budget for Internal Market policies

The activities for Internal Market policies primarily involve regulatory policies and coordination and consultation activities. These mainly involve administrative costs and consequently, the budget for Internal Market is relatively small (0.05% of the total EU budget) – see Table 5.1.

Table 5.1 EU budget for Internal Market - 2007

Name Budget chapter	Budget chapter	Commitments		
		Billion €	As % of	
			Budget chapter	Total budget
Administrative expenditure of Internal Market policy area	12.01	0.05	88.31	0.04
Policy strategy and coordination for the Directorate-General for the Internal Market	12.02	0.01	11.69	0.01
Internal Market for services	12.03	p.m.		
Internal Market	12	0.06	100	0.05

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html.

Expenditures include spending on studies, surveys, meetings of experts, information, activities and publications. Policy strategy and coordination is the second largest budget chapter; it covers the remainder of the funds. These appropriations are intended to cover expenditure arising in connection with (administrative) measures contributing to the completion of the Internal Market and its operation and development. It includes the costs of consultation, studies, surveys, evaluations, participation, production and the development of publicity, awareness-raising and training materials.

5.2.2 Taxation and the Customs Union

Policy framework:

The framework for the Taxation and Customs Union has two main areas: customs and taxation. International affairs and the fight against fraud could be mentioned as a third and fourth policy area - but these overlap strongly with the other fields. Both policies (taxation and customs) aim to contribute to the establishment of the Internal Market. The Customs Union is essential to the functioning of the Internal Market by providing a common application of common rules at its external borders. Taxation policies address institutional (tax-related) rigidities that obstruct any of the four freedoms.

Until recently, the role of Customs consisted primarily of collecting duties and indirect taxes at the point of importation. Today, Customs are to facilitate trade (whilst applying necessary controls), protect the interests of the Community and its citizens, and fight against fraud and organised crime. The common rules at the external borders go beyond the 'pure' Customs Union (common external tariff) and extend to all aspects of trade policy; covering aspects such as preferential trade, health and environmental controls, the common agricultural and fisheries policies, the protection of our economic interests by non-tariff instruments and external relations policy measures.

EU tax policy is not so much involved with the collection of taxes, but more with the incorporation of negative spillovers from national tax systems. Subsidiarity is very explicitly embedded in EU tax policy. The Commission's tax policy strategy reads: "Provided that they respect Community rules, Member States are free to choose the tax systems that they consider most appropriate and according to their preferences. In addition, any proposal for Community action in the tax field would take full account of the principles of subsidiarity and proportionality. There should only be action at EU level where action by individual Member States could not provide an effective solution. Many tax problems might, in fact, simply require better co-ordination of national policies."⁵⁶ Within the framework, the main priority for tax policy is that of addressing the concerns of individuals and businesses operating within the Internal Market; hereby focusing on the elimination of tax obstacles to all forms of cross-border economic activity.

Table 5.2 below provides an overview of objectives and corresponding measures for each policy field.

Table 5.2 Objectives, measures and programmes in the field of taxation and the Customs Union

Objectives	Field of activity	Measures / Programmes
Customs strategy: manage, defend and develop the Customs Union as a vital part of protecting the external borders of the EU;	- Customs duties, - Customs procedures, and - Customs controls	- Consultation, studies, impact assessments, - Publicity campaigns, awareness-raising and training
Tax strategy: tackle the tax obstacles that prevent exploiting the full benefit of the Internal Market;	- Taxes and excises (personal or company tax, VAT, excise duties, car taxes, other taxes).	- Consultation, studies, impact assessments, - Publicity campaigns, awareness-raising and training
International strategy: respond to the international challenges associated with customs and tax policies;	- International co-operation, - Trade facilitation	- Customs Cooperation and Mutual Administrative Assistance Agreements - Customs 2007
Anti-fraud strategy: facilitate better co-operation between Member States to combat tax and customs fraud;	- Tax co-operation, - Control and anti-fraud, - Customs controls	- Computerisation of the excise system (EMCS) - Customs 2007 - Fiscalis 2007

Source: European Commission, see http://ec.europa.eu/taxation_customs/common/about/welcome/

The budget for policies in the field of taxation and the customs union

The budget for taxation and the Customs Union is relatively small (about 0.1% of the overall budget). 43% of its resources are devoted to administrative expenditures (staff, buildings, travelling, etc.). A relatively small fraction of the budget (3.2%) is devoted to

⁵⁶ Set out in: European Commission (2001a), Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee, Tax policy in the European Union - Priorities for the years ahead, 23.5.2001, COM(2001) 260 Final

measures related to the Customs and Taxation strategies (see Table 5.2); and even a smaller fraction is spent on international aspects of taxation and customs.

Table 5.3 EU Budget for policies in the field of Taxation and the Customs Union – 2007

Name Budget chapter/Article	Budget chapter / Article	Commitments		
		Billion €	As % of	
			Budget chapter / Article	Total budget
Administrative expenditure of Taxation and Customs Union policy area	14.01	0.05	43.34	0.04
Policy strategy and coordination for Taxation and Customs Union Directorate-General	14.02	0.004	3.19	0.00
International aspects of taxation and customs	14.03	p.m. ⁵⁷		
Customs policy	14.04	0.03	31.81	0.03
<i>Customs 2007</i>	14.04.02	0.03	31.81	0.03
Taxation policy	14.05	0.02	21.66	0.02
<i>Computerisation of the excise system (EMCS)</i>	14.04.02	0.01	6.64	0.01
<i>Fiscalis 2007</i>	14.04.03	0.02	15.02	0.01
Taxation and Customs Union	14	0.11	100	0.09

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html.

The budget articles Customs policy and Taxation policy (together comprising about 53% of the funds) mainly relate to the anti-fraud strategy. Customs policy is equivalent to the Customs 2007 programme; and Taxation policy to the EMCS and Fiscalis 2007 programmes. The Customs and Fiscalis 2007 programmes are both designed to ensure that Member States' tax and customs administrations interact efficiently and to develop the modern and efficient computer-based systems and IT technologies to facilitate legitimate trade while combating fraudulent activities. The computerisation of the excise system (EMCS) introduces a system which will provide Member States with real-time information about consignments in transit, enabling them to plan checks and inspections in advance.

5.2.3 External Trade Policy

Policy framework

Following directly from the formation of a Customs Union, the European Union's economic relations with the rest of the world are an integral part of the EU's Internal Market objective. External Trade is concerned with negotiating bilateral and multilateral trade agreements and working closely with the WTO and other multilateral institutions. It

⁵⁷ 1.6% of 2006 payments.

covers all the main aspects of trade in goods and services (tariff and non-tariff barriers, trade protection measures, in particular in cases of dumping and subsidies, export credits) and the issues of intellectual property, investment and competition.

Officially, External Trade Policy aims “to contribute, in the general interest, to the harmonious development of world trade, the gradual removal of restrictions to international trade and the reduction of customs barriers.”⁵⁸ Furthermore, “[it] contributes to the Union’s broader goals of promoting sustainable development and assuming a larger role in multilateral governance.”⁵⁹ The mission statement of the Directorate General adds to this that “EU’s external trade policies aim to ensure that businesses can operate fairly in the EU and across the world and to tackle practices of unfair competition and dumping.”

The tasks of External Trade in this respect are as follows:⁶⁰

- to *define (and reappraise) the trade interests* of the European Community in both defensive and offensive terms;
- to *negotiate* bilateral, regional or multilateral agreements wherever the Union’s commercial policy objectives so require;
- to *monitor* and ensure the implementation of international agreements;
- to take part in *devising and monitoring* internal or external policies which have a bearing on the Union’s trade and external investments;
- to *ensure consistency within the Relex group* between the commercial policy and the Union’s general external relations policy on the one hand and the contribution of the European Union to global economic governance on the other.⁶¹

The budget for trade policy

Given the tasks of the Commission in relation to external trade, it is not surprising that the budget for trade policy is relatively small (0.6% of the total budget), and that most of it (about 80%) is spent on administrative expenditure of trade policy (including expenditures on trade delegations). Only 20% is specifically earmarked for supporting trade policy in the field of maintaining external trade relations and aid for trade.⁶²

⁵⁸ See: http://ec.europa.eu/budget/budget_detail/policy_areas_en.htm#20.

⁵⁹ See: http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/nmc-titleN196C5/index.html.

⁶⁰ See: http://ec.europa.eu/trade/whatwedo/work/index_en.htm.

⁶¹ RELEX is the Directorate General for External Relations.

⁶² Aid for trade consists of multilateral programmes and initiatives in the field of trade-related assistance to strengthen the capacity of developing countries to participate effectively in the multilateral trading system and regional trading arrangements and to improve their trade performance.

Table 5.4 EU budget for trade policy - 2007

Name Budget chapter/Article	Budget chapter / Article	Commitments		
		Billion €	As % of	
			Budget chapter / Article	Total budget
Administrative expenditure of trade policy area	20.01	0.06	79.16	0.05
Trade policy	20.02	0.01	20.84	0.01
<i>External trade relations</i>	20.02.01	0.01	14.55	0.01
<i>Aid for Trade</i>	20.02.03	0.005	6.30	0.00
Trade	20	0.07	100	0.6

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html.

5.2.4 Competition Policy

Policy framework:

With respect to Competition Policy, the mission of the Commission is to enforce the competition rules of the Community Treaties in order to ensure that competition in the EU market is not distorted; and that markets operate as efficiently as possible, thereby contributing to the welfare of consumers and to the competitiveness of the European economy.

Competition policy specifically deals with the allocation problem associated with market power (see Textbox 5.1 above). This is reflected in Article 81 and 82 of the Treaty and Regulation (EC) No.139/2004 (on merger control). In order to apply competition regulation, the Commission initiates informal market monitoring and formal sector inquiries to feed the Commission's sector knowledge and enforcement activities. But the Commission also follows a different strategy: that of competition advocacy, as opposed to enforcement.

An implicit subsidiarity test is incorporated in the EU competition regulation as it only applies when it concerns cross-border activities or effects; in other cases, national competition rules apply. Although, it must be said that as a result of EU directives in the field of Competition Policy, antitrust regulation in Member States has been brought in line with the so-called prohibition system on which Article 81 and 82 are based (as opposed to the abuse system). By itself, policy development is another activity that falls within the domain of competition.

Furthermore, EU competition policy aims to ensure that a level playing field is preserved by enforcing rules on State aid. In a case of noncompliance by a Member State, the Commission can start an infringement procedure and if this is not adhered to, the Commission may bring the case to court.

Finally, there is an international dimension to Competition Policy. This mainly entails safeguarding the effective enforcement of the EU competition rules in an international environment, and avoiding conflicts with the competition authorities of other countries. Such convergence is also beneficial to businesses that operate in several jurisdictions. The Commission's strategy is to promote international convergence of Competition Policy in general by creating tools for bilateral and multilateral co-operation.

The budget for Competition policy

The budget for Competition policy is fully devoted to administrative expenditure to enforce the legislative framework, to design policies and to advocate Europe's Competition Policy throughout Europe and the world.

Table 5.5 EU Budget for Competition Policy – 2007

Name Budget chapter	Budget chapter	Commitments		
		Billion €	As % of	
			Budget chapter	Total budget
Administrative expenditure of Competition Policy area	03.01	0.07	100	0.06
Cartels, anti-trust and liberalisation	03.03	-	0.00	0.00
Competition	03	0.07	100	0.06

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html.

5.2.5 Enterprise and Industry

It goes beyond the purpose of this study to describe the entire policy field of Enterprise and Industry (and all its sector-specific policies). Here we focus on the main elements that relate to the functioning of the Internal Market and competitiveness.

Policy framework:

The policy area of Enterprise and Industry aims to make the European Union the most competitive and dynamic knowledge-driven economy by making it more entrepreneurial and innovative; and by getting full benefit from the Internal Market. With respect to the Internal Market, enterprise and industry policies aim to ensure the functioning of the Internal Market for goods. In doing so, it contributes to promoting the competitiveness of EU by ensuring that businesses can compete openly and fairly. Furthermore, specific actions are taken in light of competitiveness which pay particular attention to the needs of manufacturing industries and small and medium-sized enterprises (SMEs). Concerning SME's, these actions include an extensive package of measures to improve their access to finance. In addition, the policy framework also includes a broad-scale strategy to improve the innovativeness of the European economy. An overview of objectives and some selective measures for this selection of policy areas is provided below.

Single Market

Objective: to promote the proper functioning of the Internal Market, if needed through regulatory solutions; to promote a regulatory environment to enterprises favouring growth and jobs; to facilitate access to third markets; and to contribute to the global and sustainable competitiveness of the industry sectors mainly concerned by the New Approach and European Standardisation

Industrial Policy

Objective: to complement measures taken by the Member States; to contribute to a strong industrial base by creating a better policy framework for manufacturing industries; provide increased coherence and integration between policies to ensure a more powerful effect on competitiveness.

Measures:

- Seven cross-sectoral policy initiatives, which include:
 - *improving sectoral skills (2006)*
 - *an integrated European approach to industrial research and innovation (end 2005)*
- Seven sector-specific initiatives or actions, which include:
 - *setting up of a new pharmaceuticals forum (first meeting in 2006)*
 - *European Space Programme*

Promoting entrepreneurship and SMEs, Crafts, Social Economy

Objective: to ensure that Community policies and actions are beneficial to small-business and contribute to making Europe a more attractive place for setting up a company and doing business

Measures, which include:

- Improving SMEs' growth potential

Access to finance

Objective: to reduce or remove market gaps, complementing Member States' measures and working with the market, to stimulate the provision of debt and equity finance to SMEs.

Measures, which include:

- The financial instruments of the Competitiveness and Innovation Programme (CIP) help SMEs raise equity and debt finance. With a budget of over € 1 billion, the CIP financial instruments should leverage around € 30 billion of new finance for SMEs (of which the EC accounts for € 691 million). They are mainly managed by the European Investment Fund (EIF).

Innovation Policy

Objective: to encourage the emergence of "lead markets" where public authorities facilitate industry-led innovation by creating conditions for a successful market uptake of innovative products and services in a focussed way in areas such as e-health, internal security, eco-innovation and eco-construction.

Measures, which include:

- setting up a European Institute of Technology;
- knowledge transfer between universities and public research organisations and industry;
- monitoring and acting upon undue state aid from Member States.

It is clear from the overview of (a selection of) policy areas that policies on enterprises and industries accomplish their tasks in several ways: by developing expertise in economic analysis; by managing regulation in commercial sectors; and by supporting the continual scrutiny of Member States' enterprise policies. Most of these actions do not involve much spending, but the scope of policies does ensure that this budget is

considerable in comparison to the other ‘Single Market Policy’ areas (cf. Internal Market, Taxation and Customs and External Trade). In addition, the budget for Enterprise and Industry does finance specific programmes to improve the Internal Market and competitiveness; notably in relation to the Competitiveness and Innovation Programme (CIP), but also other activities.

The budget

Considering the range of activities, it is not surprising that that Enterprise and Industry policies have the largest budget when it comes to supporting Competitiveness and the Single Market. About a quarter is spent on administrative support, which is necessary for managing the vast number of policy areas that are involved. The majority of the funds, however, is spent on specific programmes; see Table 5.6.

Table 5.6 EU budget for enterprise policies - 2007

Name Budget chapter	Budget chapter	Commitments		
		Billion €	As % of	
			Budget chapter	Total budget
Administrative expenditure of Enterprise Policy area	02.01	0.12	23.14	0.10
Competitiveness, Industrial Policy, Innovation and Entrepreneurship	02.02	0.16	30.36	0.13
Internal Market for goods and sectoral policies	02.03	0.07	13.49	0.06
Cooperation – Space and Security	02.04	0.17	33.01	0.14
Enterprise	02	0.52	100	0.42

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html.

Under the budget chapter “Competitiveness, Industrial Policy, Innovation and Entrepreneurship” most funds (€ 112 million) is dedicated to the CIP to cover the operational programme Entrepreneurship and Innovation (EIP).⁶³ The CIP provides business and innovation support services delivered through a network of regional centres; promotion of entrepreneurship and innovation; support for eco-innovation; and support for policy-making that encourages entrepreneurship and innovation. Furthermore, the CIP provides access to finance for SMEs. This, however, is financed through budget title 1 (Economic and Financial Affairs); more specifically, item 01.04.04, for which the EU committed €142 million in 2007. These figures do not cover all expenditure on competitiveness and innovation. Additional funds are financed by the 7th Framework Research Programme and by cohesion funds, for example.

Under the article “Internal Market for goods and sectoral policies”, most funds go to the European Medicines Agency (€ 36 million) to which the Member States contribute an

⁶³ Besides this programme, the CIP also covers the ICT Policy support and Intelligent Energy Europe. However, these programmes fall under the budgets of Information Society and Transport and Energy respectively.

additional amount of approximately € 92 million.⁶⁴ The remainder of the budget amount allocated is spent on actions to improve the operation of the Internal Market; particularly in the fields of notification, certification, standardisation and sectoral approximation.

Although the objective of “Cooperation on Space and Security” indicates that it “*benefits citizens and the competitiveness of the European space industry*”, it is more of an R&D and a security issue;⁶⁵ the analysis of these policy areas is included in Chapters 6 and 13.

5.3 Assessment

It is not the intention of this study to subject all EU policies to the assessment procedure; but merely those policies that (substantially) involve the budget. As is clear, policy areas in the field of Competitiveness and the Single Market mostly concern regulatory actions and / or coordination. Hence, they do not demand many resources (other than for covering administrative expenditures). Below we will provide a general subsidiarity assessment of Competitiveness and Single Market policies (Section 5.3.1). Some programmes, however, do request funding from the EU budget (e.g. in relation to anti-fraud and certification and standardisation); notably in relation to competitiveness and innovation. These will be assessed in more detail in Section 5.3.2.

5.3.1 Competitiveness and Single Market policies

Normative arguments

The reasons for common Internal Market policies are overwhelming. Larger markets, resulting from the integration of economic activities and structures, create possibilities to enjoy economies of scale and scope that directly result from the internalisation of (regional) economic spillovers (Krugman et al., 2001). As such, integration improves the ability to develop comparative advantages, resulting in higher living standards, more economic growth and lower unemployment rates. Moreover, integration allows for the internalising external effects of national trade policies towards other Member States. Furthermore, there are scale economies relating to a common external policy (e.g. trade negotiations), which results from the pursuit of a common Internal Market.

To successfully form a single market, with free movement of factors, goods and services, some form of coordination with respect to taxes is required⁶⁶ and the use of a common

⁶⁴ See: http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/nmc-titleN1110C/nmc-chapterN50821037484-24/articles/index.html#N50821037514-28.

⁶⁵ See: http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/nmc-titleN1110C/nmc-chapterN50821037804-39/articles/index.html#N60581039029-7.

⁶⁶ The need for tax coordination varies with the base, but it is primarily born out of the presence of negative spillovers from national tax policies. These spillovers may be in the form of tax-related obstacles for treaty freedoms or in the form of harmful tax competition (in the form of a race to the bottom with the tax rate or in the form of erosion of the base). For example, large differences in tax bases and/or rates for company taxes or indirect taxes (VAT, excise duties, and car tax areas) could give rise to harmful tax competition or lead to obstacles for the free movement of goods and services. With respect to (direct) personal income taxes, there is less risk for inefficiencies or harmful tax competition, particularly since people are less mobile (than capital or goods). Nevertheless, in some cases action is required to safeguard the treaty freedoms and to eliminate tax obstacles to cross-border activities. This plays a role particularly while co-ordinating personal income taxes to prevent double taxation or unintentional non-taxation in cross-border situations, or to tackle cross-border tax evasion.

customs system is essential (Balassa, 1961). Particularly in the field of fraud and tax evasion, specific action is needed at central level to facilitate the exchange of information between tax and customs administrations. This follows directly from the fact that there are scale economies involved in using compatible information systems *throughout the entire Community*. Furthermore, the free movement of goods requires a common set of standards on health and safety issues; in some areas this requires particular attention (e.g. food, medicines, and electronic equipment).

Although many direct barriers to the free movement of goods, services, capital and labour are dismantled; many implicit barriers remain in particular for services and labour. One reason for this is that preferences of Member States vary with respect to the regulation of service and labour markets. Amongst other things, this depends on specific economic circumstances. This heterogeneity hampers the integration of markets via trade; and hampers foreign direct investment in services. For example, Dekker et al. (2007) and Lejour (2008) assert that diversity in, and preferences for regulation between Member States hamper further integration of other less regulated services markets. Moreover, Gual (2008) argues convincingly, for example, that these differences make it more difficult to regulate network industries at EU level.

Public choice arguments

From a public choice perspective, the Single Market should be supervised at EU level. The guarantee that markets are open and contestable can only be guaranteed if it is kept at EU level.⁶⁷ Rent-seeking is more difficult at EU level:⁶⁸ particularly when lobby groups pursue regulatory measures to protect local industries, the public support to prevent (substantial) lay-offs, and hence pressure on local politicians, may be strong.⁶⁹ Furthermore, and related to the previous issues, common rules on competition and state aid prevent governments from engaging in opportunistic behaviour (for example, when striving to be ‘national champions’).⁷⁰

⁶⁷ Compare Baumol (1967, 1972) and Mueller (2003).

⁶⁸ Compare Krueger (1974), Buchanan et al. (1980) and Tollison (1982, 1997).

⁶⁹ A live example is the current discussion in Germany, and also the Netherlands, on employment conditions and (minimum) wage levels in relation to the further liberalisation of the market for postal services.

⁷⁰ Compare Albrecht (2006) and Sinn (2003).

5.3.2 Competitiveness and Innovation

Normative

Competitiveness results from a cumulative causation process or multiplier effect which revolves around basic industries as a result of network or external economies that are driven by forward and backward linkages between firms (Krugman et al 2001).⁷¹ The size and strength of such networks of supplying companies (also called a 'cluster') determines the competitive position of a region in relation to the key industries. As a result of technological progress and integration, these external effects are becoming wider in their geographical reach (Janelle, 1969) and tend to cross borders. There are, for example, strong links between the economic clusters of the Dutch 'Randstad', the Belgian harbour of Antwerp and the German 'Ruhrgebiet'.⁷² In addition to the more uniform set of rules throughout the European Union, this process makes competitiveness a cross-border issue, resulting from cross-border spillovers and scale economies.

Competitiveness and innovation are very much related. The OECD study "The New Economy: Beyond the Hype" (2001b) stresses, amongst other things, the importance of innovation and technology diffusion for regional economic growth: the importance of innovative actions within a region for the growth and dynamics of that region becomes greater when diffusion of knowledge takes place. As economic structures become more and more intertwined across borders, and increase in size; also knowledge increasingly diffuses across borders, generating international spillovers.⁷³

However, knowledge is often produced in a local context. Braczyk et al. (1998) stress, for example, the importance of regional associations between industries, local or regional governments and educational facilities (universities) for generating and diffusing knowledge. Also small and medium-sized enterprises play a crucial role in a region's innovative capacities. Braczyk et al. (1998) implicitly argue that a balanced mixture of small and large firms would be most effective in generating and diffusing knowledge. Furthermore, cross industry innovations are likely to be improved by forward and backward linkages between industrial clusters that are often provided by small and medium-sized firms (Krugman, 2001). Local dimension of competitiveness calls for local policy formulation (involving local stakeholders).

Despite the fact that innovation and entrepreneurship is very dependent on local circumstances, involvement of the EU may be justified on the grounds of cross-border knowledge spillovers and cross-border spillovers and scale economies in regional growth. The mere fact that knowledge that is generated in, for instance, the Belgian car cluster

⁷¹ Krugman (1994) describes the concept of national competitiveness as a dangerous obsession. He states that:

- It is misleading and incorrect to make an analogy between a nation and a firm; for example, whereas an unsuccessful firm will ultimately go out of business, there is no equivalent "bottom-line" for a nation.
- Whereas firms can be seen to compete for market share and one firm's success will be at the expense of another's, the success of one country or region creates rather than destroys opportunities for others, and trade between nations is well known not to be a 'zero-sum game'.
- If competitiveness has any meaning then it is simply another way of saying productivity; growth in national living standards is essentially determined by the growth rate of productivity.

⁷² These links are extending to the regions of Paris and London - see: Dutch Ministry of Economic Affairs (1999).

⁷³ For a more elaborate discussion of innovation and the diffusion of knowledge in relation to networks and clusters, see Cowan et al. (2004) and Cowan (2006).

could hypothetically be applied in the German/French aircraft industry, which in turn affects the business for, and employment opportunities with Dutch, Swedish and British intermediate producers and suppliers; thus making competitiveness and innovation a European matter.

Notwithstanding the above, the programmes under CIP are mainly targeted at SMEs. Policies in that field typically feature lower economies of scale and in general externalities are more limited than in the case of larger enterprise (as Van der Horst et al., 2006). Whilst the primary actor involved in this area should be local (regional) and national governments, limited co-funding of the EU may warrant proper attention at the Member State level. In line with the OECD study (2001b) and Braczyk et al. (1998), EU policy should ideally be targeted at facilitating cross-border linkages between larger enterprises, research institutes and tertiary education providers. Local policies could subsequently focus on the linkages between SMEs and the larger enterprises, research institutes and tertiary education providers in that region. Although such policy would facilitate cross border spillovers, these would not necessarily lead to underspending by local governments; because in this particular case, these spillovers generate scale economies in terms of network effects.

Public choice arguments

Lack of foresight in policy-making at the national level, or wide divergence, may support a role of the EU in this area. Therefore, spending at the European level, either spending as such, or co-financing of programmes, may be a second-best argument. Moreover, policies in this area may be complementary to expenditures in other fields, such as research, regional development.

Political economy and public choice arguments in favour of decentralisation are not very strong, given the relatively limited outlays involved – which render the common pool problem ineffective. In case outlays from the FP7 are accounted for, however, the ‘honey pot’ is much larger, which possibly results in a common pool problem – although the multilateral nature of proposals provides a slight counterforce to this risk (see Chapter 6 for further analysis on R&D).

Implications for the budget

In line with the arguments above and the conclusions from the OECD report (2001b) we stress the importance of funding and focus in public research, and in promoting (cross-border) interaction between universities, firms and public laboratories. It is appropriate here to point out the strong relation between improving competitiveness and innovation and the element of ‘cooperation’ of the 7th Framework Programme for Research (FP7).⁷⁴

In theory, the spillover argument also pleads for Pigouvian subsidisation by the centre of more locally-focused programmes. In practice, however, van der Horst et al. (2006) did not find evidence of spillovers discouraging expenditures on SMEs - which would be the main focal point of such locally-oriented programmes.

⁷⁴ See Chapter 6 for a more elaborate analysis of research and development and the 7th framework programme

Furthermore, promoting innovations and dynamic capabilities of economic structures requires fostering entrepreneurship. Schumpeter (1942)⁷⁵ stressed the importance of the social and political climate in a country (or region) in promoting the freedom and creativity of entrepreneurs. Access to financial resources (particularly for SMEs), protection of intellectual property rights and the freedom and ease to start a business are important ingredients for such a climate and, given the Internal Market, the European Union may play a role in its design. These policy fields mainly involve regulatory measures, however.

5.4 Conclusions

Most of the policies for Competitiveness and the Single Market involve administrative expenditures related to regulation, coordination, consultation and information. These activities can be assessed on the basis of subsidiarity, but they typically do not involve the budget in an operational sense. Some activities (concerning anti-fraud and standardisation) may require some funding, but these requirements remain relatively small.

Concerning competitiveness and innovation, there are good arguments for budgetary involvement of the European Union. It should be supportive to local/regional/national policies, particularly since many innovations are created in local environments that have international linkages with other local environments.

Table 5.7 summarises the conclusions.

⁷⁵ As referred to in Lambooy et al. (1997).

Table 5.7 Conclusions on Competitiveness and the Single Market

Policy field	Internal Market	Tax & Customs		External Trade	Competition	Enterprise & Industry		
Activity	Regulation & co-ordination	Harmonisation & co-ordination	Anti-fraud	Regulation & negotiation	Regulation	Standardisation & certification	Competitiveness and Innovation	Regulation & co-ordination
<i>Does the following apply:</i>								
Normative test								
Economies of scale	Yes	Yes	Yes	Yes	Yes	Yes	Yes *	Yes
Externalities	Yes	Yes	Yes	Yes	Yes	Yes	Yes *	Yes
Diversity	Yes	Yes	No	Some	Yes	Some	Yes	Yes
Pro-centralisation								
Limits to system competition	Yes	Some	-	Yes	Yes	No	Yes	Yes
Second-best	-	-	Yes	Yes	-	-	Yes	-
Complementarity between policies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lobbying	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes
Pro-decentralisation								
Self interest and Accountability	No	Yes	No	No	No	No	No	No
Common pool	No	Yes	No	No	No	No	Limited	No
Lobbying	No	-	-	-	No	-	-	-
Credibility of co-operation	No	No	No	No	No	No	Sometimes	No
Proportionality ⁷⁶	No	No	Yes	No	No	Yes	Yes	No
Conclusion role for EU budget	No⁷⁷	No	Yes	No	No	Yes	Yes *	No

* When assessing the policy field competitiveness and innovation, these values should be yes. However, when assessing the programme CIP, these values are limited because of the strong SME focus of this programme.

⁷⁶ With respect to involvement of the budget (as opposed to solely regulation and/or coordination).

⁷⁷ No in terms of major outlays. Some budget is required for administrative tasks, of course. This point extends to other regulatory policies.

6 Research and Development

6.1 Policy and budget

The European Commission's expenditure on research is concentrated in the Seventh Framework Programme (FP7).⁷⁸ FP7 is an initiative under which various subsidies are granted for both public and private research. The budget of FP7 currently is € 53.3 billion for the period 2007-2013. This amounts to an average yearly budget of € 7.6 billion,⁷⁹ which is substantial when compared to € 65 billion spent on public research by the Member States of the EU15 in 2003.⁸⁰ FP7 consists of four programmes: Cooperation (€ 32.4 billion), Ideas (€ 7.5 billion), People (€ 4.7 billion) and Capacities (€ 4.2 billion). In addition, FP7 also has a budget for the Joint Research Centre (JRC) amounting to € 1.8 billion and a budget for research on nuclear energy (EURATOM) of € 2.8 billion.

Table 6.1 Commitments of the 7th Framework Programme 2007-2013 (€ billion)

Categories of the 7th Framework Programme 2007-2013	Commitment
Cooperation	32.4
Ideas	7.5
People	4.7
Capacities	4.2
Joint Research Centre	1.8
EURATOM	2.8
Total pre-allocated	53.3

Cooperation is subdivided into:

1. Health,
2. Food, agriculture and fisheries, and biotechnology,
3. Nano sciences, nanotechnologies, materials and new production technologies,
4. Energy,
5. Environment (including climate change),
6. Socioeconomic sciences and the humanities,
7. Transport (including aeronautics).

Capacities consists of

1. Research infrastructures,

⁷⁸ FP7 actually consists of two framework programmes: the "7th Framework Programme of the European Community for Research, Technological Development and Demonstration Activities" and the "7th Framework Programme of the European Atomic Energy Community (EURATOM) for Nuclear Research and Training Activities".

⁷⁹ Although the budget for 2007 is much lower because the programme is just established, see Table 6.2.

⁸⁰ Unfortunately we lack data on the current spending on public research by the Member States comprising EU27

2. Research to the benefit of SMEs,
3. Regions of knowledge,
4. Research potential,
5. Science in societies,
6. International cooperation.

The activities of EURATOM can be split into fusion energy, nuclear fission, and radiation protection.

For the year 2007, the EU budget reserved about € 3.9 billion for R&D, which is less than the average yearly budget for FP7. This could probably be explained by the start-up phase of the new Framework Programme. In 2007, R&D expenditures cover 3 to 4% of the EU budget. This budget share will increase during the time period covered by the FP7 (2007-2013).

Table 6.2 2007 Commitments budget categories for Research and Direct Research

Name Title/Budget chapter	Title/Budget chapter	Commitments		
		Billion €	As % of	
			Title/Budget chapter	Total budget
Direct Research	10	0.35	8.91	0.28
Administrative expenditure of Direct Research Policy area	10.01	0.28	7.25	0.23
Directly-financed research operational appropriations — FP7	10.02	0.03	0.74	0.02
Directly-financed research operational appropriations — FP7 — EURATOM	10.03	0.01	0.23	0.01
Historical liabilities resulting from nuclear activities by JRC pursuant to the EURATOM	10.05	0.03	0.69	0.02
Research	8	3.56	91.09	2.87
Administrative expenditure of Research Policy area	08.01	0.24	6.08	0.19
Cooperation	08.02-08.09	2.03	51.80	1.63
Ideas	08.10	0.26	6.67	0.21
People	08.11	0.43	10.99	0.35
Capacities	08.12-08.18	0.35	8.84	0.28
EURATOM	08.19-08.20	0.26	6.72	0.21
R&D	8 & 10	3.91	100	3.2

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html.

The Commission spends much more money on Research and Development than the € 3.9 billion in 2007, because Table 6.2 does not include research financed by the Structural and Cohesion Funds⁸¹ and by the various DGs on their specific policy area.⁸² The overwhelming part of the budget on (direct) research is allocated to FP7 (all title 8 budget chapters). The administrative expenditures on direct policy (budget chapter 10.01) are mainly allocated to research staff and management (e.g. the Joint Research Centre).

6.2 Assessment

6.2.1 General assessment

As will be explained below, the budget of FP7 is allocated in a variety of ways, and has a multitude of goals. Arguably, the most prominent goal of FP7 is the stimulation of public and private research. With respect to this goal, there are theoretical and empirical arguments in favour of European policy (Hoeller et al., 1996; Van der Horst et al., 2006). To start with, some research projects are simply too large and risky to be funded by a single country. Multilateral cooperation then makes research projects possible that would not otherwise have been undertaken. A concrete example of a large international research project is the ITER-project on nuclear fusion. In addition, European centralisation of research can foster competition between researchers, induce specialisation among them and reduce the risk of “reinventing the wheel”. Van der Horst et al. (2006) present empirical indications that larger countries tend to spend relatively more on public R&D and on subsidies for private R&D which could be caused by economies of scale in larger countries.

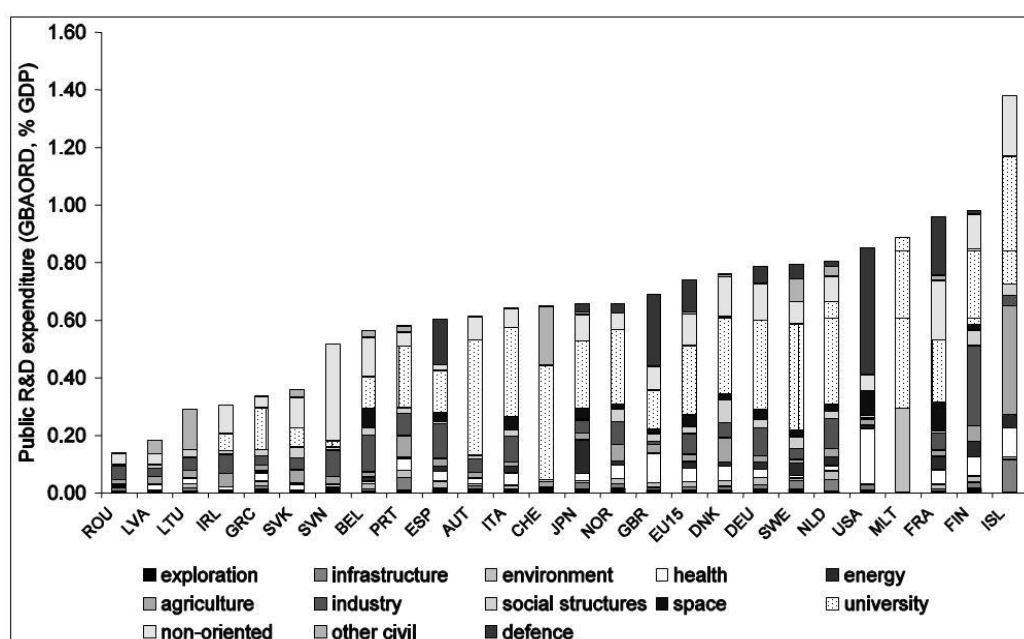
External effects are important by-products of research. Knowledge, the product of research, is non-rival and often also non-excludable. For the same reasons as the non-rivalry and non-excludability of knowledge leads to market failure, it may result in government failure if knowledge diffuses freely across borders. In this situation, a part of a nation's expenditure ‘leaks away’ to other countries and gives national governments an incentive to ‘free-ride’ on the research funded abroad (Pelkmans, 2006b). Keller (2004) provides ample evidence of positive external effects of R&D to other countries often channelled by trade and foreign direct investment. It has also been empirically established that the importance of these R&D spillovers decreases significantly if distance increases (Keller, 2002). However, distances are relatively small within Europe compared to the distances within the US or Japan; and the R&D spillovers are therefore significant. European centralisation of public expenditure on research can reduce this coordination problem. Van der Horst et al. (2006) show that the openness of a country tends to be negatively related to government expenditure on public and private research. This suggests that the free-rider problem caused by knowledge diffusion is a real-world problem.

⁸¹ For the budget period 2007-2013 € 62 billion of Cohesion Policy is allocated for R&D and innovation in the qualifying regions. In addition, about € 1.2 billion on research on ICT, associated with the i2010 programme under DG INFSO has to be mentioned here.

⁸² An example is Article 02 04 01 — Security and Space Research - with a 2007 commitment of € 171.7 million.

Despite the likely presence of scale economies and externalities, European centralisation of public expenditure on research may also have drawbacks. The data on the objectives of publicly-funded research, as well as the literature on national systems of innovation suggest that heterogeneity among the members of the EU is large (Van der Horst et al., 2006). In particular, there is substantial heterogeneity in the amounts that Member States allocate to research (Archibugi and Coco, 2005); and in socio-economic objectives (Van der Horst et al., 2006). Moreover, this heterogeneity has increased with the entry of ten new Member States in 2004 (Falk et al., 2008). Figure 6.1 provides some indications on the relative importance of public R & D spending and the priorities in most Member States of the EU and in some of its main competitors.

Figure 6.1 Heterogeneity in socio-economic objectives of public R&D expenditures (2000)



Source: Eurostat; The category "university" does not correspond to the category "higher education".

It should be noted, however, that differences in the amounts allocated to research may not necessarily imply differences in preferences; it may also indicate a certain amount of under-spending by Member States, resulting from the presence of spillovers.

After these general normative remarks, the following section will go into the details of the programmes that are part of FP7; and outline the political-economic issues specific to each programme. A summary of the assessment can be found in the paragraph 6.3 Conclusions and Table 6.3.

6.2.2 Assessment of programmes

EURATOM and Joint Research Centre

EURATOM is financed through a specific research framework programme and the Joint Research Centre (JRC) has a special status within FP7. As such EURATOM and JRC are not considered to be 'programmes' within FP7. EURATOM is the EU's oldest form of cooperation on research. The European Atomic Energy Community was founded in 1957,

at the same time as the founding of the European Economic Community (EEC). EURATOM is the textbook example of a research project with increasing returns to scale. Given the prevalence of secrecy in atomic research, externalities due to knowledge diffusion are not likely to be a reason for European centralisation. EURATOM has managed to survive despite the declining popularity of nuclear energy in some Member States.

The Joint Research Centre (JRC) is the European Commission's own research branch. The benefits of the JRC are not so much to be found in the normative part of the subsidiarity test – although some economies of scale might be present. Instead, the JRC assists in the development, implementation and monitoring of EU policies, while being independent from individual Member States.

Cooperation

The programme Cooperation receives the bulk of the FP7 budget. The objective of this programme is “supporting the whole range of research actions carried out in transnational cooperation” (European Commission, 2006:175). The programme covers collaborative research in eight thematic areas. All kinds of transnational consortia – public, private and public-private – can apply for subsidies for research activities. Support for transnational cooperation will be implemented through Collaborative Research, Joint Technology Initiatives, and coordination of non-community (national and inter-governmental) research programmes and international cooperation.

Collaborative Research provides funding for transnational collaboration and receives the bulk of the programme's budget. Proposals for projects under the sub-programme Collaborative Research must be made by at least three legal entities, no two of which are established in the same Member State. In this way, an incentive is offered for transnational cooperation. The European Technology Platforms (ETPs) should give the private sector more influence over the priorities of FP7. These ETPs consist of business-leaders who formulate Strategic Research Agendas that should give a direction to the allocation of funds. If an ETP is deemed to be of strategic importance for the EU, it can be turned into a Joint Technology Initiative. Joint Technology Initiatives provide funding for long-term public-private research projects based on the Strategic Research Agendas.

Coordination of National Research Programmes offers possibilities for multilateral cooperation, joint implementation of public policies, and could prevent a costly duplication of research efforts by the Member States. However, the primary objective of this programme is to promote scientific and economic integration of the Member States, *leading to increased competition between research institutes and between companies, and to a better diffusion of knowledge across-borders*. This objective clearly refers to an externality: the reduction of barriers between Member States. As there are a great number of areas covered by these programmes, heterogeneity of Member States is not a likely issue, here. Given the size of the programme and the diversity of research fields and actors, it might be problematic to guarantee the quality of the review process. Moreover, the large budgets are ‘honey pots’, which possibly results in a common-pool problem – although the multilateral nature of proposals provides a slight counterforce to this risk.

Ideas

The programme Ideas establishes a European Research Council (ERC). The ERC should fund projects proposed by researchers, similar to the National Science Foundation in the United States. Formally, the objective of this programme is “supporting ‘investigator-driven’ research carried out across all fields by individual national or transnational teams in competition at the European level”. Only one legal entity is required for funding.

The scope for economies of scale is large in this programme. By deciding centrally which proposals receive funding, the risk of duplication of research is limited; and it is less costly to employ the experts needed for high-quality assessment of project proposals. Centralisation also avoids the negative effects of cross-border externalities and limited systems competition: the nationality and country of residence of the researchers submitting a proposal becomes less relevant for the chances of obtaining a grant. In a decentralised system, an Austrian working in Italy is unlikely to get a German grant. In addition, the risk of ‘personalism’ can be reduced if the experts evaluating a proposal come from another country than the persons submitting it. The ‘second-best’ argument, that centralisation promotes competition and diffusion of knowledge, also applies to this programme.

People

The programme People is meant to financially support individual researchers in the EU. The Marie Curie Fellowships are an example of what is covered by the programme. The objectives are to improve both the quantity and quality of researchers, and to make researchers more mobile in the EU. The principal difference with the programme “Ideas” is that less expertise is required in order to evaluate whether a person is entitled to a grant or not. Hence, economies of scale are less likely to occur. The risk of a common-pool problem is limited as long as the programme stimulates the mobility of researchers. Furthermore, centralisation prevents a home-bias that would likely result from financing by Member States.

Capacities

The programme Capacities comprises a list of areas that are to be supported: research infrastructures, research for the benefit of SMEs, support for regional, research-driven clusters, research potential of convergence regions, “science in society”, and international cooperation. In terms of expenditure, the emphasis lies on support for research infrastructures and SMEs.

In general, support for research infrastructures can be expected to have economies of scale, just like EURATOM. It is, however, important to consider whether an ‘infrastructure’ has EU-wide relevance. For example, a large telescope, like the proposed Extremely Large Telescope (ELT), is a project that will benefit research worldwide and is too costly to be funded by a single Member State. In this case, the benefits of centralisation (though not necessarily at EU level) are clear. For other initiatives labelled ‘infrastructure’, the case for centralisation might be less clear. For example, it is difficult to see why the Commission should spend money on ICT infrastructure for researchers as in the “e-Infrastructure” initiative. The provision of ICT infrastructure to researchers is the primary responsibility of research institutes and the private companies employing them. The only likely exceptions are supercomputers and highly-specialised software.

When public research institutes do not receive sufficient funding from their governments, funding by the EU might be a second-best solution. However, knowing the EU will bail them out encourages underspending by Member States.

With regard to the funding of innovative activities by SMEs, Van der Horst et al., (2006) provide empirical evidence that there are no scale economies or policy externalities discouraging expenditures on SMEs. Larger countries do not spend more on SMEs than small countries; while open economies tend to spend *even more* on SMEs than closed economies. In addition, the heterogeneity among Member States regarding policies aimed at SMEs is probably substantial. While the normative part of the subsidiarity test aims to keep SME policy decentralised, it can be argued that national governments are in a subsidy-race in order to protect domestic SMEs from foreign competition. If this indeed is the case, centralisation of expenditure at the European level could help to promote a level playing field for SMEs. However, this seems a rather strong measure. The first best solution would be to apply strict rules on state aid.

The remaining four themes of the programme “Capacities” (*regions, research potential and science in society*) do not appear to qualify for centralisation according to normative subsidiarity principles. This is simply because there are no substantial external effects, nor are there economies of scale. Moreover, there is heterogeneity between Member States/regions. EU financing is likely to be characterised by a common pool problem that would result in over-spending.

6.3 Conclusions

The overall conclusion is that the role of the EU in providing funding for R&D is appropriate. In many cases, there are economies of scale in centralising R&D funding, such as EURATOM, JRC, Cooperation, Ideas and Capacities regarding infrastructure. In addition, the programmes Cooperation, Ideas, and People internalise spillovers. Of course these benefits of centralisation have to be weighed against the diversity argument. However, as long as the Member States themselves have substantial R&D budgets, these country-specifics can be addressed. Given the economies of scale and externalities involved, it could even be argued in favour of shifting a part of the national R&D budget to the EU level for these specific categories. Examples of this include sectors and/or categories such as defence, space industry, exploration, and infrastructure - where indivisibilities could be high; implying substantial economies of scale. To the extent that R&D funding is directed to SMEs or specific regions, the role of the EU is less obvious. Economies of scale do not prevail, and externalities of national policies are also not present.

Table 6.3 summarises the conclusions.

Table 6.3 Conclusions on Research & Development

	EURATOM	JRC	Cooperation	Ideas	People	Capacities		
						Infrastructure	SMEs	others
<i>Does the following apply</i>								
Normative test								
Economies of scale	Yes	Some	Yes	Yes	No	Yes	No	No
Externalities	No	No	Yes	Yes	Yes	No	No	No
Diversity	Yes	No	No	No	No	No	Yes	Yes
Pro-centralisation								
Limits to system competition	No		Yes	Yes	Yes	No	Yes	
Second-best	No		Yes	Yes	Yes	No	Yes	
Complementarity between policies	No	Yes						
Lobbying	No		No	No	No	No	No	
Pro-decentralisation								
Self-interest and accountability	No	No	Yes					
Common pool	No	No	Yes	No	No	Yes	Yes	Yes
Lobbying		No						
Credibility of co-operation	No	No	No	No	No	No	No	No
Proportionality	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Conclusion	Yes	Yes	Yes	Yes	Yes	Yes	No	No

Consequences for the budget

All in all, research seems to be a textbook example of a budgetary role for the EU. Not for nothing is Research and Development one of the largest policy areas in the budget (not accounting for Agriculture and Cohesion Policy), and is growing.

7 Education and Culture

7.1 Policy and budget

The budget on Education and Culture (€ 1.2 billion was allocated in 2007) is subdivided into four categories: lifelong learning and multilingualism, cultural cooperation, youth and sport (or more specifically ‘youth in action’), and European citizenship. The bulk of the expenditure, € 0.9 billion, is reserved for lifelong learning and multilingualism. These EU expenditures on education barely constituted 1% of the budget in 2007; or about 0.01% of Europe’s GDP. This is quite distinct from the Member States budgets: they spent € 539.8 billion on education in 2004, which is about 5% of GDP (World Bank, 2007). From a budgetary perspective, the role of the EU in the field of education is therefore limited.

Table 7.1 2007 EU budgetary commitments in Education and Culture

Name Budget chapter/Article	Budget chapter / Article	Commitments		
		Billion €	As % of	
			Budget chapter / Article	Total budget
Administrative expenditure of Education and Culture Policy area	15.01	0.10	8.32	0.08
Lifelong learning, including multilingualism	15.02	0.93	75.80	0.75
<i>lifelong learning</i>	15.02.22	0.82	67.45	0.66
<i>Erasmus Mundus</i>	15.02.02	0.06	4.55	0.04
<i>European Centre for the Development of Vocational Training</i>	15.02.25	0.02	1.31	0.01
<i>European Training Foundation</i>	15.02.27	0.02	1.57	0.02
<i>pilot project Cooperation technology institutes</i>	15.02.29	0.01	0.41	0.00
Developing cultural cooperation in Europe	15.04	0.05	3.85	0.04
Encouraging and promoting cooperation in the field of youth and sport	15.05	0.11	9.40	0.09
Fostering European citizenship	15.06	0.03	2.64	0.03
Education and Culture	15	1.22	100	0.98

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html.

Education and training

The Commission's programme on lifelong learning consists of six programmes:

- Comenius (primary and secondary education), 13% of the budget,
- Erasmus (tertiary education), 40% of the budget,
- Grundtvig (adult education), 4% of the budget,
- Leonardo Da Vinci (vocational education and training), 25% of the budget,
- A transversal programme complementing these four programmes above,
- Jean Monnet programme, 16% of the budget.

The objectives and content of these programmes is described below.

Covering pre-schools through to upper secondary schools, the Comenius programme seeks to develop understanding of and between various European cultures through exchanges and co-operation between schools in different countries. Comenius aims to boost the quality of primary and secondary education, strengthen its European dimension and promote mobility, language learning and greater inclusion. At least 80% of the budget is intended for mobility and partnerships.

Erasmus emphasises student and staff mobility and European co-operation involving higher education institutions and other key players in the knowledge-based economy. It supports the creation of a European Higher Education Area (EHEA) through increased mobility. Over 1.5 million students have participated so far; with a goal of reaching 3 million by 2013. Erasmus supports actions in the fields of mobility (periods of study or placement abroad), European projects and networks.

The Leonardo da Vinci programme focuses on the teaching and training needs of those involved in vocational education and training. It aims to establish and bolster the competitiveness of the European labour market by helping European citizens to acquire new skills, knowledge and qualifications and have them recognised across borders. Leonardo da Vinci funds a wide-range of initiatives: notably transnational mobility, European projects focusing on the development, or the transfer of innovation and networks. At least 60% of the budget is allocated to mobility and partnerships.

The Grundtvig programme seeks to respond to the challenges raised by the necessity to update knowledge and to provide adults with pathways to improve their know-how and competences as they progress through life - so that they can adapt to changes in the labour market and society. Grundtvig focuses on all forms of non-vocational adult and continuing education. At least 55% of the budget is intended for mobility and partnerships.

The Jean Monnet programme promotes the teaching of, and research into European integration as a subject at universities. It supports certain key institutions and associations active in the field and stimulates universities throughout the world to explain the EU's model for peaceful coexistence and integration, as well as EU policies and external action. The programme funds Jean Monnet chairs, centres of excellence and teaching modules, as well as information and research activities.

From the description of the lifelong learning programmes it can be concluded that two main objectives of this part of the EU budget are: (i) improving the quality of (higher) education; and (ii) promoting interaction between people from different Member States. Below, our assessment procedure is applied to two broad categories: Education (comprising lifelong learning and multilingualism) in Section 7.2 and Culture (comprising cultural cooperation, youth and sport, and European citizenship) in Section 7.3.

Culture

The budget chapter '*Developing cultural cooperation in Europe*' mainly consists of the new budget article '*Culture Programme (2007 to 2013)*'. It supports cultural cooperation projects in all artistic and cultural fields (performing arts, plastics and visual arts, literature, heritage, cultural history). Furthermore, it specifically focuses on initiatives to preserve the memory of the victims of former concentration camps and other large-scale sites of human suffering and extermination. Moreover, it supports analysis, collection and dissemination of information in the field of cultural cooperation.

The budget for 'Youth and sport' mainly finances the 'Youth in Action' programme which covers the following measures:

- *Youth for Europe*: aims to support exchanges between young people in order to increase their mobility and youth initiatives, projects and activities concerning participation in democratic life. The programme aims to develop young people's citizenship and mutual understanding.
- *European Voluntary Service*: the aim of this action is to boost young people's participation in various forms of voluntary activities, both within and outside the European Union.
- *Youth of the World*: aims to support projects with partner countries, in particular exchanges of young people and youth workers, and to support initiatives that reinforce young people's mutual understanding, sense of solidarity and the development of cooperation in the field of youth and civil society in these countries.
- *Youth workers and support systems*: aims to support bodies active at the European level in the field of youth, in particular the operation of youth NGOs, their networking, the exchange, training and networking of youth workers, encouraging innovation and quality in the action undertaken, providing young people with information and developing the structures and activities needed for the programme to meet these goals.
- *Support for policy cooperation*: aims to organise dialogue between the various actors in the field of youth, particularly the young people themselves, youth workers and policy-makers; to contribute to the development of policy cooperation in the youth field and to take the necessary steps and establish the networks necessary to better understand youth.

With respect to 'Fostering European Citizenship', the majority of the budget is spent on the 'Europe for Citizens' programme. The budget covers the following measures:

- Active citizens for Europe, consisting of:
 - town twinning,
 - citizens' projects and support measures;
- Active civil society in Europe, consisting of:

- structural support for European public policy research organisations (think-tanks),
- structural support for civil-society organisations at European level, etc.,
- support for projects initiated by civil-society organisations;
- Together for Europe, consisting of:
 - high-visibility events such as commemorations, awards and Europe-wide conferences, etc.,
 - studies, surveys and opinion polls,
 - information and dissemination tools.

Some of the *Youth in Action* measures (notably European Voluntary Service, Youth of the World, and Youth workers and support systems) seem to serve paternalistic objectives and complement Member State policies. Other measures and the other programmes typically stimulate non-economic cross-border activities, which can be considered as complementing Internal Market policy.

7.2 Assessment

7.2.1 Education

Normative arguments

The literature on the subsidiarity of education exclusively deals with tertiary education, universities in particular. With respect to primary and secondary education, it is generally accepted and even not discussed that the Member State or regions are the appropriate level of government intervention. This already explains the large differences in the budgets of the EU and Member States in the education sector.

With the exception of very small countries like Luxembourg, the optimal size of schools and universities is generally not constrained by the size of the country. In this sense, there are no economies of scale that warrant centralisation of education at the European level. However, Ederveen and Thissen (2008) and Aghion et al., (2007) hypothesise that the size of a country might be of importance for the quality of its education. They test this hypothesis by comparing the number of top 500 universities to the population of a country. As the Scandinavian countries and Switzerland have highest scores in the quality of universities, they conclude that there is no relation between scale and quality.

Regarding cross-border externalities, Ederveen and Thissen (2008) discuss three possible channels. Firstly, student mobility might lead to better education because it allows the grouping of students of similar capability. They suggest that this could be an argument in favour of European top universities. However, they conclude that the empirical evidence for this hypothesis is weak; probably because student mobility is quite low. Secondly, they consider the possibility that variation in tuition fees could lead to free-riding by students. The third type of cross-border externality is that people who have studied abroad are more inclined to pursue a career abroad, as well. This last hypothesis is supported by Oosterbeek and Webbink (2006) who estimate that students who studied abroad are 15 to 18 percent more likely to live abroad. Given the low mobility of students in the EU, Ederveen and Thissen (2008) conclude that cross-border externalities are likely

to be limited.⁸³ Nevertheless, they do find that there is evidence that student mobility is a precursor of labour migration.

The heterogeneity in the quality of universities is substantial. In particular, Ederveen and Thissen (2008) observe that while quality in the Scandinavian countries and Switzerland is high; it is low in the southern European countries and the new Member States. This observation, added to the virtual absence of evidence for scale economies and externalities, suggests that the normative part of the subsidiarity test rejects the need for a European education policy.

While Ederveen and Thissen (2008) focus on higher (tertiary) education, Brokamp (2007) concentrates on vocational education and training (VET). He arrives at similar conclusions: no economies of scale, no external effects, and significant heterogeneity. However, the lack of externalities is also due to limited mobility. Student mobility for VET is lower than for tertiary education. Based on the normative arguments, tertiary education is also almost exclusively a Member State activity in terms of the budget. For some specific groups, such as PhD students, the situation could be different. These students are much more internationally mobile. However, this is a fairly small group compared to all tertiary students and will therefore not be treated separately.

Public choice and other arguments

However, several authors point to a role for the EU in stimulating competition between universities in Europe – which is a ‘second-best’ type of argument (Ederveen et al., 2008). For universities to be able to compete with each other, students have to be mobile across Europe. The Bologna Agreement provides a first step in this direction by introducing the Bachelor-Master system in Europe. As a result employers will find it easier to compare grades from different countries. Another, rather trivial, requirement for student mobility is that foreign students are able to understand the language in which courses are being taught. Brokamp (2007) argues that this is less useful for VET. Mobility is much lower, and so is the case for indirect human capital spillovers. Students prefer to study not too far from home; for VET this is even stronger than for tertiary education. Brokamp (ibid.) argues for a very limited role of the EU for increasing transparency and stimulating student mobility.

A more fundamental reason for poor student mobility is that both students and universities are currently funded by their national governments. Gérard (2007, 2008) proposes an EU voucher system for students, letting national governments support their students irrespective of the country where they choose to study.⁸⁴ Jacobs and van der Ploeg (2006) argue in favour of a complete liberalisation of higher education, in which income-contingent student loans are the only instrument for achieving equity. Van der

⁸³ Although in some cases there may be some externalities. For example, some Germans study physiotherapy in the Netherlands and Belgium as there is no official educational course in this discipline in Germany. Furthermore, many Germans who failed to get into medicine training because of the *numerus fixus* (restricted access to student places) seek education in Austria. Although these are clear spillovers, these are not externalities in the sense that competitive market forces (e.g. systems competition) fail to incorporate these. As long as there is no congestion in enrolment, the spillovers are only beneficial.

⁸⁴ Notice that this suggestion of EU voucher does not need allocation of the competence to the EU, but is compatible with a network of bilateral arrangements or a multi-lateral arrangement. Then the role of the EU might be to co-ordinate, or facilitate, not to ‘spend’.

Ploeg and Veugelers (2008) suggest that the EU can facilitate this process by supporting mutual policy learning by Member States and their higher education infrastructures. In addition, they propose that the EU should further promote transnational recognition of qualifications and the mobility of students and teachers. Aghion et al., (2007) also propose reforms of higher education because of the relatively poor performance of European universities. They plead for larger budgets and more autonomy for the universities in the European countries, but do not argue for a particular role for the EU. In that respect, their conclusions differ from Jacobs and Van der Ploeg (2006).

7.2.2 Culture

Cultural diversity of the EU is large. The variety in cultures can be interpreted as an asset. The diversity in itself is valuable and people could learn from different cultures. Moreover it also increases the variety of goods and services within Europe, which is valuable. However, variety in culture could increase the costs of economic transactions and cooperation (see Dekker et al., 2006). Moreover, it can sometimes be difficult to reach an agreement on a single European policy – even if the benefits of such a policy for the EU as a whole are clear. EU policies that aim to make people more conscious of cultural differences and resemblances, as well as policies that make people more familiar with European governance may prove to be important for the legitimacy of the process of European integration in the long-term. Cultural cooperation and European citizenship can be important in overcoming externalities. Differences in culture reduce directly or indirectly the free movements of goods, services capital and labour. Culture can act as a ‘barrier’ for full market integration. From that point of view, these programmes are useful; not in the sense that they should minimise cultural differences, but instead that they minimise the hampering effect through better mutual understanding. The EU is the right level to implement and finance such programmes; implementation by Member States would create possibilities to free-ride. Awareness and understanding of cultural differences and resemblances is a kind of public good. Budgetary commitments by the EU guarantee that every Member State contributes at least indirectly.

On the grounds of the above analysis, the measures ‘Youth for Europe’ and ‘Support for policy cooperation’ of the programme ‘*Youth in Action*’ qualifies for EU financing. An important item is to promote mobility, cultural awareness and international cooperation. The other programmes could also possibly contribute to the working of the Internal Market.

The other measures (European Voluntary Service, Youth of the World, and youth workers and support systems) of the *Youth in Action* programme have a more paternalistic approach, and complement the policies of the Member States. It is not quite clear what the value added of the European Union is with respect to these. Notably, cultural diversity in Europe would argue in favour of entirely decentralised financing of these programmes.

7.3 Conclusions

Education

Given the diversity in preferences and circumstances, lack of economies of scale and externalities, Member States seem to be the appropriate assignment level for education and culture in general.

For higher (tertiary) education this could be different. Although there are no convincing normative arguments in the literature arguing in favour of a substantial EU budget on education, arguments related to the complementarity of policies and second-best solutions can underpin expenditures in tertiary education. These arguments relate in particular to the promotion of international cooperation and student mobility. The latter, because it is a precursor to labour migration, and thus contributes to the completion of the Internal Market. Furthermore, it may improve competition between universities. Because most of the EU budget on lifelong learning is reserved for these goals, budget activities of the EU in this area are justified. However, an examination of the goals and operational tools of these programmes suggests that the two goals of these learning programmes (improving skills and mobility) cannot easily be distinguished within the instruments of the sub-programmes. This suggests that there is scope for the Member States using instruments aimed at improving skills in these programmes without any link to mobility or partnerships.

Culture

Similar arguments apply to the promotion of cultural cooperation and the promotion of EU citizenship: to promote international cooperation and (labour) mobility. Some of the youth programmes have similar objectives, but for other measures of the *Youth in Action* programme (European Voluntary Service, Youth of the World, and youth workers and support systems) the value added of EU spending seems absent.

Table 7.2 summarises the assessment.

Table 7.2 Conclusions on Education and Culture

EU programmes	Lifelong learning and multilingualism with the aim of mobility and partnerships	Cultural cooperation, European citizenship	Youth and sport
<i>Does the following apply:</i>			
Normative test			
Economies of scale	No	Yes	Yes/No
Externalities	No	Yes	No
Diversity	Yes	Yes	Yes
Pro-centralisation			
Limits to system competition	No	No	No
Second-best	Yes	Yes	Yes
Complementarity between policies	Yes	Yes	Yes
Lobbying	No	No	No
Pro-decentralisation			
Self interest and Accountability	No	No	No
Common pool	Yes	Yes	Yes
Lobbying			No
Credibility of co-operation	No	No	No
Proportionality	Yes	Yes	No
Conclusions for EU budget	Yes	Yes	Limited

Consequences for the budget

Currently, student mobility is low. Yet, low mobility may originate from limited transparency or various national institutions that limit competition and investment in higher education. In that sense, EU initiatives to reduce these barriers may generate positive feedback. They increase economies of scale and externalities; and thus ask for further EU involvement. Since most of the programmes that come under lifelong learning also have the specific aim of promoting mobility and international partnerships, it makes sense that these are financed from the EU budget.

Also in the area of Cultural cooperation and promotion of EU citizenship the EU budget is involved. EU spending on youth and sport could also be defended from a subsidiarity perspective, as long as it serves mobility and international cooperation. Parts of these activities have other goals which can better be financed by the Member States.

8 Environment

8.1 Policy and budget

Environmental policy has been on the rise in recent years. Renewed attention on environmental problems demands appropriate policies.⁸⁵ A fundamental reason to ask for policy intervention in the realm of environmental issues is the nature of the externalities involved. Without government intervention, consumers and firms generally do not account for the real costs for the environment in their economic behaviour. Government intervention could consist of regulation or the use of taxes and subsidies. Most governments use both instruments. The relevant questions for the role of the EU budget are whether national policy interventions lead to external effects on other countries and / or whether there are economies of scale in acting together with regard to environmental policies. The answers to these questions differ for various environmental goods. In particular, the difference between global, European and local environmental goods is crucial (see also Alesina et al., 2002; and Hoeller et al., 1996); this distinction is also reflected in the European Union's environmental policies. Moreover, within the category of local environmental goods, a distinction could also be made between sub-national and national environmental goods. But this is less relevant for assessing whether the EU should be involved.

8.1.1 EU environmental policies

The sixth Community Environment Action Plan (EAP) for the period 2002-2012 outlines four priority areas (themes): combating climate change; protecting nature and biodiversity; preserving the environment, health, and quality of life; and preserving natural resources (European Commission, 2001b, 2002a). In order to address these areas, the Commission specifies thematic strategies on soil and marine environment (biodiversity); on air pollution, pesticides and urban environment (environment, health and quality of life); and on natural resources and waste recycling (natural resources and waste). Moreover, the strategy for climate control has both a sectoral and an international approach - with a clear focus on reducing greenhouse gasses.

⁸⁵ In the period 1970 to 2000, the intensity of environmental regulation has increased in the EU: from 29 regulations, directives and decisions in the period 1971 to 1975 to 255 in the period 1996 to 2000 (Alesina et al., 2001). However, in comparison to the totality of EU regulation, this only equated to 1.65% of all regulations in 2000. The treaties do also not address environmental issues extensively.

The following table provides an overview of objectives, thematic strategies and corresponding measures/programmes per defined priority area.

Table 8.1 Policy framework for environmental policies (the sixth Environmental Action Plan – EAP)

Local / Global	Objectives	Thematic Strategies	Measures / Programmes	
Mostly local	Nature and biodiversity: Protecting, conserving, restoring and developing the functioning of natural systems, natural habitats, wild flora and fauna with the aim of halting desertification and the loss of biodiversity, including diversity of genetic resources	- Soil - Marine environment	- Studies, impact assessments, research - Exchange of prevention practices and tools - Promote integration of biodiversity considerations into other policies	- Publicity campaigns, awareness-raising and training - Establishing Natura 2000 network
	Natural resources and waste: Ensure sustainable management and use of natural resources and waste	- Natural resources - Waste recycling	- Awareness-raising - Measures aimed at ensuring source separation, the collection and recycling of priority waste streams - Material flow analysis	- Market-based and economic instruments - Programmes of best practice and indicators of resource efficiency - Set of quantitative and qualitative reduction targets
	Environment and health and quality of life: Contributing to a high level of life and social well being for citizens by providing an environment where the level of pollution does not give rise to harmful effects on human health and the environment and by encouraging a sustainable urban development	- Air pollution - Pesticides - Urban development	- Review and updating of national emission ceilings - Better systems for gathering information, modelling and forecasting - Montreal Protocol (ozone layer) - Transport demand reduction and shifts to less noisy modes of transport - Promotion of technical measures and of sustainable transport planning	- Research and international coordination of research - Risk assessment, monitoring and risk management - Awareness-raising - etc.
Global	Climate change: Stabilising greenhouse gas concentrations	- Reduction of greenhouse gases (energy sector; transport sector; industrial production) - international commitments	- Kyoto Protocol - Capacity-building and eco-efficiency practices - Phasing out of subsidies - Monitoring	- Public campaigns, awareness-raising and training - Energy taxation - Research - Emissions trading

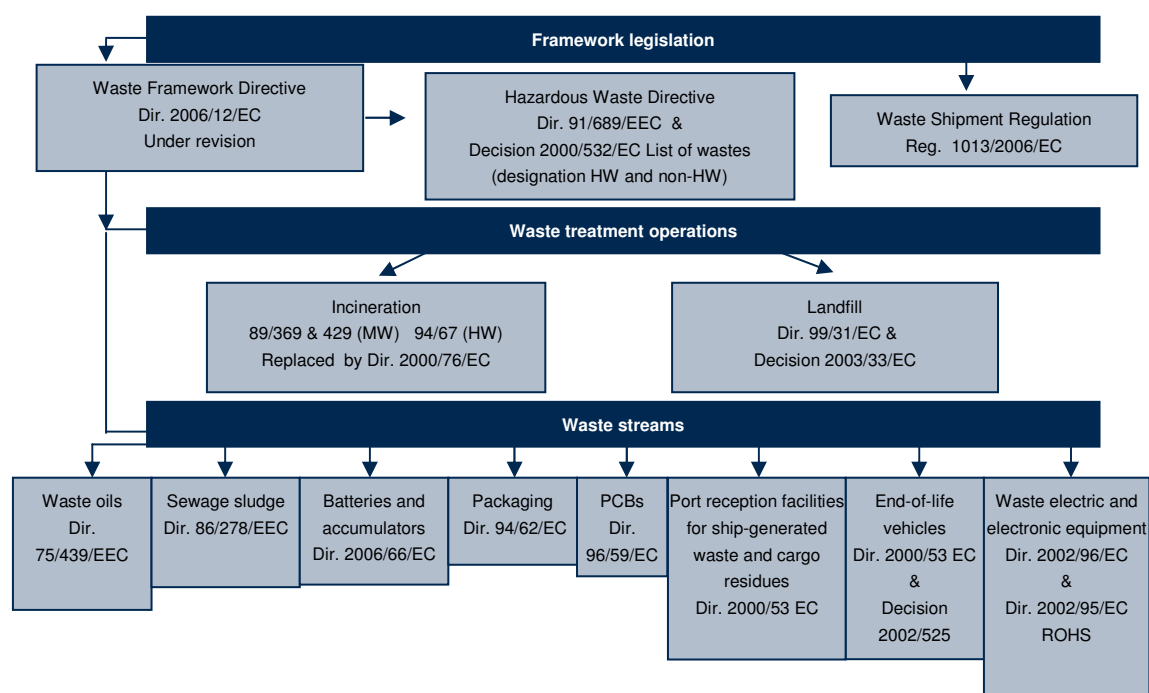
Source: http://eur-lex.europa.eu/LexUriServ/site/en/oj/2002/l_242/l_24220020910en00010015.pdf.

Local/European spillovers

Concerning *nature and biodiversity*, the 6th EAP mainly relies on production and the exchange of information. In addition, the programme is concerned with promotion and awareness-raising. For these purposes, the Natura 2000 ecological network is an essential tool. The network coordinates the activities aimed at preserving so-called Special Protection Areas (SPAs) for birds and Special Areas of Conservation (SACs) to be designated for other species and for habitats. Although these issues can be regarded as European environmental issues, the birds Directive deals with a global issue.

Besides measures for the production and exchange of information, the 6th EAP also aims to regulate *natural resources and waste*. This has, for example, resulted in an extensive framework of waste legislation – see Figure 8.1. Such frameworks also exist for water management. In addition to regulation and information, the objectives are addressed with specific quantitative and qualitative restrictions. Similar tools are used to attain the objectives for *Environment and Health and Quality of Life*.

Figure 8.1 Framework of waste legislation



Source: ECORYS presentation for the "Technical Assistance to the Development of a National Waste Management Programme for the period 2008-2013 for Bulgaria" (commissioned by EVD Netherlands).

Global spillovers: climate change

Concerning *climate change*, the European Union sees itself as responsible in taking the lead in the mitigation process (see for example European Commission, 2007c). The European Union is adhering to appeals for developed countries to take the lead in mitigation as already formulated in the 1992 Rio Convention and later repeated in the Kyoto Agreement (see Müller, 2002). In this effort, EU policy aims to become a highly energy-efficient, low-carbon economy. EU Member States made a commitment to cut

emissions to at least 20% below 1990 levels by 2020 (see EC, 2007c).⁸⁶ This reduction will be achieved through a combination of measures already implemented through the European Climate Change Programme, such as the EU's pioneering Emissions Trading Scheme (EU ETS), and new measures contained in the integrated climate and energy strategy. These include: modernising EU energy policy; limiting transport emissions; making reductions in greenhouse gas emissions in other sectors; and increasing research and technological development (see also the text below).

EU action against climate change; leading global action to 2020 and beyond.⁸⁷

Strengthening the EU Emissions Trading Scheme (EU ETS)

The groundbreaking Emissions Trading Scheme plays a central role in Europe's long-term strategy to combat climate change. Launched in January 2005, the EU ETS is the biggest international trading scheme and a key pillar of the fast-growing global carbon trading market. Currently focused on industrial installations, the company-level system covers 45% of total EU CO₂ emissions. It is being reviewed with the intention of strengthening and extending it to cover a greater proportion of emissions from 2013. The EU's independent commitment to cut its greenhouse gas emissions to at least 20% below 1990 levels by 2020 gives certainty to industrial operators about the EU ETS' continued high level of ambition. This in turn creates investment certainty that will drive the large-scale development and deployment of emission reduction technologies and low-carbon solutions.

Modernising EU energy policy

- Cutting energy consumption by 20% compared with 'business as usual' levels through a major improvement in the energy efficiency of a wide range of appliances and equipment.
- Increasing the share of energy consumption derived from renewable energy sources to 20%, from around 7% in 2007.
- Raising the consumption of biofuels in relation to petrol and diesel to 10%, from around just 1% in 2007.
- Adopting a policy framework to ensure and promote environmentally safe use of carbon capture and geological storage (CCS) technology. The aim is to deploy CCS technology in new fossil-fuel power plants, if possible by 2020. The European Commission aims to encourage the construction of 12 large-scale demonstration plants in Europe by 2015.

Limiting transport emissions

While the EU is successfully reducing greenhouse gas emissions from manufacturing, energy and waste; emissions from transport have continued to grow. This trend has to be reversed.

- Legislation is under discussion to bring emissions from aviation into the EU ETS from 2011. Emissions from all flights arriving in or departing from the EU would be covered from 2012. The European Commission is also considering how to address emissions from shipping.
- Legislation is planned to ensure that the EU's target of reducing average CO₂ emissions from new cars to 120 grammes per kilometre is met by 2012.
- The European Commission has proposed new transport fuel quality standards that would reduce greenhouse gas emissions caused by the production, transport and use of petrol and diesel by

⁸⁶ And to 30% below 1990 levels by 2020 when, as part of a global and comprehensive post-2012 agreement, other developed countries are committed to comparable reductions; and advanced developing countries also contribute adequately to the global effort according to their respective capabilities

⁸⁷ From: European Commission (2007c).

10% by 2020. Ways to achieve this include accelerating the development and use of sustainable biofuels produced from non-food sources.

Making reductions in other sectors

- Energy use in buildings can be reduced by up to 30% by expanding the scope of EU legislation on the energy performance of buildings; and by introducing performance requirements that promote very low energy ('passive') buildings.
- Action is needed to reduce emissions of greenhouse gases other than CO₂, which make up 17% of EU emissions. This means taking measures to limit methane output, from gas engines, for example; and nitrous oxide from combustion plants, for instance, by including both these examples in the EU ETS. Furthermore, measures to reduce the use of fluorinated gases and emissions from the agricultural sector will need to be reinforced.

Increasing research and technological development

The substantially increased budget of € 8.4 billion allocated for environment, energy and transport under the EU's 7th Framework Programme for R&D (2007-2013) should be spent early. This will enable the soonest possible deployment of clean technologies, as well as further strengthening knowledge of climate change and its impacts. The research budget should be further increased after 2013, and this rise should be mirrored at national level.

Other measures

- The EU is looking into possible policy measures, including trade-related ones, to encourage other developed countries to take effective action to combat climate change.
- The Commission has already embarked on a major awareness-raising campaign to draw the general public's attention to the climate change impacts of their actions, and to engage individuals in efforts to reduce these.

The action package as described above involves the budget in the issues: *Modernising EU energy policy* and *Increasing research and technological development*. The other elements of the action package involve mostly (if not entirely) regulatory, legislative and/or administrative measures.

The European Commission also recognises the strong link between climate change and *development cooperation*. For example, deforestation in developing countries generates 20% of global greenhouse gas emissions, more than all forms of transport combined (see European Commission, 2007c). The problem of deforestation is typically addressed via development cooperation channels. In a speech at the UN Climate Change Conference, Bali, Commissioner Dimas indicated that the European Union spends around € 40 million each year on developing cooperation concerning forests. Furthermore, as the economies of developing countries are growing, they are going to need investment (of more than €130 billion a year) in new infrastructure and production capacities to generate the electricity they require for economic growth. The long lifespan of these investments means that the use of state-of-the-art clean technologies will be essential to minimise the increase in emissions. The European Commission (2007c) has projected that this will require an additional investment of some € 25 billion annually. The earlier this gap can be filled, the less developing country emissions will grow (see European Commission, 2007c). In an attempt to help fill this financial gap, a combination of instruments is used;

including development aid and innovative funding mechanisms such as the EU Global Energy Efficiency and Renewable Energy Fund (GEEREF) – see text below.

GEEREF⁸⁸

GEEREF, the Global Energy Efficiency and Renewable Energy Fund, is an innovative global risk capital fund set up by the European Commission in 2006 to mobilise private investment in energy efficiency and renewable energy projects in developing countries and economies in transition.

GEEREF will help to bring clean, secure and affordable energy supplies to some of the 1.6 billion people around the world who currently have no access to electricity. It will do so by accelerating the transfer, development and deployment of environmentally sound energy technologies. This will combat both climate change and air pollution, and will contribute to a more equitable distribution of Clean Development Mechanism projects in developing countries.

The Commission is putting €80 million into GEEREF over four years. Additional pledges, including those from Germany, Italy, and Norway, bring the total amount of funding so far to €122 million. This funding is expected to mobilise additional risk capital of between €300 million and €1 billion in the longer term. GEEREF should be operational and have first funds invested before the end of 2007.

8.1.2 The budget for environmental policies

The budget for environmental policies (as explicitly reflected in the Commission's budget: budget title 7) is relatively small and constitutes about 0.3% of the total budget. The largest part is devoted to the implementation of community environmental policy and legislation. These are, however, not the only funds the Commission relies on to pursue its environmental policy. Most funds are embedded in the Cohesion and Structural Funds, which reflects the Commission's integrated approach to environmental and regional policy. Furthermore, the 7th Research Programme has reserved about € 8.4 billion for research on environment, energy and transport; of which the majority of themes funded relate to the environment (notably fields related to climate change). Finally, the European Commission has set up the Global Energy Efficiency and Renewable Energy Fund (GEEREF) to mobilise private investment in energy efficiency and renewable energy projects in developing countries and economies in transition. € 80 million will be provided by the European Commission over 4 years. Additional funding from Member States brings the total amount to € 122 million. In total, the Commission spends around 5.5% of its budget on environmental policies (about € 6.5 billion).

Budget title 7: Environment

About 64 percent of budget title 7 is used to finance LIFE+ (the Community's Financial Instrument for the Environment); while about 8 percent is reserved for the European Environmental Agency. The rest is mainly used to finance administrative expenditure - see Table 8.2.

⁸⁸ Taken from European Commission (2007c).

Table 8.2 EU Budget for Environment – 2007

Name Budget chapter/Article	Budget chapter / Article	Commitments		
		Billion €	As % of	
			Budget chapter / Article	Total budget
Administrative expenditure of Environmental Policy	07.01 07.49 07.AWBL-01	0.08	21.71	0.06
Global environmental affairs	07.02	0.003	0.71	0
<i>Multilateral and international environmental activities</i>	<i>07.02.01</i>	0.003	0.71	0
Implementation of Community environmental policy and legislation	07.03	0.26	73.36	0.21
<i>LIFE+</i>	<i>07.03.07</i>	<i>0.23</i>	<i>64.36</i>	<i>0.18</i>
<i>Subsidy for the European Environmental Agency</i>	<i>07.03.09</i>	<i>0.03</i>	<i>7.86</i>	<i>0.02</i>
<i>Natura 2000 preparatory action</i>	<i>07.03.10</i>	<i>0.001</i>	<i>0.28</i>	<i>0</i>
<i>Pilot project - forest protection and conservation</i>	<i>07.03.11</i>	<i>0.003</i>	<i>0.85</i>	<i>0</i>
Rapid response and preparedness instrument for major emergencies	07.04	0.01	4.22	0.01
Environment	7	0.35	100	0.28

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/nmc-titleN1479F/index.html.

LIFE+ is the main source of financing that is directly targeted at environmental issues. With a budget of € 2.143 billion (for the period 2007-2013) the scope of LIFE+ is limited. With these limited resources, it focuses in particular on the 6th EAP Policy Framework – see Table 8.1. In addition to supporting the implementation of regulation and stimulating the production and exchange of information, the budget also supports NGOs that are primarily active in protecting and enhancing the environment at the European level. Moreover, specifically for the nature and biodiversity component, funds are devoted to the preservation of SPAs and SACs.⁸⁹ Community grants may be provided in specific forms, such as Framework Partnership Agreements, participation in financial mechanisms and funds, or co-financing of operating or action grants. At least 78% of the LIFE+ budget will be used for the co-financing of project action grants, of which at least 50% will be for nature and biodiversity projects.⁹⁰ The remaining sum should cover operational expenses.

⁸⁹ Including the improvement of the ecological coherence of the Natura 2000 network, the monitoring of conservation status, including — but not limited to — setting up procedures and structures for such monitoring, the development and implementation of species and habitats conservation action plans, the extension of the Natura 2000 network in marine areas and, in limited cases, the purchase of land.

⁹⁰ For action grants, the maximum rate of co-financing may not be higher than 50 percent of eligible costs, except with respect to SPAs and SACs in the area of nature and biodiversity (up to 75% of eligible costs).

Regional funding of environmental policies

An overview of funding possibilities for environment policies via the structural and cohesion funds, as well as CAP and the European Fisheries Fund is provided in the handbook on EU funding of environmental policies for the programming period 2007-2013 (see Table 8.3).

Table 8.3 Overview of environmental funding possibilities (2007-2013)

	Direct (targeted towards the environment)								Indirect (integration into other sectors / areas)							
	Environmental "Clean-up"	Environmental infrastructure	Water management	Biodiversity / Natura 2000	Energy efficiency / renewables	Environmental capacity-building	Environmental awareness-raising	Natural risk prevention	Sustainable transport	Sustainable tourism	Sustainable agriculture and forestry	Sustainable fisheries	Industry / Clean technologies	Innovation/R&D	Qualification / Social inclusion	Health/Quality of life
ERDF																
<i>Convergence</i>	C	C	?	C	C		C	C	C	C			C	C	C	C
<i>Competitiveness</i>	C		?	C	C			C	C				C	C		
<i>Cooperation</i>	?	C	C	P		C		C	C	C				C		C
ESF																
<i>Convergence</i>						C	?								C	C
<i>Competitiveness</i>						C	?								C	C
Cohesion Fund	?	C	?	?	C				C							
EAFRD		P	P	C		C	C	C		C	C				C	C
EFF				P		P	P			P		C			C	P
C = clear P = possibly ? = uncertain																

Source: World Wide Fund for Nature (2005)

It is difficult to produce exact amounts that are spent on specific programmes or objectives, but some indication of the total amount is available. For example, previously about € 2 billion of the European Agricultural Guidance and Guarantee Fund (EAGGF) Guarantee Section were spent annually on agri-environmental measures (European Commission, 2006b). Furthermore, the World Wide Fund for Nature (2005) reports estimate that 10 percent of Structural Funds are spent on environmental investments; equivalent to about € 3 billion.⁹¹ Adding this up, the Commission spent about € 5 billion on environmental policy (about 5% of the budget). During the current Financial

⁹¹ Lenschow (2005: 314) finds that € 2.5 billion of the Cohesion Funds are spent on environmental policies.

Framework (2007-2013) the ERDF, ESF and the Cohesion Fund together will contribute about € 50 billion to environment policies. This represents about 5% of the budget, as well.

Research funding

The 7th Research Programme has reserved € 1.9 billion for the research into environmental issues, € 2.35 billion for research into the field of energy (with a clear focus on clean energy technologies, energy-saving technologies and carbon storage technologies), and € 4.1 billion for research into the field of transport (with a strong focus technologies reducing emission rates). Table 8.4 gives an overview of the various research themes financed by FP7 in the field of environment, energy and transport. On a yearly basis, this amounts to € 1.2 billion spent on environment-related research.⁹²

Table 8.4 Research themes in FP7 for Environment, Energy and Transport

Environment	Energy	Transport
<i>Climate change, pollution and risks:</i> - Pressures on the environment and climate - Environment and health - Natural hazards	<i>Renewables</i> - Hydrogen and fuel cells - Renewable electricity generation - Renewable fuel production - Renewables for heating and cooling	<i>Aeronautics and air transport</i> - Reduction of emissions, work on engines and alternative fuels - Air traffic management, safety aspects of air transport, - Environmentally efficient aviation
<i>Sustainable management of resources:</i> - Conservation and sustainable management of natural and man-made resources and biodiversity - Management of marine environments	<i>Clean energy production</i> - CO₂ capture and storage technologies for zero emission power generation - Clean Coal Technologies	<i>Sustainable surface transport (rail, road and waterborne)</i> - Development of clean and efficient engines and power trains - Reducing the impact of transport on climate change, - Inter-modal regional and national transport - Clean and safe vehicles, - Infrastructure construction and maintenance, integrative architectures

⁹² It should be noted that not all of the transport-related themes relate to the environment (e.g. infrastructure, safety and the Galileo programme are not related to the environment).

Environment	Energy	Transport
<i>Environmental technologies:</i> - For observation, simulation, prevention, mitigation, adaptation, remediation and restoration of the natural and man-made environment - For the protection, conservation and enhancement of cultural heritage - Assessment, verification and testing	<i>Energy efficiency</i> - Smart energy networks - Energy efficiency and savings	<i>Support to the European global satellite navigation system</i> - Galileo and EGNOS - Navigation and timing services - Efficient use of satellite navigation
<i>Earth observation and assessment tools:</i> - Observation systems and monitoring methods - Forecasting methods and assessment tools	<i>Policy-making</i> Knowledge for energy policy-making	

Development cooperation

It is unclear how much is spent on climate change via development cooperation. As mentioned above, the Commission spends about € 40 million each year on combating deforestation and about € 20 million each year on stimulating clean energy investments in developing countries via GEEREF. But these are not the only funds. For example, on 18 September 2007, the European Commission adopted a Communication to the Council and the European Parliament: “Building a Global Climate Change Alliance between the European Union and Least Developing Countries Vulnerable to Climate Change.” The GCCA is intended to provide a platform to create awareness and to jointly address the effects of climate change between the EU and those developing countries that are and will be most affected by climate change. The European Commission earmarked € 50 million of additional funds over the period 2008-2010 to kick-start the initiative. There are likely to be more programmes on climate change in developing countries financed through regular development cooperation programmes.

8.2 Assessment

8.2.1 General assessment of environmental problems

Normative

It is increasingly evident that the damage caused by several forms of environmental pollution is international in scope. The UN Framework Convention on Climate Change is a good example but there are many others, including treaties on trade in endangered

species, CFCs, and biodiversity. On the other hand, there are also many environmental externalities that have a national character (e.g. landfills, fine dust, smog, etc.). Normative arguments provide a clear framework for ‘who should do what’ with respect to these different environmental problems. This is very clearly described by Oates and Portney (2001:19): “We can envision a system of environmental policy-making in which the central government sets standards and oversees measures to address explicitly [federal] pollution problems, and intervenes in cases (like acid rain) where polluting activities in one jurisdiction impose substantial damages elsewhere. In addition, the central government would provide basic support for research and the dissemination of information on environmental problems - since these are activities that benefit everyone. At the same time, decentralised levels of government would set their own standards and establish their own programs for managing those dimensions of environmental quality that are primarily contained within their own boundaries (for instance, the standards that a local landfill site might have to meet).”

This approach should be completed with an assessment of heterogeneity. Dur and Roelfsema (2005) notice that countries with strong preferences for environmental protection fear that enlargement may lower the common standards in this domain. Grossman and Krueger (1995), among others, find that such heterogeneity of preferences is real and is strongly related to per capita income. The relation between income and environmental degradation takes an inverted U-shaped form. This apparent empirical relationship is referred to as the ‘environmental Kuznets curve.’

Positive

Oates and Portney (2001:19) note: “This basic view of environmental federalism has, however, been the subject of a fundamental challenge, at both the theoretical and the policy levels. The source of this challenge is the contention that local officials, in their eagerness to encourage new business investment and economic growth, will set excessively lax environmental standards to keep the costs of pollution control low for existing and prospective firms. The result will be a “race to the bottom” with inefficiently high levels of polluting activities.” This view was earlier formulated by Cumberland (1979, 1981) who contends that state and local governments engage in “destructive inter-regional competition” in order to attract new business and create jobs. Furthermore, Oates and Schwab (1988) point out the danger that local policy-makers are Niskanen-type agents who seek to maximise the size of the local public budget, rather than the well-being of their constituencies. This would result in excessively lax environmental standards in order to encourage a larger inflow of capital, so as to enlarge the local tax base. Both the harmful competition between governments, and the possibility for Leviathan governments would result in excessive environmental degradation.

Oates and Portney (2001:23), however, do not find evidence to suggest that there is a widespread ‘race to the bottom’. They conclude that “the support for an affirmative answer to the question [whether there truly is a race to the bottom] is largely anecdotal; to our knowledge, there is little systematic evidence of any such race [...] if there were fierce and distorting competition, we might expect to find few instances in which decentralised jurisdictions introduce environmental measures that are more stringent than the centrally-determined standards. Yet in the United States, states have introduced regulations for the control of pesticides and hazardous wastes that go well beyond federal

requirements.” Oates and Portney (2001) refer to numerous other studies that did not find evidence of any ‘race’.

Inman and Rubinfeld (1992) indicate the public good character and the dangers of free-riding. Sinn (2003) elaborates on this by pointing out the dangers of beggar-thy-neighbour policies in the form of ecological dumping as a consequence of setting Pigouvian tax rates too low. This phenomenon would be absent as long as environmental damage only occurred within the country’s borders. A similar case can be made for R&D in environmental topics: when it concerns a supra-national / global environmental problem, it is to be expected that national governments will invest too little and will try to free-ride on the efforts of others.

8.2.2 Assessment of the budget

Nature and Biodiversity

Smith and Wilen (2002) notice that due to the intensification of farming systems, a generation of physical externalities has emerged. Also the intensification in marine systems has produced fundamental spillover effects. Notably, these externalities affect natural habitats of wildlife in both land and marine environments. Bulte and Horan (2003) notice that wildlife and their habitats do typically not stop at the border and spill over from adjacent natural parks or otherwise. Consequently, there is a need for cross-border control (e.g. in the form of a management agency). For some wildlife (notably birds) the habitat typically crosses several borders, which calls for an extensive management network (such as Natura 2000). However, these habitats may even extend beyond European borders. Therefore supra-European coordination is called for.

With respect to marine habitats, there are more global problems. Nevill (2006) mentions examples such as changes to oceanic temperatures, as well as acidity and currents. These are largely caused by increasing levels of atmospheric carbon dioxide, as well as impacts from damage to the ozone layer. European externalities can be found in sea and land-based pollution and in alterations in ecosystem caused by the introduction of alien organisms - especially those transported by ballast water and hull fouling. The problems in the marine environment become more pressing as they exceed constitutional boundaries due to the absence of property rights, and hence the absence of (workable) institutional structures to generate solutions (see Smith and Wilen, 2002). This calls for supra-European coordination / negotiation. As indicated earlier, centralisation of external negotiations is more effective due to scale economies.

However, despite these spillovers, ecosystems vary tremendously from one place to the next. Consequently, Adler (2006) argues that: “The failure to take into account local environmental conditions – let alone local tastes, preferences, and economic conditions – leads to “one size fits all” policies that fit few areas well; if at all.” Nivola and Shields (2001) agree that ecosystem-based regulation may require greater reliance upon local judgments. The integrated approach with the regional and agricultural policy (see Table 8.3) and the fact that these policies are typically designed locally gives a similar local approach to the bulk of EU environmental actions.

All in all, there seems to be a strong case for coordinated action. Inman and Rubinfeld (1992) find that voluntary agreements between Member States may be possible. But they state that “at a minimum, a central government administrative structure will be needed to enforce the arrangements.” However, the possibilities for cooperation (or bargaining) may be limited for a number of reasons. Firstly, the larger the reach of the externality, the greater the number of governments involved; and the more difficult it will be to reach consensus. Moreover, the problem of lacking property rights increases with the global nature of externalities; this typically hampers any negotiation process (see Common, 1988). Finally, the non-rivalry in pollution means that a bargaining process is impossible (see Common, 1988). Budgetary support from the centre may be involved to compensate losers in order to facilitate agreement. Alternatively, the centre may dictate regulation that is possibly enforced by a federal Environmental Protection Agency; particularly those measures that are agreed upon in international negotiations.

Thus, the problems in the field of Nature and Biodiversity typically call for a package of policies from the centre, involving regulation, coordination and budgetary measures.

Natural Resources and Waste

The relation between proper waste management, recycling and the exhaustion of natural resource stocks should be clear. It should also be clear that if one country does not apply proper waste management and fails to recycle, it imposes costs on others in the form of higher prices for natural resources. This spillover effect is typically referred to as the ‘fisheries problem’ (see Common 1988). The problem would be less pressing if all waste management were operated by private companies. After all, the extraction of resources from waste may be just as profitable as extracting it from other sources. However, as waste management in Europe is often provided by governments, as a so-called ‘service of general (economic) interest’, profit incentives are lower or are even absent. European policy aims to promote market based solutions. Furthermore, as a second-best solution, European waste legislation imposes a so-called ‘waste hierarchy’ approach to stimulate waste recycling.

Furthermore, in relation to natural resources, short-sighted use of these resources may lead to an inefficient depletion rate from an intergenerational perspective. National governments may be susceptible to similarly myopic behaviour under the influence of the harmful systems of competition described above.

Preservation of natural resources and waste management typically involve legislation and promoting the production and exchange of information. An integrated approach may also subsidise innovations in the field of waste management.

Environment and Health and Quality of Life

Spillovers are less clear in relation to this policy area as it involves mainly local externality problems. For example, pesticides primarily pollute local ground water and surface waters. In principle, these externalities may also spill over longer distances via river flows, but the problem is essentially local in its nature; although in border areas there may of course be spillovers to neighbouring border regions. The same applies for

certain forms of air pollution (such as fine dust), which essentially have a local (regional) reach.⁹³

Arguments for central involvement in this policy area may be found in the failing governments hypothesis (even though empirical evidence is absent – see above). Other reasons for including this policy field in the EU policy framework may be defended by using equity arguments. There is a complementarity between the EU's policy for cohesion that more or less strives to certain minimum living standards. These may include a minimum level of cleanliness and well-being for all EU citizens. Such motivations are rather paternalistic. Generally such types of *in kind* transfers are less efficient than simple monetary transfers.

Climate change

Climate change is a typical example that involves global and intergenerational spillovers. The global dimension stems from that fact that the problem of greenhouse gases and climate change is a problem that supersedes the European Union. The intergenerational dimension follows from the fact that climate change finds its causes in the past and present; whereas the consequences will only be (clearly) noticeable in the future. Today's policy challenges in relation to climate change thus relate to addressing the causes at a global scale in order to mitigate the effects for future generations. The global dimension of the problem requires international cooperation. The ideal solution would be to coordinate these efforts at the supra-European level, such as the United Nations. There are clear scale economies when the Member States allow the European Union to represent them at this level: on the one hand, there are scale economies in international negotiations (Anderson, 2006); on the other hand, one could argue that there are scale economies in leverage when fulfilling an exemplary role and taking the lead in policy formulation (and execution) – with the hope that others will follow that example (possibly induced by local voters).

Seeking international cooperation by the EU, however, requires a clear mandate from the Council beforehand; and the task of coordinating, executing and/or controlling the implementation of agreed measures afterwards. In some cases, these measures typically involve regulatory and market-based measures (ETS, procurement, tax incentives, and standards) and the budget to a lesser extent. This is the case, for example, in relation to policies aimed at reducing emission rates in transport and other sectors. In other cases, the budget is evidently involved; in particular in relation to R&D expenditures, including those related at modernising energy policy (this includes research into sustainable energy, cleaner technologies, carbon storage, etc.). Arguments for a role for the European Union in R&D expenditure in the field of combating climate change are rather strong. Firstly, there are the scale economies and arguments concerning spillovers involved in R&D as such (see Chapter 6). Secondly, the supra-national character of the environmental spillovers makes (even more) under-spending by national governments more likely (Stern Review, particularly Chapter 16). Centralisation would increase efforts to a more efficient level. Subsidisation will be required, at least partly, to ensure that there is no free-riding

⁹³ Of course, we are not referring here to greenhouse or CFK gases, which have an undisputed global spillover effect.

by individual Member States; and to ensure that all potential innovators are reached.⁹⁴ Moreover, spending is necessary to some extent to ease the adoption of new technologies and showcases.

The efforts of developed countries to support developing countries in the mitigation process, and to exempt the least developed countries from a need to reduce emission rates are based on principles of fairness, such as the *polluter-pays* principle (the developed countries have the highest emission rates) and the *ability-to-pay* principle. In fact, the assistance from developed to developing countries in mitigation should be analysed as simply another form of development cooperation. There are good reasons to organise and finance this from the centre. As explained more extensively in Chapter 15 these relate to scale economies and solidarity and equity arguments. Furthermore, the nature of the global public good (non-rival and non-excludable) typically gives rise to free riding problems.

8.3 Conclusions

The assessment of the current budget indicates a clear role for the EU budget in environmental policies relating to Nature and Biodiversity and to climate change.

The main arguments for Nature and Biodiversity relate to the need to invest in preservation in order to address European/global spillovers. Other areas can either be addressed via regulation (Natural Resources and Waste) or do not involve cross-border spillovers (Environmental Health and Quality of Life).

Climate change is a global problem, with important spillovers of national policies. Drastic action in one country partially mitigates problems in other countries. This leads to under-investments at the national level in actions to counter climate change (Stern Review, particularly Chapter 16). In addition, there are scale economies in the EU taking up a role in international negotiations like the Kyoto Protocol (Anderson, 2006). This requires a clear mandate for the European Union upfront; and involves coordinating and controlling the implementation of agreements afterwards. These measures typically involve regulatory and market-based measures (Emission Trading Scheme (ETS), procurement, tax incentives, and standards) and do not involve the budget to a great extent. Additional spending may be required to ease the adoption of new technologies and showcases (Stern Review). A further case can be made for central co-funding of R&D for energy-saving and other specific actions in fighting climate change. Centralisation would increase R&D efforts to a more efficient level. Finally, policies aimed at mitigation in developing countries are another form of development cooperation for which a clear normative case can be made in favour of centralisation.

Table 8.5 below provides an overview of the main conclusions.

⁹⁴ Tax expenditures are not effective at targeting exempt institutions (e.g. universities) and loss-making entities (e.g. start-ups); regulation does not stimulate R&D per se.

Table 8.5 Conclusions on Environmental Policies

<i>Reach of the externality:</i>	<i>Global</i>		<i>European</i>	<i>Local</i>
Policy field	Climate Change	Nature & Biodiversity	Natural Resources & Waste	Environmental Health and Quality of Life
<i>Does the following apply</i>				
Normative test				
Economies of scale	Yes	Some	No	No
Externalities	Yes	Yes	Yes	Limited
Diversity	Limited	Yes	Yes	Yes
Pro-centralisation				
Limits to system competition	Yes	Yes	Yes	No
Second-best	-	-	Yes	-
Complementarity between policies	Yes	Yes	Yes	Yes
Lobbying	No	No	No	No
Pro-decentralisation				
Self-interest and accountability	No	No	No	Yes
Common pool	-	-	-	-
Lobbying	No	No	No	No
Credibility of co-operation	No	Limited	More	Yes
Proportionality ⁹⁵	Yes (R&D) ⁹⁶	Yes	No	No
Conclusion	Yes	Yes	No	No

The top row of the table indicates the extent of the externality involved. As indicated above, this affects the credibility of cooperation between government levels.

Role in terms of the budget

There is a role for the EU in addressing climate change. Although this role mainly involves regulation and coordination activities, there is a clear case for the budget as well. This is clearly illustrated by the recently announced climate change package, which consists of regulation and specific actions (tax incentives, the potential use of state aid) at the Member State level⁹⁷ and of specific budgetary action in the field of R&D (notably in fields related to energy). Currently, the EU spends about € 1.2 billion each year on R&D. Whether this is a sufficient amount is unclear. Estimates are wide-ranging and amount to over €15 billion per annum on a global scale for combined public and private

⁹⁵ With respect to the involvement of the budget.

⁹⁶ But in many cases regulation suffices.

⁹⁷ As the EU does not levy the relevant taxes, Member states should use this instrument to control behaviour.

expenditures in this area (Stern Review). Considering that the EU produces about a third of the world's GDP, € 5 billion would be a fair figure for the EU, its Member States and the private sector combined.

9 Agriculture and Rural Development

9.1 Introduction

Agricultural policy is one of the oldest and most active policy areas since the origins of the EU, though its justifications on efficiency grounds have long and convincingly been challenged (see for example Alesina et al., 2002). On the other hand, such assessment of spending is ambiguous, as subsidies to farmers may also be considered as redistributive (transfer) payments. This means that arguments related to efficiency alone will not provide a comprehensive analysis (see Stiglitz, 2000). Furthermore, a strict normative approach does not account for decisions by politicians made in the past, but does affect the world today (also referred to as path dependency). Nevertheless, path dependency cannot be an argument to uphold a policy forever; it merely indicates that changes should be gradual.

The sections below present an extensive description of the Common Agricultural Policy (CAP), including a brief description of the history of the CAP and a presentation of the current budget. Subsequently, the different policy objectives of the CAP are assessed. Here we distinguish between market interventions and income support (Pillar 1) and rural development (Pillar 2). Finally, we conclude on the implications for the budget and an analysis if (and why) the conclusions from the assessment may change in the future.

9.2 Policy and budget

The Common Agricultural Policy (CAP) in 2007 is different from the one first developed fifty years ago. In the first decades of the CAP, the main aims were to increase production to provide food security and income support for a shrinking agricultural sector.⁹⁸ The EU substantially reformed the CAP by reducing support policies (e.g. for cereals and beef). In return (coupled) direct payments were introduced in 1992, and were subsequently increased and extended. These payments were *decoupled* from production through the implementation of “single farm payments” as the key element of the 2003 CAP reform. Simultaneously, rural development measures were introduced into the CAP, which are co-financed by the Member States. Export and production subsidies and other measures (mainly direct intervention) were dramatically reduced from almost 80% of the CAP budget in 1991 to about 20% today.⁹⁹ In the meantime, the CAP budget was reduced from 70% of the budget (in 1985) to 44% today. The CAP is still the most important policy

⁹⁸ The aims were supported by a highly protectionist system of price support through high tariffs and domestic measure such as intervention price systems. In the eighties the EU turned into a net exporter and increasingly relies on export subsidies.

⁹⁹ 11% in the form of production and export subsidies and 12% in the form of *coupled* direct payments.

domain in the EU budget, but its share will gradually decrease further to 40% of the budget in 2013 (see Financial Framework 2007-2013). This reduction mainly affects the so-called first pillar (market policies and income support) and the second pillar (rural development) to a lesser extent.

To put the current budget into perspective, a brief description of the CAP's history of objectives and reforms is presented below (Section 9.2.1). Since the CAP has recently experienced (drastic) changes which will increasingly come into effect during the implementation of the present Financial Framework (2007-2013), Section 9.2.2 presents a description of the policy agenda and objectives resulting from the 2003 reform. Finally, the current budget is discussed in Section 9.2.3. In addition, that section discusses briefly how policy objectives are reflected in the budget.

9.2.1 History of the Common Agricultural Policy (CAP)¹⁰⁰

Initial policy objectives

With the introduction of the CAP (1962), agriculture in Europe was strongly affected by government interventions, in particular with regard to production, prices and farm structures, to be financed through the European Agricultural Guidance and Guarantee Fund (EAGGF). The initial (and current) objectives of the CAP, as set out in Article 39 of the Treaty of Rome, related to the three classic government tasks: stabilisation, equity and allocation – see below.

CAP Objectives (pre-1990)

Stabilisation:

- to secure the availability of supply.

Equity:

- to ensure fair standards of living for farmers;
- to provide consumers with food at reasonable prices.

Allocation:

- to stabilise markets;
- to increase productivity by promoting technical progress;
- to ensure the optimum use of factors of production (land, agro inputs, labour).

With its external trade regime and the CAP in place, the principal measures used by the EU to protect its agriculture sector and to guarantee self-sufficiency in basic food supplies were import tariffs, intervention prices (with the aim of stabilising markets), and production subsidies set at different levels for different crops.

In the 1980s, the EU's production-oriented policy greatly bypassed the key objective of guaranteeing food self-sufficiency. In fact, the EU became a victim of its own success. Since 1960, improvements in farm efficiencies have been dramatic, which together with the financial incentives offered by CAP created huge food surpluses within the EU.¹⁰¹ With the creation of the huge food surpluses causing trade distortions on the world market, came the first strong criticisms of the EU's agricultural policy from several

¹⁰⁰ Based on Grethe (2008) and Ooijen (2006).

¹⁰¹ Such as the fabled beef, cereal and butter mountains and the milk, olive oil and wine lakes.

directions,¹⁰² such that the assertion that it encouraged unfair competition, created Third World poverty and caused environmental damage. The stage was set for serious CAP reforms to be undertaken.

Reforms of the CAP

The CAP has always been a difficult area of EU policy to reform. The farming-lobby's power has very much been a factor determining EU agricultural policy since the earliest days of the CAP. This phenomenon began in the 1960s and continues to the present day, albeit less heavily. Nevertheless, the 1980s was the decade that saw the first true reforms of the CAP, foreshadowing further developments from 1992 onwards. Table 9.1 shows a chronological overview of the most important reforms.

Table 9.1 Overview of reforms of CAP

Year	Reform measure
1984	Quota on dairy products
1988	Ceiling on EU expenditure to farmers
1992	Level of support for cereals and beef reduced Introduction of (coupled) direct payments compensating farmers for the reduction in price support introduced at the same time. "Set aside" payments introduced to withdraw land from production and to limit food stock levels
2000	Confirmation of Rural Development as a second pillar of the CAP
2003	Decoupling of subsidies from production Consolidation of subsidies into a Single Farm Payment as alternative means of farm income support ¹⁰³ EU farmers will have more freedom to produce what markets wants

During the 1980s, the influence of the farming bloc declined, and with it, the reformers were emboldened. A quota on dairy production was introduced in 1984, and finally, in 1988, a ceiling on EU expenditures to farmers was set in order to reduce production and hence reduce the huge food surpluses.

In 1992, a second round of CAP reforms¹⁰⁴ was introduced to further limit rising production levels; while at the same time adjusting to the trend of more free agricultural markets. The reforms reduced the level of support for cereals and beef, and the world price was (internally) approximated. Furthermore, so-called "set aside" payments were introduced to withdraw land from production and to limit food stock levels. One of the main catalysts behind the 1992 reforms was the need to pacify the EU external trade

¹⁰² Notably from the USA and developing countries.

¹⁰³ The Single Farm Payment entered into force in January 2005 but implementation was allowed to be delayed by EU Member States until 2007 at the latest. The new payment is no longer linked to what a farmer produces. Instead, based on the average level of payments made during 2000-2002, the farmer receives a single payment. No production is required. In fact, this payment scheme is considered as farm income support to compensate for the price cuts generated during the CAP reforms (support and intervention prices).

¹⁰⁴ The so called MacSharry Reforms (named after the then European Commissioner for Agriculture, Ray MacSharry).

partners at the Uruguay round of the GATT trade talks with regard to agricultural subsidies.

The EU Agenda 2000 confirmed rural development policy as a “*second pillar*” in agricultural policy, alongside the common organisation of the market (or Market and Income Support) that constitutes the “*first pillar*” of the CAP. The main purpose of the second pillar is to improve the economic, social and environmental situation of all rural areas within a context of sustainable development.

In 2003, the EU agricultural ministers adopted a further reform of the CAP in relation to the first pillar. This reform was based on an almost entirely “decoupling” of subsidies from a particular product. This implied that CAP was to be vastly simplified with the consolidation of the wide range of different direct payment schemes into a single payment. The main aim of the Single Payment is to guarantee farmers more stable incomes; while making EU farmers more competitive and market-oriented. Furthermore, the Brussels' agreement of the European Council of October 2002 on agricultural expenditure introduced a ceiling for first pillar CAP expenditure (market measures and direct payments), in order to prepare for enlargement and to avoid resulting excessive budgetary risks.

According to this last decision, the ceiling for agricultural expenditure for 2007-2013 was fixed at the level foreseen for 2006 with an additional annual nominal increase of 1% (hence a decrease in real prices in the event of inflation being higher than 1%). The Financial Framework for 2007-2013 predicts a decreasing relative share of agricultural expenditure since other expenditure categories increase; while agricultural expenditure has been capped (but does not substantially decrease). Consequently, the share of CAP in the budget will decline from the then figure of 44 percent to about 40 percent of the total EU budget by the end of 2013.

9.2.2 Policy agenda and objectives (2007-2013)

With the EU placing much greater emphasis on rural development than in the past, more funds have been transferred from the first pillar (Market and Income Support) to the second pillar (Rural Development). This shift in funds mirrored a shift in objectives and priorities which was already clear from the main reasons that propelled the reforms in the first place.¹⁰⁵ Without compromising the EU's role of ensuring the supply of food (stabilisation) and providing a reasonable standard of living for EU farmers (equity); the driving forces behind EU's recent agricultural policy reforms were mainly related to the allocation problem:

- removing incentives for overproduction and production intensity;
- improving/guaranteeing the quality, safety and affordability of food (including animal health and welfare conditions);¹⁰⁶
- ensuring that the environment is protected for future generations;

¹⁰⁵ Still, the current budget allocates 81% of its funds to the first pillar and 19% to the second – based on commitments in the 2007 budget.

¹⁰⁶ Amongst other things, to prevent such disasters that result from BSE, avian influenza (bird flu), swine fever, foot-and-mouth disease, etc.

- preservation and diversification of rural life; and
- developing a sustainable and competitive agricultural sector.

The above issues resulted in specific objectives for each pillar. These are presented below.

First pillar: Market (food) and Income Support

The reforms of the first pillar (particularly the establishment of the Single Payment Scheme) allows farmers to respond better to market-driven signals whilst being largely secured of income through the introduction of the Single Payment component. As such, incentives for overproduction and production intensity are (or will be) removed; while still contributing to reasonable standards of living for EU farmers and encouraging affordable food prices.

Furthermore, the Single Farm Payment Scheme contributes to environmental preservation, the security of food supplies, the quality and safety of food and the well-being of animals via the so-called 'cross compliance' standards.¹⁰⁷

A second tranche within the first pillar deals with market interventions in agricultural markets consisting of production and export subsidies. These funds (serving both an allocative function and a redistributive one) are inherited from the past. The Commission insists on increasing the rate of decoupling;¹⁰⁸ particularly because they seem to have bypassed the objectives,¹⁰⁹ and because they seem to have pursued the objectives at unnecessarily high costs to others and to the budget.

Second pillar: Rural Development

In order to halt the ongoing deterioration of the rural areas,¹¹⁰ the CAP now gives much greater emphasis to rural development measures than in the past. More funds have been allocated, and specific policies developed - particularly by European Regulation No 1698/2005 for the European Agricultural Fund for Rural Development (EAFRD). The programmes are co-financed by the Member States.

The main objectives of the EU Rural Development Policy (2007-2013) are allocated over three major Policy Axes and a fourth axis which has more of an operational purpose than a functional purpose (as in the three government functions):

- improving competitiveness of agriculture and forestry (Policy Axis 1);

¹⁰⁷ The 'cross-compliance' standards make payments from the Single Payment Scheme conditional on farmers respecting standards regarding the environment, food safety, animal welfare and health.

¹⁰⁸ See: http://ec.europa.eu/agriculture/healthcheck/index_en.htm.

¹⁰⁹ Originally these interventions were to stabilise income via stabilisation of market prices. Reasons for this were on the one hand, the fact that farmers typically cannot buy insurance to protect against high volatility in prices and output, and hence, income. On the other hand, these policies directly intended to support the income of farmers and thus served an equity objective. Concerning both policy objectives, price interventions are unsuitable and merely lead to the creation of huge market distortions, such as the fabled beef, cereal and butter mountains and the milk, olive oil and wine lakes (see also Stiglitz, 2000).

¹¹⁰ With the modernisation of the sector, farms gradually became larger and more mechanised, requiring less manual labour, less demand for servicing, handling and storage, etc. Also as a result of the growing farm size, often to the detriment of smaller farms, the number of farm families decreased over time. As a consequence, the social infrastructure in the rural areas slowly collapsed as it became less and less sustainable. Lack of farm follow-up also caused many farms to be abandoned, allowing other farms to grow in size, but causing a slow but steady deterioration of the rural environment and the countryside.

- developing rural environment and the country side (Policy Axis 2);
- supporting quality of life in and diversification of the rural economy/areas (Policy Axis 3);
- LEADER Community Initiatives introduce possibilities for locally based bottom-up approaches to rural development. LEADER's main aim is to involve the local community as much as possible in the improvement of the socio-economic and environmental situation in rural areas.¹¹¹

The Agricultural Fund for Rural Development fulfils several functions (notably, equity and allocation). Looking at the overview of strategic issues and measures (see Table 9.2), it shows that most policies are related to an allocation problem. Some issues could also be classified as an (inter-regional) equity related problem; for the same reason as structural funds can be classified as dealing with an equity problem.¹¹² Below, the policy objectives are briefly elaborated in light of these functions.

Allocation

The first axis foresees measures that address an allocation issue such as:

- subsidising education (to compensate for the positive external effects of training);
- supporting the start up, restructuring and modernisation of businesses (for reasons of failing financial markets);
- subsidising/stimulating schemes for quality improvements (addressing problems of asymmetric information and adverse selection); and
- setting up producer groups.

The second axis focuses on specific rural-environmental issues, which essentially relate to externalities; for example, over-fertilisation of soils (a negative externality) and maintenance of landscape quality (a positive externality) – see Waarts (2005). In relation to the latter, rural economists often refer to the “multifunctionality” of agriculture (Bohman et al., 1999).¹¹³ Also the term “landscape management” is sometimes used in this context, which includes aspects of management of landscape values - such as landscape aesthetics, historical and cultural heritage values and recreational interest (see Rønningen, 2001).

The third axis typically counters a negative multiplier or cumulative causation effect resulting in a rural exodus, which essentially relates to an externality problem.¹¹⁴ Such regional economic problems are typically addressed by active and passive policies such

¹¹¹ The concept is based on the fact that disadvantages of rural areas are worsened by the erosion of communities in rural areas, lack of co-operation and partnership between public administrations, enterprises and the population. The communities are usually weak and poorly organised, community participation is occasional, regions start to lose their characteristic features and identities, and development initiatives (if any) are often isolated.

¹¹² De facto large sums of the Structural Funds are redistributed from higher-income to lower-income Member States. Chapter 5 provides a more specific analysis of structural funds.

¹¹³ The OECD has defined multifunctionality as follows:

i) the existence of multiple commodity and non-commodity outputs that are jointly produced by agriculture and,
ii) the fact that some of the non-commodity outputs exhibit the characteristics of externalities or public goods, with the result that markets for these goods do not exist or function poorly.

OECD (2001a:13).

¹¹⁴ The notion was regional multiplier is quite commonly known among regional economists. In a nutshell, it means that if my neighbour moves, my butcher has to close due to lack of business. As a result I can't buy meat and consequently I am considering leaving town, as well. See also Myrdal (1957); or a more recent source: Krugman et al. (2001).

as: providing social services to increase the quality of life so to establish a consumer base; affecting location choices with subsidies or start-up support; diversification of the economic structure; or creating ‘driving’ industries that generate financial inflows from outside the region (in this case: tourism).

Equity

In addition, the Second pillar funds address an (inter-regional) equity-related problem; for the same reason as Structural Funds can be classified as dealing with an equity problem. Chapter 5 provides a more specific analysis of Structural Funds and their functions.

National Strategy Plans

European Regulation No. 1698/2005 for the European Agricultural Fund for Rural Development (EAFRD) 2007-2013 represents a set of detailed rules on the management of programmes. To become eligible for EAFRD finances, Member States should propose National Strategy Plans, subject to a range of guidelines, strategic issues and available measures to achieve the objectives of the Regulation.¹¹⁵ Table 9.2 provides an overview. The LEADER axis stresses the importance of involvement of local/regional bodies in the policy formulation and implementation phase. Guideline 5 stresses the complementarities between the policy axes; these should be mirrored in the National Development Plans.

¹¹⁵ National strategy plans and rural development programmes have been submitted to the European Commission. It is expected that the Commission will approve a total of 94 national or regional Rural Development Programmes.

Table 9.2 Main Measures of EU Rural Development Policy (2007-2013)

Policy Axis	Guideline	Strategic issues	Measure	
Axis 1: Competitiveness	Guideline 1: The resources devoted to Axis 1 should contribute to a strong and dynamic European agrifood sector by focusing on the priorities of knowledge transfer, modernisation and innovation in the food chain and priority sectors for investment in physical and human capital.	- Desired development farm structures (which farms to target) - Strengths/weaknesses in the agrifood sector - Balance between restructuring and innovation	1. Vocational training 2. Setting-up young farmers 3. Early retirement of farmers and workers 4. Farm modernisation 5. Added-value to primary agricultural and forestry products	6. Development of new products, processes and techniques in the agriculture sector 7. Support farmers in food quality schemes 8. Setting-up producer groups 9. Support semi-subsistence farms undergoing restructuring
Axis 2: Rural environment	Guideline 2: The resources devoted to Axis 2 should contribute to three EU level priority areas: biodiversity and preservation of high nature value farming and forestry systems, water, and climate change.	- Balance between AE, Natura and LFA¹¹⁶ - AE: role organic farming (link axis 1), importance certain farming types and landscapes for rural diversification (link to Axis 3) - Water management - Afforestation needs (abandoned farm land)	<i>Agriculture:</i> 1. Payments to farmers in areas with handicaps (e.g. mountain areas, protected areas) – also called “less favoured areas” 2. Agri-environmental payments 3. Animal welfare payments	<i>Forestry:</i> 1. Agro-forestry systems on agricultural land 2. Forest environment payments 3. Restore forestry production potential 4. Support for non-productive investments

¹¹⁶ AE = Agri-Environment
 LFA = Less Favoured Areas
 Natura = EU programme about maintaining biodiversity (see the Chapter on Environment).

Policy Axis	Guideline	Strategic issues	Measure
Axis 3: Quality of life and diversification	Guideline 3: The resources devoted to Axis 3 should contribute to the overarching priority of the creation of employment opportunities in the fields of diversification and quality of life.	Axes 3 & 4 - Balance between rural infrastructure/ renovation/basic services and diversification/local economic development	1. Creation and development of micro enterprises 2. Encouragement of tourism activities 3. Promoting non-agricultural activities 4. Basic services for economy and rural population 5. Village renewal and development 6. Conservation and upgrading of rural heritage
Axis 4: LEADER+	Guideline 4: The resources devoted to Axis 4 should contribute to the priorities of Axes 1 and 2 and in particular those of Axis 3, but also play an important role in the priority of improving governance and mobilising the endogenous development potential of rural areas.	- Choice of delivery system for Axis 3 (top-down or bottom-up) - Balance between local capacity building and implementing local development strategies	1. Promoting local development strategies 2. Public-private partnerships 3. Contributing to innovation, employment and growth in rural areas
Horizontal:			
I. Ensuring consistency in programming	Guideline 5: Elements should take into account: - maximising synergies in and between axes - developing integrated approaches where appropriate - other EU level strategies (organic farming, renewable energy sources, climate change, forestry strategy and Action Plan, thematic environmental strategies)		
II. Complementarity between community instruments	Guideline 6: - Create synergies between structural, employment and rural development policies. - Ensure complementarity and coherence between actions to be financed by the ERDF, Cohesion Fund, ESF, EFF and EAFRD on a given territory and in a given field of activity. - The main guiding principles as regards the demarcation line and the coordination mechanisms between actions supported by the different Funds should be defined at the level of national strategic reference framework/national strategy plan.		

Source: Ooijen (2006).

9.2.3 The current budget

The European Agricultural Guidance and Guarantee Fund (EAGGF – set up in January 1962) is the traditional fund that finances the Common Agricultural Policy or CAP. During the period 2000-2006 it covered both pillars. As of 2007 Pillar I is financed by the European Agricultural Guarantee Fund (EAGF); and Pillar II by the European Agricultural Fund for Rural Development (EAFRD). The figures in Table 9.3 represent commitments from the EAGF and the EAFRD. The EAGF articles are similar to the articles of the EAGGF that traditionally financed Pillar I.

Table 9.3 EU budget for Agriculture and Rural Development - 2007

	Name Budget chapter/Article	Budget chapter / Article / Items	Commitments 2007		
			Billion €	As % of	
				Budget chapter/Article /Items	Total budget
Pillar I	Interventions in agricultural markets	05.02	5.6	10.71	4.53
	<i>Export refunds</i>	05.02.12.01 05.02.13.01 05.02.13.04 05.02.15.01 05.02.15.04 05.02.15.05 05.02.08.01 05.02.09.01 05.02.01.01 05.02.03 05.02.05.01	1.41	2.68	1.13
	<i>Intervention</i>	All other 05.02.xx	3.88	7.41	3.13
	<i>Promotion of agricultural products</i>	05.02.10.01 05.02.10.02 05.02.10.99	0.05	0.09	0.04
	<i>Food aid</i>	05.02.04.01 05.02.04.02 05.02.04.99	0.28	0.53	0.22
	Direct aid	05.03	36.88	70.32	29.73
	Decoupled direct aids	05.03.01	30.20	57.58	24.34
	<i>SPS (Single Farm Payment Scheme)</i>	05.03.01.01	27.92	53.24	22.50
	<i>SAPS (Single Area Payment Scheme)¹¹⁷</i>	05.03.01.02	2.11	4.03	1.70
	<i>Separate Sugar Payment</i>	05.03.01.03	0.17	0.32	0.13
	Other direct aids	05.03.02	6.21	11.85	5.01

¹¹⁷ A simplified Single Farm Payment Scheme for the new Member States; ten of which have implemented it. It involves the payment of uniform amounts per eligible hectare of agricultural land, up to a national ceiling laid down in the Accession Agreements.

	Name Budget chapter/Article	Budget chapter / Article / Items	Commitments 2007		
			Billion €	As % of	
				Budget chapter/Article /Items	Total budget
	Additional amounts of aid ¹¹⁸	05.03.03	0.47	0.89	0.38
Pillar II	Rural development	05.04	9.90	18.87	7.98
	Funds will be distributed among Member States, based on a National Strategy Plan (in compliance with Council Regulation (EC) No 1698/2005. Furthermore, the disbursement of funds is subjected to the Appendix of Regulation No 1698/2005 setting the respective maximum for each policy measure envisaged, as presented in Table 9.2. Moreover, the Regulation commits to proceeding the contributions to the Structural Funds (about 7.7% of the CAP budget in 2006) .				
	External relations	05.05 05.06	0.05	0.10	0.04
	Pre-accession measures in the field of agriculture and rural development	05.05	0.05	0.09	0.04
	International aspects of Agriculture and Rural Development policy area	05.06	0.01	0.01	0.00
	Other	05.07 05.08	-0.13	-0.25	-0.11
	Audit of agricultural expenditure ¹¹⁹	05.07	-0.17	-0.33	-0.14
	Policy strategy and coordination of Agriculture and Rural Development Policy area	05.08	0.04	0.08	0.03
Total		05	52.44	100	42.3

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html.

The funds from the EAFRD are allocated to National Strategy Plans; each that may accentuate different measures. The Funds have the characteristics of a (semi) earmarked transfer payment to Member States (with certain degrees of freedom for the Member States). Consequently the funds are presented in the budget on an aggregate basis. The new European Agricultural Fund for Rural Development (2007-2013) has resulted from the merger of rural development expenditure under the Guarantee Section of the former EAGGF on the one hand; and the Guidance Section of the EAGGF which was part of the Structural Funds on the other hand. Thus, rural development is no longer part of the Structural Funds.

¹¹⁸ This appropriation is intended to cover the payments in accordance with Article 12 of Council Regulation (EC) No 1782/2003, which states: "For the sake of effective control and to prevent the submission of multiple aid applications to different paying agencies within one Member State, each Member State should set up a single system to record the identity of farmers submitting aid applications subject to the integrated system."

¹¹⁹ This item is mainly intended to cover the results of decisions according to Article 17 and Article 30(1) of Council Regulation (EC) No 1290/2005. The principle of the clearance of accounts is provided for in Article 53(5) of the Financial Regulation.

Although the EU places much greater emphasis on rural development than in the past, the current budget still allocates 81% of its funds to the first pillar and only 19% to the second (based on commitments in the 2007 budget – see Table 9.3 above).

Below the budgets for both pillars are discussed in relation to the government functions of stabilisation, equity and allocation.

Pillar I: Market (food) and Income Support

Direct aid clearly forms the biggest portion of the CAP budget (70%). These funds are mainly devoted to ‘decoupled direct aids’ (such as SPS and SAPS)¹²⁰ (58%) and other not-(yet)-decoupled direct aids (12%). In the recent ‘health check of CAP’ the Commission argues for an increased rate of decoupling these payments. Furthermore, the Commission proposes that the rate of “modulation” be increased; this reducing direct payments and transferring the money into the Rural Development budget.¹²¹ Essentially the Direct Payments can be considered as having an equity function; they aim to ‘ensure fair standards of living for farmers’ as was part of the initial objectives of the CAP – See Section 9.2.1. However, these funds also fulfil an allocative function via the incentives that are generated through the ‘cross-compliance’ standards.

Today, 11% of the CAP budget is still devoted to ‘Interventions in agricultural markets’, but the Commission is hinting that it may reduce these funds further.¹²² These interventions mainly consist of production and export subsidies; and serve an allocation purpose. A small part is also reserved for an equity-related food programme, but this is negligible in terms of the total budget for agriculture (0.5%).

Pillar II: Rural Development

On a payment basis, the current budget for Rural Development covers advances from the previous programme (EAGGF)¹²³ and on a commitment basis, from commitments for the new programme (EAFRD). The European Agricultural Fund for Rural Development was established on 1 January 2007 as a single instrument to finance Rural Development Policy. The funds are comparable in size and represent about 19% of the CAP budget.

¹²⁰ The new Member States also have the option to apply a simplified system of direct systems instead of the standard system applied in the old Member States – the Single Area Payment Scheme (SAPS). SAPS involves payment of a uniform amount per hectare of agricultural land. There is no obligation to produce, but to be eligible, farmers must keep the land in good agricultural and environmental condition. Payments under SAPS will be limited by a ceiling as set during the Accession Agreements. SAPS can be applied for three years (with a two-year extension). After that, new Member States must opt for the scheme in force in the EU at the time.

¹²¹ See: European Commission (2007), “Communication from the Commission to the European Parliament and the Council: preparing for the “health check” of the CAP reform”, Brussels, 20.11.2007, COM(2007) 722 final

¹²² Speaking at the annual conference of the National Farmers’ Union, EU Agriculture Commissioner Marian Fischer Boel set out her priorities for next year’s CAP ‘health check’. She asks:

- Should intervention revert to its original purpose as a real safety net – particularly as market prices today are in such good shape?
- Could intervention for most cereals be set at zero; while maintaining intervention for a single cereal (bread-making wheat)?
- Should “set-aside” not be abolished, while finding new ways of preserving the environmental benefits it has brought?
- Milk quotas are already scheduled to disappear in 2015, but should there not be a gradual increase in quotas between now and then to allow a ‘soft landing’ for the sector? This must look at possible measures to help dairy farmers in those regions of the EU – like mountain areas – which depend heavily on dairy production.

See: http://ec.europa.eu/agriculture/healthcheck/index_en.htm.

¹²³ In the past, commitments have been made that still result in payments today.

These programmes are co-financed by the Member States. In practice, this means that the total funds devoted to rural development are larger than the amounts in the European budget.

9.3 Assessment

9.3.1 First Pillar policies

The justification of the market interventions on allocation grounds has often been disputed. During the 1980s and 1990s it became clear that the policy of subsidisation of production and export was unsustainable.¹²⁴ It is clear now (to economists, as well as politicians) that the market intervention policies are not justified on efficiency grounds (see, for example, Wichern, 2004); hence the move away from intervention policies.

On equity grounds, some authors disputed the justification for First Pillar policies as well; although, they do (implicitly) recognise a justification for direct payments from a perspective of path dependency. Buti and Nava (2003:11), for example, conclude that “the shift from price support towards direct aid needs to continue [...] However, [...] there is no justification to carry out these kinds of [redistribution] transfers via the EU budget”. Nevertheless, any change with respect to the Common Agricultural Policy may have large redistributive effects, and these need to be considered. Buti and Nava (2003) also recognise that path dependency matters in relation to the EU budget. Furthermore, the Sapir Report (2003) notes that: “the heavy legacy of the past is such that EU involvement in agriculture cannot be ended abruptly and a phasing-out period should be foreseen.”

Normative assessment of trade policies and market interventions

Given the fact that intervention policies are in place despite their highly inefficient character (see Wichern, 2004), there are arguments for centralising these policies. First of all, there are scale-economies in relation to external (trade) policies when negotiating on the international level (for example in a WTO context). Centralised actions greatly increase the strength of the European Union as a whole when sitting at the negotiation tables.¹²⁵ Secondly, there may be (negative) externalities if Member States develop individual external trade policies. This would negatively affect the function of the Internal Market – see also Section 5.2.3 for a more elaborate discussion on trade and Internal Market policies. Thirdly, it is clear that if Member States would impose these, this would create too much interference with the Internal Market.

¹²⁴ The likely result was of course that the financial incentives offered by the CAP (together with dramatic improvements in farm efficiencies) created devastating market distortions (in the form of huge food surpluses within the EU), and led to the first strong criticisms from the international community. These criticisms were one of the main issues of the Uruguay rounds (1986). Notably the USA and developing countries criticised the EU's Common Agricultural Policy of unfair competition, of creating Third World poverty and causing environmental damage.

¹²⁵ Particularly since many other countries (e.g. Japan and the USA) have some form of subsidising scheme, or pursue a protectionist policy with respect to agricultural sector. An ideal solution is to send a note of thanks for providing cheap imports. However, in the presence of rigidities, and to level the playing field; subsidies to domestic competitors may be an option. To overcome the prisoner's dilemma of protectionism (see Krugman and Obstfeld, 2003) the international community engages in trade negotiations (the most famous in relation to agriculture are the 1986 Uruguay rounds). But in the presence of rigidities, and in view of sluggish negotiations and/or to create bargaining power; subsidies to domestic competitors may remain an option.

Of course, Member States have some different preferences for trade policy, as well as different economic structures. These differences sometimes lead to fierce discussions with respect to the negotiation position of the EU (as, for example, in the Doha round); but still, Alesina et al. (2002) argue that these differences in diversity are not that significant.

Normative assessment of direct payments

With respect to the redistributive objectives of the direct payments, there are possible (dis)economies of scale. Scale economies arise in particular from the inter-regional nature of the redistributive programme; which stems from the fact that different regions have different levels of agricultural activity (in terms of production value; see Table 9.4 on page 168 below). The EU level has the institutional capacity to govern and monitor such inter-regional distributive projects (Molle, 2007). On *interpersonal* distribution, Padoa-Schioppa (1987) states that the Community is *not* well suited to executing distribution programmes. In particular, this is because it cannot assure the detailed administration on the personal level or guarantee the required coherence with income tax and social security systems (see also Buti and Nava, 2003); this is supported by Gros and Micossi (2005).

Furthermore, the income transfers resulting from the CAP are also inter-occupational/sectoral; and possibly serve as a subsidy for agricultural products. When executed by Member States, this could distort competition and may have a negative effect on the functioning of the Internal Market. Income support at Member State level could thus have negative external effects on other countries. However, as direct payments are now decoupled, this link to distort market competition is much more indirect and thereby less prominent; thus weakening the case for centralising direct payments in the future.

The preferences for income support to farmers differ between Member States,¹²⁶ as do the circumstances in which farmers have to operate. This was already pointed out in the Sapir Report (2003). The large heterogeneity of preferences results from a large spread of income, population density and climate, as well as the type of land across the enlarged Union. This makes it very difficult to conduct a single agricultural policy from Brussels. The same is true of interpersonal redistribution. These diversities argue in favour of Member States policies – see also Butti and Nava (2003).

The direct payments not only serve an equity objective, but they are tied to so-called cross-compliance standards; and hence act as a Pigouvian subsidy to meet a range of environmental standards. There are two sets of standards for farmers to observe: Statutory Management Requirements (SMR) and Good Agricultural and Environmental Condition (GAEC). The SMR are derived from 18 European Union (EU) Regulations and Directives. Next to the directives governing wild birds, habitats and nitrates (see also Chapter 8), these SMRs include EU legislation relating to food safety and animal welfare. The other set of standards relates to GAEC where Member States defined national

¹²⁶ "Ensuring that farmers get a fair outcome from the agricultural market, with a decent standard of living, is the second most frequently prioritised aim (37%). It is seen as such by a particularly large segment of Greeks (59%, +22 points compared to EU average), Romanians (57%, +20 points) and Finns (55%, +18 points). Respondents in Denmark (21%, -16 points) and Italy (24%, -13 points) are the least likely to see this as an important priority." European Commission (2007): 'Europeans, Agriculture and the Common Agricultural Policy'; Special Eurobarometer 276 / Wave 66.3 – TNS Opinion & Social; p. 26.

specific standards relating to the maintenance of soil and habitat. Both sets of standards are not issues the EU budget has to be involved in. The SMRs are legal requirements, so subsidising these would be applying the ‘carrot and stick’ approach (as in subsidies and fines). The GAEC relate to local externalities that Member States may find worthy of subsidising. The presence of scale economies seems absent here and as far as spillovers are relevant (for example in relation to the safety of food products), these can be addressed by regulation. If support to GAEC is considered desirable based on inter-regional equity arguments, the Structural or Cohesion Funds would be more appropriate - although we noted earlier that redistributive arguments alone make a weak point for EU involvement (see Chapter 4).

Public choice and other arguments related to First Pillar policies

The historical origins of direct payments are the market policies through which the EU granted support to farmers. The direct payments are a compensation for a reduction of price subsidies. In the past, direct payments were linked to production and had clear externalities because they distorted production. From that perspective, it made sense to centralise agricultural policy. At present 90% of all payments are decoupled (see Grethe, 2008) but the policy is still centralised due to lock-in effects (or path dependency). When a policy has been centralised in the past (for good reasons) it becomes difficult to decentralise it later on (Ederveen et al., 2008). The policy is institutionalised at the central level, and the bureaucracy at the central level does not want to get rid of it (to keep its budget at the current level). The ideal solution (from a normative perspective) would be to abolish market interventions and direct payments altogether. However, the path dependency makes us choose a second-best option.

It is peculiar, however, that such a large fraction of the EU budget ended up only supporting the incomes of less than 2% of the population. Buchanan (1987) explained this seemingly disproportionate influence of certain small interest groups. The explanation being that the small size of the group lessens the problems of collective action (as defined by Olson, 1965); which thus increases the effectiveness of their lobbying activities.¹²⁷ The agricultural sector is a classic example of this phenomenon. On aggregate, each of these programmes leads to a greater loss for the majority compared to the gains of the special interest group. However, the individual voter would hardly notice this: as these losses are shared among the majority, each loser individually only loses a little. But still, if the impact of these programmes were made explicit, the majority of voters may disapprove and turn against the politicians. This last effect is less significant the larger the distance between the voter and the politician - which means that the small lobby group can thus operate more effectively. Politicians seem much more accountable at national level than at European level. Hence, lobby activities by small groups would be more effective at central level.

Furthermore, there is a common pool problem, as some Member States benefit more from the CAP and do not want these payments to be abolished. The strong French objections

¹²⁷ Small interest groups suffer from less ‘free-riding’ problems while collectively lobbying with politicians. This makes it easier to persuade all members to contribute to the ‘club good’ – see also Stiglitz (2000:173).

are a case in point, here – given the share of the CAP budget they receive. See Table 9.4., below:¹²⁸

Table 9.4 EU-15: Share of CAP support and production value per Member State

Member State	Share of CAP budget (%)	Share of production value (%)	Factor (% of production value)
Belgium	2.2	2.9	76
Denmark	3.0	2.9	103
Germany	14.3	15.0	95
Greece	6.6	4.1	161
Spain	13.7	12.5	110
France	23.3	21.6	108
Ireland	4.2	2.1	200
Italy	10.7	16.7	64
Luxemburg	0.0	0.1	40
Netherlands	3.5	6.7	52
Austria	2.2	1.7	129
Portugal	1.6	1.8	89
Finland	1.5	1.0	150
Sweden	2.0	1.5	133
United Kingdom	11.1	8.4	132
EU-15	100	100	

Source: Ooijen (2006) – based on figures from EC, Eurostat, LEI (Agricultural Economic Institute, the Netherlands), May 2004.

As payments will be further decoupled, the payments function as a personal income policy to compensate the loss of price subsidies. The scheme should/would then typically be based on past payments and not on a minimum required income level for living. Bearing this in mind, there are no convincing arguments for centralisation from a political economy and public choice perspective; neither with respect to second-best issues, government failures at the national level compared to the EU level, nor with respect to corruption at Member State level. The common pool argument supports the argument in favour of to decentralising the policies, such that each Member State can give income support to its farmers depending on national circumstances and preferences for income.

Conclusion

Path dependency seems to be the main argument for the current existence of direct payments and market interventions. There is a case for centralising the implementation of market interventions, although this remains a second-best option. The shift from price support towards decoupled payments should continue; although the case for centralisation of the Single Farm Payments is in itself less clear. Both normative and positive analyses argue for decentralisation of such (personal) income support policies. This also applies for the cross-compliance standards.

¹²⁸ Gros and Micossi (2005): "Reform is impossible, however, as long as the budget is determined by an inter-governmental negotiation in which no party defends the overarching European interest. Each member country only cares about its own 'net balance'." Despite the large share of CAP receipts, France is a net contributor to Europe – see Gelauff et al. (2005).

9.3.2 Second Pillar policies

The funds from the EAFRD are allocated to National Strategy Plans that may each accentuate different measures, depending on regional necessities. These funds have the characteristics of a (semi) earmarked transfer payment to Member States.

Below the three primary policy axes are discussed separately. With respect to the horizontal coherence between the policy axes, we discuss also complementarities between the policy axes when relevant. For reasons of logical order of arguments, we start discussing the second policy axis followed by the first and third.

Normative assessment of 'developing rural environment and the country side'

Gelauf, et al. (2005) state that "Whether the costs of the non-market goods and services [multifunctionality] are worth the benefits can be determined better at national or regional level. Moreover, it is reasonable to ask those who benefit from the positive effects to bear the costs, as well." The important question is thus: Who benefits? Some external effects are particularly enjoyed at local level (nice landscape) or are incorporated by local actors (income from tourism). Other external effects are felt by more people in the form of cultural heritage.¹²⁹ Some authors (Rønningen, 2001; Holme, 2001) consider landscape management subsidy schemes as a valuable contribution to landscape and cultural heritage maintenance. However, regional (geographic) disparities are huge, and it is very unlikely that a single policy instrument would be applicable to all regions. Hodge (2001) states "There is no single solution to the problem. Alternative models will be appropriate to different contexts." Gabriel (2000) argues for strong regional involvement, as regional authorities are in closer proximity to the citizens.

All in all, there seems to be a strong case for regional policy-making. But in case European politicians have reasons to support these policies for paternalistic reasons, or reasons of good merit, a Pigouvian-type intergovernmental transfer may be justified.

Normative assessment of improving competitiveness of agriculture and forestry

Strictly speaking, the market failures mentioned in relation to the first axis of Second Pillar policies (see section 9.2.2) only have regional effects and do not involve cross-border spillovers as far as food safety is concerned. However, a link exists with the second axis of CAP: after all, the agricultural sector must be able to survive in order to fulfil its maintenance duties towards the landscape. Given the increased exposure to global competition, there are, however, conflicting objectives: On the one hand, the agricultural sector must strive to achieve increased levels of competitiveness. On the other hand, as Freshwater (2005) points out, an increased intensity of farm outputs

¹²⁹ Following the report "On the protection of the European natural and architectural cultural heritage in rural and island areas" (in 2006), the European Parliament has established a cultural heritage status for European rural areas - European Parliament resolution on the protection of the European natural, architectural and cultural heritage in rural and island regions (2006/2050 INI) P6_TA(2006)0355.
The OECD also speaks of 'cultural heritage' in relation to multifunctionality. See the various contributions at: http://www.oecd.org/document/30/0,3343,en_2649_33779_37630814_1_1_1_1,00.html.

negatively affects the size of the by-products - such as scenic vistas, biodiversity, wildlife habitats, and cultural heritage in the form of traditional country life and farm structures.

The CAP has indeed abolished quantity-related production subsidies; and the focus is on quality and food safety. Also, regulation regarding the use of agro inputs has become much stricter (increasing production costs). Consequently, farmers are looking for greater efficiencies through “precision” farming (higher yields per hectare but on less land) and less waste (fuel, pesticides, fertilizers, etc.) by using better technologies. Furthermore, the CAP aims to support innovative agricultural policies that are focussed on supporting transition and restructuring. Although this may be the most appropriate answer to the problem of conflicting objectives referred to above (see Freshwater, 2005), given the regional disparities, such policies are best formulated at the regional level. A case could be made that regional authorities may lack the resources to support such investment schemes; however, this should primarily be a concern of national governments. In fact, subsidies to the agricultural sector are also provided at Member State level. These subsidies have to respect EU regulations, such as the Community Guidelines for State Aid in Agriculture, in order to ensure a level playing field.

Normative assessment of supporting quality of life in, and diversification of the rural economy/areas

Núñez Ferrer (2007) states that “most academic research and work by the OECD (1996, 2001 and 2003) [...] clearly shows that rural development is better achieved by holistic actions targeting all activities in the rural economy. Even in the most rural of all regions of the EU, employment in agriculture does not match employment in services and industry. The decline in rural areas is generally attributed by the aforementioned studies to the decline of infrastructure quality and services, not farming.” This would suggest that the third axis objectives are precisely what are needed. Nevertheless, yet again there are no real cross-border spillover effects related to the decline of rural economies. The benefits of addressing a negative multiplier effect are primarily enjoyed by the inhabitants of such regions; and secondly by the national governments in terms of lower budgetary pressures in the form of fewer social assistance payments. A link with the second axis can be identified: preserving the rural country life heritage also means preserving its habitability. Still, this would be a weak argument to justify central level involvement; national governments should be able to manage adequately.

A second argument that may be put forward relates to regional convergence. Núñez Ferrer (2007) argues that EU-level involvement is appropriate as long as distributive policies are better performed at the central level. These are however, distributive policies between regions; not nations. In Chapter 5 we mentioned that if convergence concerns an entire (or much of a) Member State, the argument for EU involvement is more persuasive than if it relates to merely a smaller territory.

Public choice and other arguments related to Second Pillar policies

Gelauff et al. (2005) ask whether financing at national level would mark the end of the Common Agricultural Policy. They conclude that this would not be the case. Their argumentation is basically that competition on the Single Market calls for supervision of the ways in which the “multifunctionality” of agriculture is shaped. In particular, they

warn against the creation of unfair competition by Member States “under the guise of multifunctionality”.

Given the strong level of involvement of local and regional decision-makers, an equal sharing of the financial burden (or even a 70/30 split) between Member States’ national budgets and that of the European Union is far from in compliance with the principle of fiscal equivalence; meaning that the high financial competences on EU level are in this case not reflected in decision-making (see Schader and Stolze, 2005). Nuñez Ferrer (2007) points out that budget allocation is affected by political impositions that are not related to the objectives - in particular for the allocation of funds between regions. Grethe (2008) adds that there are no clear criteria for the distribution of the Rural Development funds. As a consequence, the distribution of these funds becomes vulnerable to common pool budgeting. Everyone wants to take as much as possible from the pool - with the particular feature that richer countries probably have more capacity to co-finance the programmes. For these reasons, Grethe (2008) concludes that there is a weak case for the EU to be involved in Rural Development programmes.

Conclusion

A case can be made for EU involvement in the case of supporting certain features of multifunctionality. However, this should be limited to financial support; implementation is a matter best left to the local, regional and national governments. Possible common pool problems argue against EU subsidisation. The case for EU involvement with respect to the other policy axes is even less clear, although there are some complementarities between them.

All in all, the approach of high levels of involvement by regional decision-makers is to be applauded; and Pigouvian-type transfers may be justified on the grounds of externalities and multifunctionality. However, the current relative size of these transfers (in relation to the Member States’ and regions’ own contributions) seems excessive.

9.4 Conclusions

Section 9.3 concludes that path dependency seems to be the main argument for the current existence of direct payments and market interventions. The normative analysis concludes that market policies in agriculture should be abolished, but as long as they are present, they should be part of the activities of the EU; and thus also be part of the EU budget. Arguments in favour of centralisation relate to scale economies in international negotiations, and to negative spillovers from decentralisation negatively affecting the Internal Market. However, the overall consensus on the distorting effects of market interventions and the possible alternatives from regulation strongly question proportionality.

The case for centralisation of direct payments is less clear. Both normative and positive analyses argue for decentralisation of such (personal) income support policies. There are neither clear economies of scale, nor any internalisation of externalities if these activities are conducted at EU level. Furthermore, it was found that there are considerable differences in the preferences of Europeans on the topic of income support to farmers.

Because these policies are to a large extent a transformation of previous market and intervention policies, it is understandable that these policies are part of the EU budget. However, economic reasoning suggests that it is sensible to shift these policies to the Member States in the future. Cross-compliance standards seem not to qualify for budgetary actions by the EU. A first reason is that the Statutory Management Requirements (SMR) are embedded in EU law, in any case. Budgetary support *and* legal requirements would be applying both carrot *and* stick. Second, the Good Agricultural and Environmental Condition (GAEC), typically relates to *national* specific standards relating to soil and habitat maintenance.

Section 9.3 concludes that common pool problems for both Rural Development policies and direct payments constitute a reason to concentrate spending at the Member State level. At the level of implementation, this is already the case; though the principle of fiscal equivalence would suggest matching the financing. Some subsidisation of the EU may be justified, however, based on externality arguments related to non-market by-products (multifunctionality). Furthermore, the involvement of the EU could be useful to create platforms to exchange information, practices and results in these areas; in order for regions to learn from each other. The budgetary implications of this last proposal are very limited.

Table 9.5 summarises the main findings from the assessment made.

Table 9.5 Conclusions on agricultural policies

	Market policies		Direct payments		Rural Development policies
	International trade	Price interventions	Cross-compliance	Personal equity	Allocation
<i>Does the following apply:</i>					
Normative test					
Economies of scale	Yes	Yes	No	No	No
Externalities	Yes	Yes	No	No	Some
Diversity	Limited	Yes	Yes	Yes	Yes
Pro-centralisation					
Limits to system competition	Yes	Yes	No	No	No
Second-best	Yes	Yes	No	Yes	No
Complementarity between policies	Yes (trade)		No	No	No
Lobbying	Yes (but less)	Yes (but less)	No	Yes (but less)	No
Pro-decentralisation					
Self-interest and accountability	No	No	No	No	No
Common pool	No	Yes	Yes	Yes	Yes
Lobbying	Yes	Yes	No	Yes	No
Credibility of co-operation	No	No			
Proportionality	No (regulation)	No (regulation)	No (regulation)	No	?
Consequences for the budget	No	No	No	No	Small (If any)

All in all, CAP-related items in the EU budget are already diminishing in relative terms according to the current Financial Framework. The main reason to uphold the current budgetary outlays is path dependency. The assessment provided strong arguments in favour of severely diminishing the CAP budget in due course.

10 Fisheries and Maritime issues

10.1 Policy and budget

10.1.1 Common Maritime Policy

Background

The idea for a Common Maritime Policy is relatively new. Formerly, maritime issues were mainly dealt with in relation to other policy areas. Maritime issues relate to ports, shipping, environment, food, energy and resources, etc.

In 2006, the Commission initiated a consultation round on the need for an integrated European Maritime Policy; and published a green paper on the Commission's vision for a Common Maritime Policy (see European Commission, 2006c). It's the Commission's view that oceans and seas cannot be managed without an integrated, inter-sectoral and multidisciplinary approach which embraces all aspects of the maritime environment (see European Commission, 2007d). Therefore, the Commission envisages a horizontal approach incorporating all ocean-related issues, since they all depend on, and have an effect on the ocean. Furthermore, there is great optimism among the Commission regarding the "untapped potential of the oceans."

Joined policy-making is supported by a European network for maritime surveillance, maritime spatial planning and integrated coastal zone management. Moreover, there are plans to establish a European marine observation and data network. All those tools should facilitate the coordination between different sectoral policies.

Policy framework

The integrated maritime policy sets its objectives primarily in the following five areas:

1. Maximising the sustainable use of the oceans and seas;
2. Building a knowledge and innovation base for the maritime policy, with the aim of developing a more sophisticated understanding of the impact of human activities on marine systems, scientific research and technology;
3. Delivering the highest quality of life in coastal regions;
4. Promoting Europe's leadership in international maritime affairs;
5. Raising the visibility of maritime Europe.

Measures

The Communication and accompanying Action Plan list a range of concrete actions to be launched during the mandate of this Commission. These actions cover a wide spectrum of issues, ranging from maritime transport to the competitiveness of maritime businesses,

employment, scientific research, fisheries and the protection of the marine environment. The following measures are included:

Measures

1. a European Maritime Transport Space without barriers;
2. a European Strategy for Marine Research;
3. national integrated maritime policies to be developed by Member States;
4. a European network for maritime surveillance;
5. a roadmap for maritime spatial planning by Member States;
6. a strategy to mitigate the effects of climate change on coastal regions (regardless of where their effects occur);
7. the reduction of CO2 emissions and pollution by shipping;
8. the elimination of pirate fishing and destructive high seas bottom trawling;
9. A review of EU labour law exemptions for the shipping and fishing sectors.

Tools

The Action Plan includes also a number of tools, i.e.:

Tools

1. guidelines on environmental regulations (and how to apply them to port development projects) as well as on state aid for ports;
2. legal guidelines on access to the port services market (port concessions, technical nautical services and boating) and on employment in ports;
3. financial support to public-private partnerships to invest in the 'motorways of the sea' – notably from TEN-T and Marco Polo;
4. LIFE+, the financial instrument that is covered by the environmental budget promotes projects that benefit the marine environment;
5. The 7th Research Framework Programme funds European Research Area networks.¹³⁰

Overview of the framework for the integrated maritime policy

Table 10.1 provides a more detailed overview of the policy framework.

¹³⁰ This has already started under the 6th Research Framework Programme with the European Research Area networks (ERA-Nets). It needs to be advanced further, in particular with the so-called ERA-Nets, as well as within the 7th Research Framework Programme.

Table 10.1 Policy framework and organisation chart for a Common Maritime Policy

Main areas	Objectives	Measures / Programmes	
Sustainable use of oceans and seas	1. Improve the efficiency of maritime transport in Europe and ensure its long-term competitiveness;	- European Maritime Transport Space without - Barriers (including funding from MARCO POLO and TEN-T)	- Comprehensive maritime transport strategy for 2008-2018
	2. Increase the number and quality of maritime jobs;	- Promotion of attractive prospects for a life-long career in the maritime clusters - Facilitation of mobility between sea-based and land-based jobs	- Certificate of Maritime Excellence - Exclusions of maritime professions from EU social legislation and working conditions
	3. Facilitate sustainable port expansion and better use of the European ports network against a background of increasing competition for space in and around ports;	- Removal of tax disadvantages for shore-side electricity	- Guidelines on the application of the relevant Community environmental legislation on port development
	4. Achieve a good environmental status of the marine environment in a context of sustainable development;	- Actively support international efforts to diminish air pollution caused by ships - Improve ship-dismantling facilities - Distribution of information on "green" facilities - Certification and award schemes	- Actively support international efforts to diminish greenhouse gas emissions from ships - Pilot actions to react more efficient to climate change in coastal zones
	5. Improve the situation of fishermen at sea and implement an eco-system approach in the Common Fisheries Policy.	- Firm action against discarding, and destructive fishing practices, such as high seas bottom trawling in sensitive habitats	- Firm action against illegal, unreported and unregulated fisheries - Promotion of an environmentally safe aquaculture industry in Europe

Main areas	Objectives	Measures / Programmes	
Knowledge and innovation base for maritime policy	Develop a more sophisticated understanding of the impact of human activities on marine systems, scientific research and technology	- Comprehensive European Strategy for Marine and Maritime Research in 2008 - Launch joint cross-cutting calls under the 7th Research Framework Programme	- Support research on the effects of climate change on maritime affairs - Support the creation of a European marine science partnership
Quality of life in coastal regions	Deliver the highest quality of life in coastal regions	- Prepare a database on Community funding available for maritime projects and coastal regions - Develop a database on socioeconomic data for maritime sectors and coastal regions by 2009	- Propose a Community Disaster Prevention Strategy - Promote the development of the maritime potential of outermost regions and islands - Promote, within the forthcoming tourism initiative coastal and maritime tourism
International maritime affairs	Promote Europe's leadership in international maritime affairs	- Promote cooperation under the enlargement, European Neighbourhood Policies and the northern dimension	- Propose a strategy for the external projection of the maritime Policy through a structured dialogue with major partners
Visibility of maritime Europe	1. Raise the visibility of maritime sectors and build upon best practice to support the further development of an integrated approach to maritime affairs; 2. Ensure continued contacts with, and consultation of stakeholders; 3. Promote Europe's maritime heritage, support maritime communities, their artefacts and traditional skills, and promote links between them that enhance their knowledge and visibility	- Propose annual European Maritime Day - European Atlas of the Seas as educational tool - Annual awards for those contributing to raising the visibility and enhancing the image of the maritime sectors - Publish annual reports	- Making information on Commission proposals on maritime affairs publicly available - Specific awareness campaigns on maritime topics - Organising a series of events bringing together networks of best practice

Source: European Commission (2007a) and European Commission (2007b)

10.1.2 The Common Fisheries Policy

Background

While the fishing sector's contribution to the gross national product of Member States is generally less than 1%; its impact is highly significant as a source of employment in areas which offer few alternatives. In some coastal zone areas (notably the Atlantic coast of Spain, the east coast of Italy and Scotland) 10% of the people are employed in the fishing industry. In many other zones, the fishing sector accounts for between 2 and 10% of all jobs.¹³¹ With a production of over 7 million tonnes of fish in 2003, from fisheries and aquaculture; the EU is the world's second largest fishing power after China.

Over-fishing, which leads to smaller stocks, smaller landings and smaller incomes, is the main threat to the future of fish stocks and the fishing industry itself. The EU fishing sector shares these problems with most other fishing industries in the world. Increased competition due to the globalisation of the market in fish products increases the literal 'common pool' problem. The challenge lies in the fact that greater ability to compete depends on the capacity of the industry to adjust in response to the constraints imposed both by the resource and by market demands.

Financial support has been available from the European Union to assist the fishing sector during its unavoidable restructuring process. This support conforms to the objectives of its economic and social cohesion policy of encouraging economic development in less-affluent EU regions.

Objectives

The Common Fisheries Policy (CFP) is the European Union's instrument for the management of fisheries and aquaculture. As fish are a natural and mobile resource, they may cross territorial waters and can be considered as common property. Notably the opening up of territorial waters by Community Law increases the common pool problem. The CFP was first established in 1983, but the first common measures in the fishing sector go as far back as 1970. They set rules for equal access to Member States' waters except for coastal bands reserved for (small) local fishermen who have traditionally been fishing these areas; and for a common market in fisheries products. A structural policy was set up to coordinate the modernisation of fishing vessels and on-shore installations. Member States recognised that the EU level was the appropriate level to manage fisheries in the waters under their jurisdiction, and to defend their interests in international negotiations.

Today the objectives of the Common Fisheries Policy are to:

- provide for their sustainable exploitation of marine eco-systems (to minimise the impact of fishing activities);
- contribute to an efficient and competitive fisheries industry;
- provide a fair standard of living for those who depend on fishing activities;
- take into account the interests of consumers.

¹³¹ European Commission, see: http://ec.europa.eu/fisheries/cfp/fisheries_sector_en.htm.

Measures

To achieve these objectives the EU has developed a policy framework in four main areas: conservation (and environment); structures and fleet management; organisation of the market; and relations with the outside world. Each area has its specific objectives (see Table 10.2). Notably for the areas of conservation and market organisation, the EU budget is not involved to any great extent. Most measures to achieve the objectives are of a regulatory nature: limitations on catches, fish size, techniques used, etc.; minimum prices; labelling and quality standards; etc.

Concerning the relations with the outside world, there are some relevant budgetary measures, such as the financing of scientific assessments of (global) fish stocks, fisheries management and the control and monitoring of fishing activities. 16% of the fisheries and maritime budget (€ 145 million) is spent on international fisheries agreements.

The majority of the budget is spent via the European Fisheries Fund (EFF), which is the instrument for structure and fleet management. It covers expenditure related to:

- the adjustment of fishing efforts and temporary cessation of fishing activities (loss of income);
- the modernisation of the fishing fleet;
- support of small-scale coastal fishing;
- support for aquaculture, processing, marketing and port facilities;
- collective measures taken which contribute to the sustainable management or conservation of fisheries resources (e.g. partnerships between by scientists and the industry).

Furthermore, as part of the structural funds, the EFF finances socio-economic measures to help those fishing communities most affected by the resulting changes to diversify their economic base.

Overview of the framework for the CFP

Table 10.2 provides an overview of the policy framework.

Table 10.2 Policy framework and organisation chart for fisheries policy

Main areas	Objectives	Measures / Programmes
Conservation and environment	- Protection of fish resources - Especially to limit the capture of small fish - Protection of vulnerable species	- Limitation of catches (TACs) and landings and logbook recordings - Minimum fish and net sizes - Closing of certain fishing areas - 'Selective techniques' - Multi-annual recovery plans - Prohibition of "finning"

Main areas	Objectives	Measures / Programmes
Structures and fleet management	- Help the fishing and aquaculture industries to adapt their equipment and organisations to the constraints imposed by scarce resources and the market - Creating a balance between fishing effort and available fish resources	<i>European Fisheries Fund:</i> - Adjustment of fishing effort and temporary cessation of fishing activities (loss of income support) - Modernisation of the fishing fleet - Small-scale coastal fishing - Socio-economic measures - Support for aquaculture, processing, marketing and port facilities - Collective measures taken by the industry
Organisation of the market	- Maintain a common organisation of the market in fish products - Match supply and demand for the benefit of both producers and consumers	- Common marketing standards for fresh products on quality, grades and packaging - Labelling of both EU and imported fisheries products - Voluntary associations of fishermen to help stabilise markets (POs) - Minimum prices below which fish products cannot be sold - Financial support to POs - Rules for trade with non-EU countries.
Relations with the outside world	- Set up fisheries partnerships agreements - Negotiate at the international level within regional and international fisheries organisations for common conservation measures in deep-sea fisheries	- Move from Access Agreements to "Partnership Agreements" - Scientific assessment of fish stocks - Fisheries management - Control and monitoring of fishing activities

Source: European Commission, see http://ec.europa.eu/fisheries/cfp_en.htm.

10.1.3 The budget

The budget for Fisheries and Maritime Affairs is presented in Table 10.3.

Table 10.3 Budget for Fisheries and Maritime Affairs 2007 (commitment-based)

Name Budget chapter/Article	Budget chapter / Article	Commitments		
		Billion €	As % of	
			Budget chapter / Article	Total budget
Administrative expenditure of Fisheries and Maritime Affairs policy area	11.01 11.49 11.AWBL-01	0.04	4.00	0.03
Fisheries markets	11.02	0.02	1.65	0.01
<i>Intervention in fisheries products – new measures</i>	<i>11.02.01</i>	<i>0.02</i>	<i>1.74</i>	<i>0.01</i>
International fisheries and law of the sea	11.03	0.21	21.82	0.17
<i>International fisheries agreements</i>	<i>11.03.01</i>	<i>0.19</i>	<i>20.64</i>	<i>0.16</i>
Governance of the common fisheries policy	11.04	0.01	0.61	0.00
European Fisheries Fund (EFF)	11.06	0.57	60.74	0.46
<i>Operational technical assistance</i>	<i>11.06.11</i>	<i>0.00</i>	<i>0.42</i>	<i>0.00</i>
<i>Convergence objective</i>	<i>11.06.12</i>	<i>0.43</i>	<i>45.28</i>	<i>0.34</i>
<i>Outside convergence objective</i>	<i>11.06.13</i>	<i>0.14</i>	<i>15.04</i>	<i>0.11</i>
Conservation, management and exploitation of living aquatic resources	11.07	0.05	5.21	0.04
Control and enforcement of the common fisheries policy	11.08	0.06	5.97	0.05
Fisheries Affairs	11	0.89	100	0.72

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/nmc-titleN15AFA/index.html.

Maritime policy mainly involves regulatory activities, and its joint budget with fisheries is in practice only devoted to fisheries affairs (see Table 10.3). Those measures that will require funds are mostly distributed among other policy areas that are interlinked with the sea and the coastal environment. For example, actions that are related to transportation, such as the Marco Polo II program or the TEN-T Motorway of the Sea projects, fall under the budget section of Energy and Transport. LIFE - the EU level financial instrument that is covered by the environmental budget - promotes projects that benefit the marine environment. Furthermore, some cases (e.g. coastal zone protection) may require considerable additional budgetary resources.

10.2 Assessment

10.2.1 Common Maritime Policy

Many topics covered by the Commission's Action Plan may be dealt with via regulation. Below we focus on the selection of topics that is most likely to involve budgetary outlays.

A European Maritime Transport Space without barriers

The development of the Maritime Transport Space without barriers is likely to result in congestion being relieved on inland waterways; in lower CO₂ emissions and increased economic activities in European port areas. Notably the first two consequences involve trans-European spillovers that justify EU involvement. Partly this entails regulation; partly budgetary outlays.

Tools for establishing a European Maritime Transport Space

The idea of the European maritime transport area, amongst other things, aims to eliminate or reduce the numerous administrative procedures which apply to goods shipped by sea between European ports. Until recently there was no difference between intra-European shipping and shipping from other countries which meant that sea transport from, for instance, the Netherlands to Belgium involved disproportionate amounts of paper work.

Beside the administrative reform mentioned above, the Maritime Transport Space without barriers programme aims to set up a framework enabling European ports to achieve sustainable development and to obtain the investment they need for modernisation. The ports should be able to attract new customers and provide real intermodal solutions for European carriers. Furthermore, the Action Plan also envisages greater use of sea routes for goods transport ("Motorways of the Sea"). The latter requires investments from the programmes TEN-T and Marco Polo.

The development of the transport space, and notably the Motorways of the Sea, involves mainly local investment that Member States benefit from in terms of increased accessibility and trade opportunities. Nevertheless, the spillovers mentioned above are likely to result in underinvestment by Member States. Furthermore, the extent to which these local investments result in growth depends on the extent to which other Member States make similar investments. This is a typical example of a network effect that requires a certain critical mass before private investments (or Member State investments) become viable. In that case, subsidising the establishment of such a critical mass is an issue related to economies of scale and is therefore an argument in favour of EU spending.

A European Strategy for Marine Research

The purpose of a European Strategy for Maritime Research is to provide the scientific knowledge and advice necessary to pursue the other objectives of maritime policy. This will be achieved by establishing cooperation between streams of marine and maritime research that have until now developed separately. It aims to further develop cooperation between Member States; with a view to enhancing synergies between national research efforts and reaching the necessary critical mass of research funding where necessary. This

notably involves the Research Framework Programmes (element of cooperation – see Chapter 6).

There are strong arguments for the EU to support cooperation in research fields. In cases where that field of research directly contributes to other policy areas, as well; this is an additional argument for financing research cooperation.

Environment

The substitution of road transport for maritime transport already has the effect of reducing CO₂ emissions. In addition, the potential for technological developments to reduce CO₂ emissions in shipping is larger than with road transport. As has been argued in Chapter 8, there are good reasons (spillovers, scale economies, and lack of heterogeneity) for the EU to support this kind of technological development.

In its Action Plan, the Commission specifically mentions that its strategy to mitigate the effects of climate change on coastal regions is in place regardless of where these effects occur. As mentioned in Chapter 8, if central action is warranted to address the consequences of climate change, this is done in terms of a solidarity (or equity) argument. The structural character of this support makes it highly suitable to be financed via the Cohesion programmes.

10.2.2 Common Fisheries Policy

Conservation and environment

Typical for the fishing industry is the ‘tragedy of the commons’ (or common pool problem) as described by Hardin (1969). It is even so typical for the fisheries industry that it has also become known as the ‘fisheries problem’ (see Gordon, 1954). The problem essentially is as follows: When resources form a common pool, there is no incentive for any individual user to limit his/her exploitation of that resource; and it will deplete too quickly as a result. The problem arises since every fish caught by fisherman A imposes a cost on fisherman B in the form of lower chances of catching a fish. As with any externality, this one is also related to a lack of any property rights. Daw and Gray (2005) argue correctly that only the assignment of property rights or regulation can prevent the depletion of the resources.

Merely the fact that property rights and externalities are lacking does not justify EU intervention. However, if Member States would be left alone to regulate, the market failure (externality) would simply come into play at the level of national governments, as well (the ‘selection principle’, Sinn, 2003); after all, multiple countries are all fishing the North Sea together. Consequently, Alesina et al. (2002) argue in favour of centralisation of regulation in relation to fisheries policy because of the cross-border nature of the externality.

In addition, it can be argued that there are clear scale economies in centralising activities in monitoring and control of fish stocks and the actual level of catches.¹³² Furthermore,

¹³² Even though the European Court of Auditors (2007) recently published a rather negative feedback on the reliability of the centrally-collected data on fish caught.

since the fisheries problem is in fact supra-European, there are scale economies in international negotiations.

As a relatively small group, the fisheries industry is able to form a strong lobby. Similar to farmers, the small size of the group lessens the problems of collective action (as defined by Olson, 1969); which increases the effectiveness of their lobbying activities. Contrary to the budget-related lobbying of farmers, fishermen would initially lobby for an increased fish quota. Where lobbying for income transfers may raise opposition from voters, turning a blind eye in relation to fish quotas would probably not have such consequences; on the contrary. For example, Daw and Gray (2005) quote Pirzio-Biroli (Chef de Cabinet to Franz Fischler): “politicians ... are faced with the fishing lobby and there are always elections taking place. As a result, politics always ‘gets in the way’ of sustainable fisheries management. Economic hardship and unemployment caused by cutbacks are high-profile issues, eagerly reported by the Press and easily blamed on the actions of a Fisheries Minister.”

The credibility of cooperative efforts by Member States to deal with the fisheries problem is unlikely. Firstly, because of the selection principle as described above (see also Jensen, 1999); secondly, because national governments run the risk of being captured by lobby groups, and thus lose sight of the common objectives; and thirdly, because there is too much heterogeneity in terms of the size of the fisheries industry (both in absolute terms, as well as relative to GDP). This will obstruct agreement on common terms. The problem is illustrated by the numerous cases that Portugal and Spain brought for the European Court of Justice during the early ‘90s in order to change the quota distribution (see Jensen, 1999).

Structures and fleet management

Unmistakably, the total allowable catch restrictions will lead to a shrinking fleet and loss of jobs. Particularly in areas that have very monotone industry structures (like many coastal fisheries villages); this may have tremendous consequences for living standards. Compensating the losers of the policy seems justified on Pareto efficiency grounds (see also Chipman, 1987).¹³³ Simply providing income support, however, creates dependency; and may lead to future path dependencies that will be difficult to change (see the example of the CAP). Furthermore, one should be aware that the policy imposed is to safeguard a sustainable fisheries industry in the first place; after all, overcapacity detracts from the profitability of the fishing industry. When applied, income support should be temporal to absorb sudden shocks in living standards for those involved and to bring the fleet capacity in line with the quotas. This could be done via one-time buy out arrangements - where fishermen are paid ‘to abandon ship’. In addition, funds can support socio-economic restructuring of regions that are typically affected by the catch restrictions.

The current budget also finances fleet modernisations. The reason to support such investments are questionable; particularly since, as Jensen (1999) points out, there is a

¹³³ Movement from one allocation to another that can make at least one individual better off without making any other individual worse off is called a **Pareto** improvement. An allocation is Pareto efficient or Pareto optimal when no further Pareto improvements can be made. Allowing for a compensation mechanism increases the Pareto threshold. compensations.

contradiction in simultaneously funding the modernisation and construction of vessels, and the funding of decommissioning procedures.

Since the losses are imposed by the centre (for the benefit of all/many), it seems only logical that the centre provides the means of compensation. From that perspective, the compensation payments fit the convergence objective of Cohesion Policy. In Chapter 4 we argued that EU involvement is justified on many grounds, e.g. complementarity of policies, second-best issues, and solidarity between Member States. This argument relates to both the compensation payments for fishermen, as well as to structural support to the region.

Arguments related to scale economies or spillovers seem to be absent, however. Contrary to Cohesion Policy in general, there are no scale economies involved, since it mainly concerns localities, not entire nations (or very large regions). Furthermore, local governments have much more insight in the heterogeneous local structures, needs and opportunities. Moreover, spillover effects of regional economic decline in coastal areas typically do not have a cross-border character.

When compensation payments assume a more permanent character (such as the direct payments within the CAP) there is a danger of the central government being convinced by lobby groups (as with the CAP). The financing of fleet organisation may suffer from similar drawbacks. For example, Jensen (1999) explains that “the structural policy maintains the subsidies for construction of fishing vessels, although the Commission has suggested cancelling these subsidies.” The lobbying pressures may also enter EU political decision-making via the Member States as a result of common pool problems. This may give rise to a potential danger that the lobby of fishermen strikes a deal with the national government to strategically support the industry via subsidies in order to preserve its size and thereby its claim on EU subsidies or fishing quotas (see Jensen, 1999). A prohibition/limitation of subsidies by Member States could prevent this.

Organisation of the market

It was mentioned above that a contradiction exists between the conservation objective and the support to modernisation and construction of the fleet. A similar contradiction exists between the conservation objective and the regulation of minimum prices. The experiences from the CAP have shown that market interventions lead to excessive supply. If prices are not sufficiently high to cover the costs, then obviously supply is excessive and needs to shrink. This would fit the conservation objective perfectly. The price support also runs counter to the aim of “matching supply and demand for the benefit of both producers and consumers”. This last policy seems rather odd to begin with; there is no reason to suggest that the market would not be perfectly suited to supply and demand being brought together.

For the rest, there is little wrong with other regulatory policies aiming to improve the Single Market for fish. These include:

- maintaining a common organisation of the market in fish products;
- common marketing standards for fresh products on quality, grades and packaging;
- labelling of both EU and imported fisheries products;
- rules for trade with non-EU countries.

Single Market policies typically fall within the reach of the EU – see Chapter 5.

10.3 Conclusions

Maritime Policy

The Maritime Policy focuses on various issues that, in many cases, can be dealt with via regulation or coordination. In some cases, however, there seem to be arguments for budgetary support from the centre.

The Maritime Policy agenda of the Commission has a cross-cutting approach involving multiple aspects of marine management: notably transport, research, and environment issues. There are several arguments for the EU to be involved in a budgetary capacity. With transport there are clear spillovers (savings in congestion in land transport) and scale economies (the ‘motor-ways of the sea’ *network*). With environment, the argument of spillovers is particularly relevant when addressing the causes of climate change. Notably there are gains to be made in terms of reduced CO₂ emissions per transported good when transported by ship (this is also a scale economies argument). Furthermore, the potential for making engines cleaner are today much larger in maritime transport technologies than with land transport technologies. This may, however, also require some support for research; the element of sponsoring cooperation (i.e. research networks) is highly relevant here.

Table 10.4 summarises the main findings from the assessment made.

Table 10.4 Conclusions on Common Maritime policies*

	Transport	Research	Environment
<i>Does the following apply:</i>			
Normative test			
Economies of scale	Yes	Yes	Yes
Externalities	Yes	Yes	Yes
Diversity	No	No	No
Pro-centralisation			
Limits to system competition	Yes	-	-
Second-best	-	-	-
Complementarity between policies	Yes	Yes	Yes
Lobbying	Yes	No	-
Pro-decentralisation			
Self-interest and accountability	No	No	No
Common pool	No	Yes	Yes

	Transport	Research	Environment
Lobbying	-	-	-
Credibility of co-operation	No	No	No
Proportionality	Yes	Yes	Yes
Consequences for the budget	Yes	Yes	Yes

* With respect to international negotiations, we refer to Chapter 5.

Fisheries

The fisheries problem is a typical example of supra-national externalities. Controlling the fisheries problem asks for central regulation on the maximum tonnage of fish caught. Subsequently, the centre needs to monitor and enforce such regulation to prevent ‘cheating’ by Member States whose politicians are susceptible to lobby groups and activities. There is little need for budgetary measures. However, the socio-economic impact of regulation may require some (budgetary) compensation mechanisms.

The arguments above indicate that certain compensation payments from the centre seem justified on grounds of equity (or solidarity). However, this might promote that governments would be convinced by lobbyists. The dangers of lobbying seem less likely to apply to structural regional support, but as mentioned in Chapter 4, once particular interest groups benefit from such support, the local government runs the risk of being won over by them. The lobbying for structural support will then potentially be channelled through politicians.

Compensation payments and structural support should be strictly subjected to limited durations to prevent going down highly inefficient and irreversible paths. Compensation payments should preferably be one-off payments. Structural support should be strictly limited up to the point where a region has successfully caught up (no phasing-out arrangements).

Market policies to improve the Single Market are well within the Commission’s responsibilities; market interventions are far from it.

Table 10.5 summarises the main findings from the assessment made.

Table 10.5 Conclusions on Fisheries policies*

	Conservation and control	Structures and fleet		Organisation of the market	
		Compensation	Regional	Single Market ¹³⁴	Price interventions
<i>Does the following apply:</i>					
Normative test					
Economies of scale	Yes	No	No	Yes	-
Externalities	Yes	No	No	Yes	-
Diversity	Yes	Yes	Yes	Yes	-
Pro-centralisation					
Limits to system competition	Yes	-	-	Yes	-
Second-best	-	-	-	-	-
Complementarity between policies	Yes	Yes	Yes	Yes	
Lobbying	Yes	Possibly	Possibly	Yes	-
Pro-decentralisation					
Self-interest and accountability	No	Yes	No	No	-
Common pool	No	Yes	Yes	No	-
Lobbying	-	Yes	Yes	No	-
Credibility of co-operation	No	-	-	No	-
Proportionality	No (regulation)	Yes	Yes	No (regulation)	No
Consequences for the budget	No	Yes	Yes	No	No

* With respect to international negotiations, we refer to Chapter 5.

¹³⁴ See Chapter 5 for argumentation.

11 Infrastructure/Network industries

11.1 Policy and budget

Strictly speaking, network industries cover energy, transport, telecommunications and the postal sector. Network industries refer to infrastructures that are characterised by network effects. These network effects can give rise to considerable scale economies, causing market failures such as market power and/or absent markets. The latter is the result of large sunk costs in combination with failing capital markets. Moreover, access to networks is often considered a basic right. The industries for energy, telecommunications and postal services are all characterised by so called ‘Universal Service Obligations’, mostly for incumbents. Moreover, in many Member States most roads are freely accessible. The combination of these characteristics and (large) sunk costs often calls for public investments (e.g. in roads, railways, electricity networks, etc.). Furthermore, such large infrastructural projects often involve extensive administrative procedures in relation to national or regional spatial planning policies. In cases where these networks extend across national borders, both public investment and the administrative procedures require stimulation and/or coordination from the central level; although the bulk of the finance comes from national budgets.

The public investment argument applies less to telecommunications and postal services; typically because (cross-border) externalities are smaller and have less of a European dimension (compared to energy and transport). Consequently, budgetary activities in the postal sector are very limited, as are outlays at the national level. The budget mostly consists of administrative expenditures. For telecommunications, a relatively large amount is allocated (mostly in relation to the i2010 programme). However, the bulk of spending is allocated to research in ICT. In fact, ICT accounts for the largest part of the FP7 programme (about € 9 billion). Research in ICT is not really related to the problems arising from network effects. The rationale for this appears to be more related to competitiveness than to explicit market failures: “The objective of the Information and Communication Technologies (ICTs) theme of the cooperation programme is to enable Europe to master and shape the future developments of ICTs so that the demands of its society and economy are met.” As is typically the case in the economy, it can be questioned whether the market mechanism will be able to provide what society requests. Given the nature of the industry, some coordination of activities may prevent duplication, for instance in the area of support for R&D as discussed in Chapter 6. The other activities that are financed relate mostly to ensuring the proper functioning of the Internal Market, for example, by promoting certain standards to facilitate cross-border cooperation.

The area of transport can be subdivided in transport by air, by road, by rail and via waterways. For all these sub-sectors, the issues are to a large extent the same as in the

case of telecommunications: coordination (such as promotion of standards, safety regulation, etc.) is likely to enhance the functioning of the Internal Market, which in the end will benefit firms and consumers alike. Hence, policy largely consists of regulation, and actual spending is quite limited; except for specific cross-border problems of network interconnection (so-called Trans European Transport Networks or TEN-T)¹³⁵ and for R&D. Examples of TEN-T projects that focus on bottlenecks relating to cross-border infrastructures include high-speed railway axes and multimodal axes. Moreover, pan-European projects, like Galileo, are also financed through the Transport and Energy budget.¹³⁶ The transport-related funds of the FP7 programme (€ 4.1 billion) focus largely on environment-related technologies (clean engines, alternative fuels, etc.). In addition, the FP7 transport programme stimulates research into safety and technologies in infrastructural design and architecture, and on support to the European global satellite navigation system (see also Table 8.4 in Chapter 8).

Also in the field of energy, actual spending is limited to the border-crossing infrastructural bottlenecks in Trans European Energy Networks (TEN-E) and R&D; while most policy relates to the drafting and implementation of regulation that is typically aimed at improving the working of the Internal Market. The TEN-E budget amounts to about € 20 million, which is spent mainly on supporting feasibility studies; hence the budget is much smaller than for TEN-T. Eligible projects relate to electricity and gas transmission, LNG facilities and gas storage programmes. Projects need to be supported by the Member States involved. The Trans European Energy Networks are integral to the European Union's overall energy policy objectives: increasing competitiveness in the electricity and gas markets, reinforcing the security of supply, and protecting the environment (in relation to climate change mitigation). Notably the latter objective is specifically targeted via the FP7 energy programme (€ 2.3 billion). It finances research into the development of renewable energy sources, clean energy production, technologies to improve energy efficiency, as well as policy-making (see also Chapter 8 for a more elaborate discussion of environmental policies).

In total, the EU spends about € 3.2 billion (about 2.5% of the EU budget) on network industries. About € 1 billion is spent on R&D in ICT. For the rest, the outlays for postal services and telecommunication are minimal. About € 1.8 billion is spent on transport and energy. This includes expenditure on TENs (about € 840 million) and excludes expenditures through the Structural and Cohesion Funds (unknown amount as projects initiated at Member State level are co-financed). According to Table 11.1, about € 230 million are spent on R&D in transport and energy, but this does not include € 460 million from the research budget for transport and energy; nor does it include € 260 million for research into fusion energy (EURATOM) (see also Chapter 6).

The main categories financed within Transport and Energy are:

- inland, air and maritime transport spent on aviation, maritime, railway and transport safety, on the Marco Polo programme and on the Galileo programme;

¹³⁵ Technically, TENs use the entire EU or the continent as their reference. However, TENs are mainly financed nationally (bilaterally, trilaterally, quadrilaterally, etc.), and the EU can only supply some pre-financing at the design phase and a minor contribution to the genuine infrastructure costs. As such, the EU addresses the 'missing links' that are a remnant of thinking nationally about networks.

¹³⁶ Galileo is a very specific case, as the initial public-private partnership did not materialise.

- conventional and renewable energy, mostly spent on intelligent energy;
- nuclear energy, mostly spent on nuclear decommissioning;¹³⁷
- research related to energy and transport, almost evenly split between these two, with a focus on durable energy within energy.

A further specification is provided in Table 11.1.

Table 11.1 EU budget on network industries

Name Title/Budget chapter/Article	Title / Budget chapter / Article	Commitments		
		Billion €	As % of	
			Budget chapter / Article	Total budget
Energy and Transport	6	1.80		1.45
Administrative expenditure of Energy and Transport policy area	06.01	0.13	7.13	0.10
Inland, air and maritime transport	06.02	0.26	14.50	0.21
Trans-European networks (TEN)	06.03	0.84	46.64	0.68
<i>Transport (TEN-T)</i>	06.03.03	0.82	45.46	0.66
<i>Energy (TEN-E)</i>	06.03.04	0.02	1.18	0.02
Conventional and renewable energies	06.04	0.07	3.64	0.05
Nuclear energy (decommissioning)	06.05	0.26	14.70	0.21
Research related to energy and transport	06.06	0.23	13.04	0.19
Security and protection of energy and transport users	06.07	0.01	0.36	0.01
Information Society and Media	9	1.43		1,2
Administrative expenditure of Information Society and Media policy area	09.01	0.13	9.03	0.10
i2010 – Electronic Communications Policy and Network Security	09.02	0.02	1.57	0.02
i2010 – Content and Services	09.03	0.11	7.56	0.09
i2010 – Cooperation — Information and Communication Technologies (ICTs)	09.04	1.04	72.23	0.83
Capacities — Research infrastructures	09.05	0.06	4.31	0.05
i2010 – Audiovisual Policy and Media programme	09.06	0.08	5.30	0.06
Expenditures on Postal Sector Policy		P.M.		
Network industries	6 & 9	3.23		2.6

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/nmc-titleN13E68/index.html; and http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/nmc-titleN1529D/index.html.

¹³⁷ Within the budget for research, a further € 214 million is allocated to research into fusion energy; € 49 million to nuclear fission and radiation protection; and € 121 million for cooperation in the field of energy (all for 2007). As this concerns research, these appropriations are not discussed here but in the chapter on research.

Commitments in the category for Trans European Networks (TENs) for the period 2007-2013 amount to € 8.17 billion (€ 8.1 billion for transport and € 155 million for energy). For 2007, € 22.2 million is allocated for energy and € 817 million for transport. FP7 has reserved 6.4 billion for research on transport and energy for the period 2007-2013 and €2.8 billion on EURATOM for the period 2007-2011. Additional expenditures on energy and transport are made through the regional and cohesion funds. These expenditures are (implicitly) dealt with in Chapter 4.

11.2 Assessment

Many network industries exhibit increasing returns to scale *in production*: unit (average) cost decreases with increasing scale of production. Often incremental costs are negligible (Economides, 2004). A common and defining feature of network industries is the fact that they exhibit increasing returns to scale *in consumption* as well; hence they are commonly called network effects. The existence of network externalities is one of the key reasons for the importance, growth, and profitability of network industries and the “new economy”. A market exhibits network effects (or network externalities) when the value to a buyer of an extra unit is higher when more units are sold, everything else being equal.

The potential impact of lobbying at European level may be more limited than at the Member State level due to, first of all, the role of national government shareholding in some key market players – which is still important, notably in the telecommunications, postal and energy sector; and secondly, the diversity of national government policies, which may affect the effectiveness of lobbying at European level due to lack of a specific common interest. This may be somewhat counteracted by the concentrated nature of the industries.¹³⁸ For transport (except railways) these issues are less relevant.

The following paragraphs discuss the four thematic fields in more detail. Much of the budget is related to R&D, we do not discuss this here since this would merely result in a repetition of the arguments put forward in Chapter 6. For energy and partly for transport, the R&D efforts are specifically targeted at environmental objectives; here we also refer to Chapter 8.

11.2.1 Postal sector

Normative arguments

Activities in the postal sector are limited and focus on the liberalisation of national markets. Cross-border externalities do not appear to be present. Economies of scale and scope are limited to specific parts of the value chain (SEO, 2003). Most issues can be addressed at Member State level. Specific aspects that require some form of coordination

¹³⁸ EurElectric, ETNO (telecoms), the postal union(s) and the railways are all very noticeably present in Brussels.

are already addressed through international organisations, such as the UPU (ECORYS, 2005a).

11.2.2 Telecommunications

Normative arguments

Since the budget for telecommunication is mostly spent on R&D into ICT, there is little left to analyse here in relation to the current budget. Below we do discuss the possible need for supranational coordination / regulation in order to fully benefit from the inherent scale economies in communication networks.

In telecommunications, one of the main drivers for European level regulation concerns national regulators that are less capable of adequately regulating an industry that is becoming more and more transnational than an authority at the supranational level (Bartle, 1999). Experience from the US also suggests that a specialised European regulator may be required. In the development of competition in the US, for example, the Federal Communications Commission (FCC) has gradually taken over control of competition issues from the state authorities (see Worthy and Kariyawasam, 1998).

A very important driver is the nature of the sector that is becoming more and more globalised, which creates a rationale for a common regulatory framework across countries. This is mostly due to the cross-border effect, where transnational differences in regulatory regimes mean that international services cost much more than national services. If one follows the logic of essentially a single set of networks that is being created, the establishment of a supranational authority seems logical. The role of such an authority would be mostly related to enforcing standardisation and regulating the activities of businesses within the sector (Turner, 1995).

11.2.3 Transport

Normative arguments

Transport services cover road, air, water, and rail transport. In the past, railway companies were considered as natural monopolies, but nowadays the roles are more limited. A network still benefits of scale, but maintenance and supervision could be handled by one authority that permits others to use the network. For air transport, air traffic control is an activity which exhibits clear benefits of scale; but for other transport channels like roads, waterways and canals there are no benefits of scale.

Externalities do exist. De Borger and Proost (2008) indicate the spillovers if citizens of one Member State use infrastructure in another Member State and do not pay a user fee. In such a case Member States have fewer incentives to provide sufficient capacity. Extreme cases concern infrastructural projects linking two or more Member States. As linkages between Member States increase in importance, international infrastructures become more and more important. Even for neighbouring Member States, the interests of specific infrastructural projects diverge. If countries can set a user fee, they have the incentive to overcharge foreign users. Even if all users are charged the same fee, the Member State's own citizens can be compensated through subsidies or tax credits. If consumers have alternatives, the risk of overcharging is limited. If there are virtually no

alternatives, EU involvement appears to be warranted. For serial transport, for which alternatives are present within the same class of infrastructure; negative externalities are limited. This is often the case for road transport. For railways and canals (parallel transport), the alternatives are much scarcer. De Borger and Proost (2008) suggest EU funding for these projects to overcome the under-provision of infrastructure.

In summary, there are arguments in favour of security related tasks at EU level, notably for air transport and in favour of co-financing bottlenecks in infrastructure - especially in the field of (high-speed) railways.

Public choice and other arguments

International transport corridors are essential for the free movement of goods, services and labour. Under-provision harms free movement. This could justify a role for the EU. With substantial EU funding, there is the risk of common pool budgeting. Member States develop projects which are not really necessary. Co-financing by Member States and contributions of Member States to the EU based on user fees could limit these potential problems. In practice, TEN plays such a role - both for transport and energy by providing only a limited degree of co-financing by the EU.

National governments cannot credibly commit to addressing these issues (due to the presence of cross-border externalities, leading to free-riding, and potentially scale effects), in which case co-financing by a supranational authority - the EU - is warranted.

11.2.4 Energy

The European Union's overall energy policy objectives are: to increase competitiveness in the electricity and gas markets; to reinforce the security of supply, and to protect the environment (in relation to climate change mitigation). The latter is analysed in Chapter 8; here we focus on the other two objectives: increasing competitiveness and reinforcing the security of supply.

Normative arguments

As indicated above, some parts of the value chain in energy provision, notably the transmission and distribution channel, have characteristics of a natural monopoly with economies of scale and scope (Albrecht, 2006). The competitiveness of the European Energy sector could possibly benefit if network interconnection resulted in larger (cross-border) networks enjoying more scale economies in energy storage and transport. Furthermore, network interconnection contributes to the integration of the markets for the production and supply of energy, which would further enhance the competitiveness of the industry. The integration of networks may require involvement of the central government because the benefits from investments (in production and network capacities) are likely to spill over to other countries due to the integration of networks and markets. Also, the costs of underinvestment in maintenance (which may cause blackouts) will spillover to other countries. Consequently, as energy networks become more and more integrated, the role for supranational action becomes stronger.

Furthermore, the physical integration of networks would be less beneficial if the integration of markets for energy trading and supply lagged behind. When regulated by

national governments, entry of foreign competitors may be limited because networks are not accessible due to market dominance, weak / discriminating regulations, or because of the use of a different fuel mix (e.g. in electricity generation) or different qualities in combination with scarce conversion capacity (in relation to gas). This is not merely a case of failing governments; it is also a result of heterogeneity with respect to energy policy at the Member State level. For example, this concerns, the fuel mix (for generation and in terms of the prevalence of natural gas) and/or the choice of regulation model,¹³⁹ although the latter is changing.¹⁴⁰ Gual (2008) argues that the gains of trade might be outweighed by welfare losses, in particular if the wrong regulation model is chosen. Consequently, the integration of national markets for network industries should not be a goal in itself. The kind of integration of network industries affects the distribution of the gains of integration. Gual (2008) argues for a design of integration which addresses country-specific strategic interests. As a result, harmonisation could be the dominant regulation and an integration strategy in some industries; while in other industries national regulation could be the prominent policy. Thus the role of the EU varies for each network industry depending on the degree of diversity between the Member States (see also Armstrong and Sappington, 2006). Albrecht (2006) also argues for a close match between the regulator and the local market conditions because preferences and circumstances between Member States differ. Laffont and Pouyet (2004), on the other hand, argue that in the absence of discretionary power for regulators, coordination at the supranational level provides for regulation with better incentives for firms operating across borders.

All in all, there are various arguments in support of *coordination* of energy regulation, as well as for financing cross-border interconnection. As a result of more interconnection, the spillover argument in relation to network security may argue in favour of a transfer of spending policies from Member States to the centre, provided there are reasons for public spending in the first place. The quality of networks is essential in relation to security of supply; the rolling blackout that hit parts of Western Europe in 2006 points to the danger of cross-border externalities in integrated markets. The quality of networks is, however, typically a responsibility of the Transmission (and/or) Distribution System Operator(s) – TSOs and DSOs. In case of disruptions in supply, users are protected by rules compensating for blackouts. These rules signal to TSOs and DSOs that they have to invest optimally in capacity to prevent these disruptions.¹⁴¹ If there is a role for the EU in this area, it is limited to coordinating or harmonising these rules at EU level.¹⁴² Still, these rules may fail if the disruptions are caused in another country. Possibly the administrative and legal burden of cross-border compensation claims may be so high that investing in

¹³⁹ Albrecht (2006) presents an overview of the various institutional arrangements with respect to regulation in the electricity market for the Member States. In some Member States, the regulator in the electricity market has no role with respect to competition; in others, it is only advisory, but there are also countries in which it has real power. In some countries, the wholesale market is monitored by the regulators; in others by the competition authority; in others it is not monitored at all.

¹⁴⁰ The NRAs (National Regulatory Authorities) are organised in EU-wide networks that become ever more intrusive and 'communitarian'; behind the diversity that Albrecht (2006) mentions, there were 'local turf wars', that are slowly softening everywhere. Also, in energy, there are radical new proposals from September 2007 and they further tighten regulatory cooperation. An EU Agency (ACER) is also proposed, largely controlled by the NRAs. The dominant reason is precisely the more effective pursuit of the IM for electricity and gas. The ACER is strongly endorsed by NRAs.

¹⁴¹ See CPB (2005) for more information on optimal levels of investments in the quality of networks. There is a trade-off between higher investment in the security of supply and average costs to users.

¹⁴² Public investment in more interconnection capacity is unlikely to address the issues. Apart from increasing the potential cross-border externalities, principally, investments in interconnection capacity are private investment decisions that can be recovered through appropriate user charges.

proper safety systems at interconnection points is more optimal; but without an existing cost-benefit analysis this is something that cannot be judged here. Furthermore, such safety systems could also be made mandatory, but that would mean imposing huge costs on private parties (the TSOs); some financial support from the centre in order to gain public support may be warranted. In any case, if such investments were deemed necessary, they would typically fall within the realm of TEN-E (which does currently not finance such projects).

Apart from research and TEN-E, current expenditures in the EU budget in the field of energy are mostly limited to activities in the field of regulation (harmonisation of rules to foster cross-border competition in, effectively, markets that extend beyond national borders). A few outside threats will warrant attention in the field of energy in the near future. These may impact on the current budget;¹⁴³ notably in the field of security of supply and climate change. For the relation between energy and climate change, we refer to Chapter 8. In relation to the security of energy supply, the challenges result from current levels of consumption, economic growth and energy stocks. This will lead to increasingly scarcer conventional energy sources over the next few decades. In addition, more and more of the EU's external energy supply will be sourced from a smaller number of countries (a prime example is the EU's increased reliance on natural gas from Russia coming in through a limited number of entry points). This will impact on the possibilities for these third countries to increase the price of their exports. Increased cooperation at the EU level, resulting in a stronger bargaining position of EU Member States, may counterbalance this threat. Apart from research into alternative energy sources, no major spending at the EU level would be warranted as long as free-riding could be prevented, and as long as markets produce sufficient price signals. The latter may not always be the case.¹⁴⁴ In many cases, changes in regulation and/or organisation of markets may change this market failure (see, for example, ECORYS, 2007). However, if market participants are behaving in a way that is too short-sighted (which is possibly the case with strategic investments, with long lead times, such as is the case in gas storage facilities), public investments may be warranted. The spillover effect from such strategic facilities (for example, Belgium is fully dependent on gas storage facilities in Germany, France and the Netherlands)¹⁴⁵ and the scale economies involved with these kinds of investments would be arguments for some subsidisation by the centre.

All in all, there may be a case for additional spending, but only if markets fail to produce the right signals; and only if coordination of policies at EU level fails or turns out to be too costly. Moreover, if this is the case, the role of the centre in public investments should be typically in the form of Pigouvian subsidisation; i.e. only financing the size of the externality. Most spending, however, remains in the field of research (renewables, energy efficiency, etc.) and this should be classified under the heading of research.

¹⁴³ Some of these issues are dealt with further in Part II of this report.

¹⁴⁴ For example, in 2006 the UK's gas network operator called for an urgent review of the strategic reserves. They claimed that while market-led investment in large scale storage would be preferable, the reality of growing import dependence and insufficient price signals at the NBP may necessitate state involvement – see Energy Business Review, 23 June 2006.

¹⁴⁵ Technically, the Netherlands does not have so much storage capacity, but instead it has a large gas field with the distinctive capacity to regulate gas flow pressures; as such it can produce similar flexibility as a major storage capacity. In fact, many gas storage facilities are built on empty gas or oil fields.

Public choice and other arguments

Given the 'public good' nature of services like universal accessibility, national governments often have a large stake in network industries; this often materialises in a more or less outspoken policy of creating national champions (ECORYS, 2005b, SEO and PWC, 2005). Incumbent firms are often protected, even if most of their activities could be provided at a lower cost through competitive markets. In this case, EU regulation could address the selection principle and correct the competition of failing systems (see Sinn, 2003). As such, EU regulation would promote competitiveness in EU energy markets. Moreover, Internal Market policy also requires integration of network industries. Foreign market access is often limited due to explicit restrictions or regulatory hurdles. This does not comply with the principles of the Internal Market.

There is a danger of a common pool problem which makes that Member States start to rely on the EU to finance security of supply facilities. Co-financing by Member States should address this problem sufficiently.

11.3 Conclusions

TEN programmes focus on bottlenecks in infrastructure (e.g. cross-border infrastructures (TEN-T), like passes along the Alps, but potentially also on cross-border interconnectors of energy networks (TEN-E)). These bottlenecks often occur for cross-border infrastructure and at the regional level (in which case, these are addressed through the regional funds and Cohesion Funds). National governments cannot credibly commit to addressing these issues, in which case co-financing by a supranational authority - the EU - is necessary.

Transport services cover road, air, water, and rail transport. In the past, railway companies were considered as natural monopolies but nowadays mostly the infrastructure is considered as a monopoly and is financed by governments. The network still benefits from economies of scale, which would lead to underinvestment; but maintenance and supervision could be handled by one authority which then permits the others to use the network (see, for instance, Monopolkommission, 2007). For air transport, air traffic control is an activity which exhibits clear benefits of scale but for other transport channels like roads, waterways and canals there are no significant benefits of scale.

Some parts of the value chain in energy provision display the characteristics of a natural monopoly with economies of scale and scope (Albrecht, 2006). This requires government policies to address the externalities in this field in order to improve the competitiveness of the industry. Moreover, national policies often have external effects on other countries. This requires some coordination at EU level, but not a contribution from the budget. Improving the functioning of the market will result in better price signals which allow for more market-based solutions concerning security of supply. Possible short-sighted behaviour by market participants may, however, require some public funding. The spillover argument would argue for some budgetary involvement by the centre.

In the field of telecommunication, due to the global character of the industry, a case can be made for more coordination of regulatory regimes or even the establishment of a European regulator to improve the industry's competitiveness.

Table 11.2 summarises the main findings from the assessment made.

Table 11.2 Conclusions on network industries

	Transport	Energy			Telecom	Post
	TEN-T	TEN-E	Comp	SoS	(regulation)	
<i>Does the following apply:</i>						
Normative test						
Economies of scale	No	No	No	Some	Yes	Limited
Externalities	Yes	Yes	Yes	Yes	Some	No
Diversity	Limited	Yes	Limited	No	Limited	Limited
Pro-centralisation						
Limits to system competition	Yes	Yes	Yes	Yes	-	-
Second-best	-	-	-	-	-	-
Complementarity between policies ¹⁴⁶	Yes	Yes	Yes	Yes	Yes	Yes
Lobbying	No	No	No	-	No	No
Pro-decentralisation						
Self-interest and accountability	No	No	No	-	No	No
Common pool	-	-	-	Yes	-	-
Lobbying	No	No	Yes	-	Yes	Yes
Credibility of co-operation ¹⁴⁷	Limited	Limited	No	No	No	No
Proportionality ¹⁴⁸	Yes	Yes	No	Maybe ¹⁴⁹	No	No
Conclusion for EU budget	Yes	Yes	No	Some	No	No

Note 1: 'Comp' stands for competitiveness (excluding TENs) and 'SoS' for Security of Supply. For policy related to climate change, see Chapter 8.

Note 2: The analysis of Telecom deals with the possibility of establishing a European regulator.

Role in terms of the budget

The role in terms of the budget is quite limited as most market failures can be addressed through regulation and/or supervision. Apart from the TENs, there are no clear

¹⁴⁶ In all policy fields, there seems to be a strong link with competitiveness.

¹⁴⁷ Abstracting from standardisation issues.

¹⁴⁸ With respect to the involvement of the budget (as opposed to solely regulation and/or coordination)

¹⁴⁹ If market-based solution fails.

expenditures necessary in this respect. Outlays in terms of TENs could be increased to further integrate national markets (mostly for railways and roads) and/or as a result of further integration of national markets (e.g. the need to address rolling blackouts throughout Europe that have become a phenomenon because national electricity networks have become integrated). There may be reasons for outlays in the field of strategic energy storage, but only if markets fail to produce sufficient price signals and/or market participants tend to be too short-sighted.

12 Health and Consumer Policy

12.1 Policy and budget

In 2007, the EU budget reserved € 500 million for health and consumer protection, less than half of one percent of the total budget. Most of these commitments will be used for food safety, animal health, animal welfare and plant health (€ 350 million). The greater part will be spent on animal disease eradication and monitoring of potential public health risk. Two budget articles of about € 50 million each are reserved for an emergency fund for veterinary complaints and for the European Food Safety Authority.

About € 75 million is destined for public health; € 25 million will be spent on the European Centre for Disease Prevention and Control, and about € 40 million on the new Health and Consumer Protection Strategy. This strategy has the following objectives:

- to protect citizens from risks and threats which are beyond the control of individuals and that cannot be effectively tackled by individual Member States;
- to increase the ability of citizens and to enable them to make better decisions about their health and consumer interests;
- to mainstream Health and Consumer Policy objectives across all Community policies.

Table 12.1 EU commitments on health and consumer protection

Name Budget Chapter/Article	Budget chapter / Article	Commitments		
		Billion €	As % of	
			Budget chapter / Article	Total budget
Administrative expenditure	17.01	0.10	18.21	0.08
Consumer policy	17.02	0.02	3.04	0.01
Public health	17.03	0.08	14.37	0.06
<i>European centre of disease prevention and control</i>	17.03.03	0.03	4.52	0.02
<i>community action in public health</i>	17.03.06	0.04	7.29	0.03
Food safety, animal health, animal welfare and plant health	17.04	0.34	64.38	0.28
<i>animal disease eradication and monitoring programmes and monitoring of the physical conditions of animals that could pose a public health risk linked to an external factor</i>	17.04.01	0.21	39.35	0.17

Name Budget Chapter/Article	Budget chapter / Article	Commitments		
		Billion €	As % of	
			Budget chapter / Article	Total budget
<i>Emergency fund for veterinary complaints and other animal contaminations which are a risk to public health</i>	17.04.03	0.05	9.02	0.04
<i>European Food Safety Authority</i>	17.04.08	0.05	8.93	0.04
Health and Consumer Policy	17	0.53		0.4

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html.

Nearly all EU budget activities in Table 12.1 are related to agriculture (food or animals). In several Member States, these activities are also explicitly linked to a department of agriculture and the related budget. Budget title 17 of the EU budget does not really include health-care activities; only those related to health prevention. In the Member States health care is a large budget item. Many countries spend € 1,000 to € 2,000 per person on health care; only in the new Member States are these expenditures lower. This suggests that health care is almost exclusively a national policy area.¹⁵⁰ Section 12.2.2 discusses whether this should remain the case by using the assessment procedure. Section 12.2.1 assesses the current EU budget.

12.2 Assessment

12.2.1 Health and Consumer Policies

According to Table 12.1 we can distinguish consumer policy, public health and food safety, animal health, animal welfare and plant health. Most of these budget activities can be defended from a normative point of view. As a result of the Internal Market, agricultural and food products and animals can move freely between Member States. Border controls have been abolished, which stimulates the movement of animals and agricultural products. As a result, disease prevention and control and health prevention have also to be organised at that a higher level, which is far more effective than individual Member State policies. Moreover, non-coordinated Member States' policies regarding health and consumer policy could hamper trade; potentially causing (negative) external effects. Both the economies of scale argument and the external effects argument argue for regulation at the EU level and an accompanying budget for food safety, monitoring and prevention.

Due to the free movement between Member states, improved transportation possibilities, and accelerated cross-border travel; diseases can potentially spread much faster over Member States. These spillovers justify the establishment/continuation of a European Centre for Disease Prevention and Control.

¹⁵⁰ This is also an obligation by the Treaty.

Countries' preferences on health and consumer protection are not identical, but will not differ significantly. Diversity between Member States is not a powerful counter argument for EU budget activities in this area.

The public choice literature has little to add. It is clear that the complementarity with Internal Market policies is an important argument for EU-wide activities in this area.

12.2.2 Health care policy

The heterogeneity of health care systems between Member States can be characterised by Bambra's (2005) health care index. The index covers twelve Member States and includes issues such as the public/private mix of health care provision, the access to public provision and the coverage provided by the health system. With the help of the rankings and the Esping-Andersen typology it is possible to classify the twelve countries into two regimes. On the one hand, the Social Democratic regime (Denmark, Finland, Norway, Sweden, UK) is characterised by a high level of egalitarianism and a maximum degree of decommodification. Conservative welfare regimes (Austria, Belgium, France, Germany, Ireland, Italy, and the Netherlands) on the other hand, "... tend to reinforce traditional differences based on occupational status, lifestyle and gender" (Wildeboer Schut et al., 2001:14). Here the degree of decommodification is generally moderate.

Each country in the European Union has a unique mix of sources of health care financing. (Mossialos et al., 2002). Nine Member States predominantly fund their health care expenditure from social or compulsory insurance contributions. In contrast to that, twelve countries rely heavily on taxation. Moreover, Belgium and Greece rely on a mix of social health insurance contributions and taxation. The variation in health care spending per capita is significant. The most obvious disparities can be observed by comparing the old and the new Member States. However, there are also clear differences between continental and Anglo-Saxon countries on the one hand, and Mediterranean countries on the other hand.

Other important features of national health care systems also differ substantially. Nicholas (2004) particularly focuses on disparities with respect to the education and training of professionals working in the health care sector. Although, various standards are set out in directives covering doctors' legislation, the medical profession, the nurses', dentists' and pharmacists' directives; Member States may still adopt very different approaches to the ways in which they organise education and training.

The literature on scale economies in the European health care sector is rather scarce; and if economies of scale are mentioned they are often related to issues on a regional level. Posnett (2002) investigates whether larger hospitals in the UK are more efficient because of their potential lower unit costs. The author finds no proof to support this. In particular, economies of scale are only relevant for small hospitals (less than 200 beds). The optimal scale of a hospital generally depends on the interaction between the health care needs of a local population and the extent of interaction between specialisations within the hospital. Here the relevant question is: Could there be benefits of scale of a European health care system? First of all, one should have an idea of the characteristics of such a system.

National systems diverge widely. Most patients do not want to travel faraway. This would be inefficient, besides being inconvenient. One could imagine that patients want to use foreign health care facilities in border regions, but these benefits do not warrant a supranational European health care system.

Another relevant question is: Do national health care policies generate external effects to other countries? Certain EU regulations that were introduced in order to reduce barriers to cross-border mobility have a direct impact on the national health care policies of the Member States. Hervey (2006) identifies certain externalities that arose due to the Kohll and Decker rulings that were introduced by the European Court of Justice in 1998. These rulings imply that at least some health services are subject to the Internal Market rules governing the free movement of goods and services. According to Hervey (*ibid*), Member States with a higher standard of services might face a sudden unexpected inflow of patients. This may lead to longer waiting lists; and have a negative impact on the standards of health care provision for nationals. Additionally, it could have an adverse effect on national health care planning and capacity maintenance. However, Kvist (2004) finds no empirical support for this kind of social tourism related to the southern enlargement rounds, or related to past projections of the last EU enlargement. In particular, Member States with more generous and accessible social and health policies do not serve as ‘magnets’ to attract less privileged strata from other Member States. We conclude that external effects might exist theoretically, but do not impose severe costs in practice.

Heterogeneity in health care systems is thus large; economies of scale and external effects of national policies are limited or absent. Therefore, health care policies have to be addressed at the national level, as is currently the case.

12.3 Conclusions

The overall conclusion is that the current EU health and consumer policies are justified as an EU activity as long as these serve EU-wide objectives. These - mainly regulatory - policies are to a large extent driven by the Internal Market. In some cases there are economies of scale and external effects of national policies. Heterogeneity is much more limited than in other policy areas. In particular this is the case for food safety, animal health, animal welfare and plant health and - to a large extent - also public health.

For some parts of consumer policy and public health, policies are not related to the scale of the European market. Member States seem to be the appropriate government level to address these policies. However, such activities form only a minor part of the EU budget.¹⁵¹

In health care policies, economies of scale of centralisation and externalities of decentralisation are hardly present. There could be a need for a system of increased coordination and information exchange in the European health care sector. Furthermore,

¹⁵¹ For a precise demarcation one would need details for every sub-item on the budget; and these sub-items often have several objectives which have to be disentangled. This is beyond the scope of this study.

internal market policies might increase externalities such as health care tourism. However, empirical evidence has so far not proven this. In developing health care policies, national circumstances, such as historical, political and cultural roots have to be respected, which should be assigned to national governments.

Table 12.2 summarises the main findings from the assessment made.

Table 12.2 Conclusions on health and consumer policies

	Consumer Policy	Public health	Food safety, animal health, welfare and plant health	Health care
<i>Does the following apply:</i>				
Normative test				
Economies of scale	Yes	Yes	Yes	No
Externalities	Yes	No	Yes	No
Diversity	No	No	No	Yes
Pro-centralisation				
Limits to system competition	No	No	No	No
Second-best	No	No	No	No
Complementarity between policies	Yes	Yes	Yes	Yes
Lobbying	No	No	No	May be
Pro-decentralisation				
Self-interest and accountability	No	No	No	Yes
Common pool	No	No	No	No
Lobbying	No	No	No	No
Credibility of co-operation	No	No	No	No
Proportionality	Yes	Yes	Yes	No
Conclusion role for EU budget	Yes	Yes	Yes	No

Consequences for the budget

The current budget follows the subsidiarity principle and no major changes are to be expected.

13 Freedom, Security and Justice

13.1 Policy and budget

The policy area 'Freedom, Security and Justice' has developed quite rapidly over the last fifteen years. These developments were triggered by, *inter alia*, the increase in legal and illegal migration from third countries, as well as the expanding international dimension of criminality and terrorism. Total commitments for 2007 are € 612 million. The largest budget chapter covers solidarity with respect to external borders and visa policies (with a budget of nearly € 240 million), of which the majority (€ 170 million) is allocated to external borders, supporting the implementation of a common border management and conducting common external border policies. The remainder is used for (other) Schengen-related issues and visa information systems and management of operational cooperation - see Table 13.1. The second largest budget chapter covers migration (common immigration and asylum policies) with a budget of nearly € 150 million, which is mainly used for the European refugee fund and for the integration of third-country nationals.

Table 13.1 EU commitments on Freedom, Security and Justice in 2007

Name Budget Chapter/Article	Budget chapter / Article	Commitments		
		Billion €	As % of	
			Budget chapter / Article	Total budget
Administrative expenditures of area of Freedom, Security and Justice	18.01	0.05	8.33	0.04
Solidarity - external borders, visa policy and free movement	18.02	0.24	38.91	0.19
<i>European agency for the management of operational cooperation at the external borders</i>	18.02.03	0.02	3.46	0.02
<i>Schengen information system</i>	18.02.04	0.02	2.45	0.01
<i>Visa information system</i>	18.02.05	0.03	5.23	0.03
<i>External borders fund</i>	18.02.06	0.17	27.77	0.14
Migration flows - common immigration and asylum policies	18.03	0.15	24.34	0.12
<i>European refugee fund</i>	18.03.03	0.07	10.97	0.05
<i>European fund for the integration of third-country nationals</i>	18.03.09	0.06	10.60	0.05

Name Budget Chapter/Article	Budget chapter / Article	Commitments		
		Billion €	As % of	
			Budget chapter / Article	Total budget
Fundamental rights and citizenship	18.04	0.03	5.47	0.03
Security and safeguarding liberties	18.05	0.06	10.12	0.05
Justice in criminal and civil matters	18.06	0.06	9.52	0.05
Drugs prevention and information	18.07	0.01	2.43	0.01
Policy strategy and coordination	18.08	0.01	0.88	0.00
Freedom, Security and Justice	18	0.61	100	0,5

Source: European Commission, see http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/nmc-titleN18280/index.html.

Another relevant budget chapter relates to security and the safeguarding of liberties. This includes the prevention, management and the fight against crime and terrorism. Europol and the European police college (CEPOL) are classified under this heading.¹⁵² CEPOL's main objective is to enable police officers from different EU countries to learn more about each other's national police systems; and to strengthen cross-border police cooperation in Europe.

The budget chapter "Justice in criminal and civil matters" is used for Eurojust, criminal and civil justice. Eurojust is composed of national prosecutors, magistrates or police officers of equivalent competence. Its task is to enhance the effectiveness of the national authorities when they are dealing with the investigation and prosecution of cross-border crime and organised crime.

13.2 Assessment

13.2.1 Public order in general

The EU tasks under the heading 'Freedom, Security and Justice' are classified in many countries under the heading of public order. These tasks are quite diverse, varying from police (including prevention and the fight against terrorism), fire protection, courts, prisons and border controls and visa policies. Most of these public order tasks have mainly national dimensions, such as the police, fire protection, courts and prison services. Some of these tasks are even organised at more regional or local levels. The benefits of scale seem to be limited here. Externalities do not seem to be present. However, some tasks have international dimensions (both in terms of externalities and potential scale effects), such as the fight against terrorism and international crime, border controls and

¹⁵² Although there were no commitments for Europol in the EU budget for 2007

visa policies. These types of tasks with international dimensions dominate the EU budget on Freedom, Security and Justice.

Public choice arguments also show that assigning public order tasks are assigned to lower levels of government. Mueller (1997, 2002) and Winer and Shibata (2003) conclude that these services should be provided at the Member State level or even be disaggregated further, as is the case in Germany and some other Member States. However, this could create a problem as governments often preserve the monopoly status of these types of services (notably protection, prison services, etc.). Such government monopolies have little potential to serve the diversity of demand within their jurisdiction; and have little incentive to be efficient. Potential entry is unlikely, however, given the prevalent European norms and values.¹⁵³

13.2.2 Assessment of the EU budget

The common interest in most of the areas is partially motivated by the freedom of movement within the EU and the resulting consequences. The question is whether these activities are also motivated by our assessment procedure. In a globalising world with increased mobility for both people and goods, it becomes easier to operate internationally. This is not only the case for firms and consumers but also for people conducting criminality or planning terrorist activities. The free movement within the EU and Schengen Agreement between most EU Member States – which concentrates border controls on the external borders – facilitates cross-border traffic for all activities, including illegal ones. Below we address the budget activities in more detail.

External borders, visa policy and free movement

From the principle of free movement it seems logical to concentrate border control, visa and asylum policies at the external borders of the EU. There is a clear-cut case for EU involvement in external border control. There are substantial economies of scale because external border control is much cheaper than border control in each Member State. This reduces government expenses for border control, but also reduces the costs for firms and citizens. The externalities of national border policies in the EU are also important. Firstly, Member States with mainly internal EU borders benefit from the border control of other Member States. This introduces the possibility for free-riding by Member States with limited external borders. Secondly, a national policy within the EU is only effective if other Member States with external borders follow the same policies. Border control is a traditional public good – but close to a club good. All participants should be forced to contribute - which could be conducted by financing through the EU budget. Moreover, border control can only be effective if Member States cooperate and manage border control to set standards and to ensure a minimum level of quality. EU border control is also complementary to Internal Market policies.

Similar arguments apply for visa policies. Visa policies are harmonised in the EU. Here also the benefits of a central policy are clear: benefits of economies of scale and the internalisation of external effect of national policies. Moreover, it is a necessary

¹⁵³ Empirical evidence for public choice considerations is provided by Wittmann (2001), Holcombe (2001), Niskanen (1979, 1992), and also Mueller (2002).

complement to other policies in this field and to the free movement within the EU. Economies of scale arise because a common visa system is much more economical than 27 national systems. Moreover, the external effects of national policies could be large - particularly in the presence of the Schengen Agreement. If Member State A implements stricter policies, this could lead to more visa applications in Member State B with laxer policies. Because of the Schengen Agreements, visa applicants could enter Member State A via the back door, since everybody (including visa applicants) can travel much easier to other Member States (even if they are legally not allowed to do so). This argument also applies to illegal immigration and human trafficking - see below.

Migration flows – common immigration and asylum policies

The EU also tries to conduct common immigration and asylum policies. Here also the benefits of a central policy are clear: benefits of economies of scale (a common visa system) and the internalisation of external effects of national policies. In particular, the external effects of national policies could be large. As mentioned, if individual Member States implement stricter policies, this could lead to more migration and asylum applications in Member States with laxer policies. The variety in preferences for migration policies is much larger. This could be an obstacle to the creation of a common migration and asylum policy. These common policies are complementary to Internal Market policies and to the Lisbon Strategy for attracting more knowledge-based workers to Europe.

With regard to illegal migration and human trafficking, spillovers are also present; notably due to Schengen. If, for example, individual Member States pursue lax control regimes in illegal migration and trafficking, this may affect other Member States, since the Schengen Agreement facilitates mobility throughout the Union. As a consequence, the respective Member States with the laxer control regime do not incorporate the full effects of their lax behaviour. This is likely to lead to under-spending in the respective policy area. In this area, heterogeneity is not an issue.

With respect to illegal migration and trafficking, there is a clear case for EU spending. In case of legal migration policies the case is less clear. Some budget allocation for common migration policies is needed; notably for the facilitation of the organisation and implementation of (harmonised) admission procedures for migrants. However, immigration and integration heavily depends on local and regional economic and social circumstances. Furthermore, immigration and integration should not solely be seen as cost drivers. The United Nations World Economic and Social Survey 2004 - International Migration report stated that “Studies also show that migrants tend to be net contributors to fiscal revenue: what migrants, on the whole, pay in taxes is greater than what they cost the State in welfare payments, education and additional infrastructure.” Hence, migration may contribute considerably to a Member States welfare system. This argues in favour of a substantial role for national governments and budgets; in general, the case for EU involvement (e.g. via the European Fund for the integration of third-country nationals that largely subsidises the integration in a particular country) seems rather weak.

Nevertheless, some degree of solidarity may be required if settlement patterns and costs results in an uneven burden between Member States due to common asylum policies in the EU. It has been argued above that common asylum policies are a logical complement

to existing free movement policies. The discussion also highlights that as yet it cannot be determined whether the net costs of asylum, i.e. the costs of harbouring asylum seekers (housing, welfare, schooling, etc.) minus their contributions to the welfare state in terms of taxes, differ significantly. Furthermore, the argument that the choice of destination and integration heavily depends on local and regional economic and social circumstances also applies for asylum policies. However, refugee relief may be more of a cost driver: notably because refugees, *in principle*, have a temporary status (which may also affect their incentives and efforts to actively integrate).¹⁵⁴

The European Refugee Fund distributes funds to Member States on the basis of objective criteria (*inter alia*, the actual numbers of refugees) to compensate for costs incurred. To the extent that a standard EU policy with respect to admission requirements for refugees is implemented (see also ‘visa control’ above), a case can be made for such EU-funded assistance to those Member States in which refugees actually settle (temporarily or permanently). This may be borne out of a danger to free-riding by Member States once the welcoming of refugees would be seen as a collective EU responsibility; but also out of solidarity with countries that account for a disproportionate share of refugee relief. This assistance should be on a basis of co-financing due to a clear common pool problem. This support could comprise co-financing of housing and income support; or of measures related to adapting and integrating in the host country (as the budget for the European Refugee Fund does at present). The latter may be easier to administer (see also the arguments on interpersonal personal income transfers in Chapter 3).

Security and safeguarding liberties and justice in criminal and civil matters

Most of the budget for these activities is targeted at European cooperation. Given the fact that pure national policies are not effective in preventing and solving international criminality and in providing security; coordination of some of these activities (notably policy cooperation) and a supporting budget is necessary. If these activities were conducted at the Member State level there is a risk of free-riding and a lack of cooperation. Given the right of free movement, police and juridical cooperation is also complementary to the Internal Market. Here, diversity of preferences and national circumstances is not relevant as counter argument.

Fundamental rights, citizenship, drugs prevention and information

These policies are of minor importance in terms of the budget. The goals of these policies do not seem to have specific European value-added. These policies are necessary at the Member State level, and Member States also cover expenditure on these activities. There are neither clear externalities of national policies, nor benefits of scale of European action. Some budget for the coordination and exchange of information could be useful, but our assessment procedure cannot underpin the full budget of € 33.5 million on fundamental rights and citizenship.

¹⁵⁴ Of course, this ‘temporary status’ may, in some cases, change into a ‘permanent status’.

13.3 Conclusions

Although some of the EU budget activities in this policy area also have an international dimension, the Member States (or even lower levels of government) are the appropriate levels to address most tasks related to public order. In some cases - in particular with respect to the budget chapters Solidarity (external borders, visa policy and free movement) and Security - there are economies of scale for EU cooperation; and national policies have negative external effects. These policies are also complementary to the free movement and Internal Market policies. The diversity argument is not a dominating argument to decentralise policies and budgets in these areas with clear international dimensions.

With respect to migration policies (asylum and immigration), there are also economies of scale and externalities of national policies which argue in favour of EU coordination and thus a budget, although in this case the variety in preferences is larger.¹⁵⁵ However, most of the budget for the integration of third-country nationals is aimed at the integration in the host Member State. The latter and regional authorities know the local circumstances well, and may also benefit from the additional contributions to their welfare systems. Therefore, they are the appropriate level to conduct and finance integration policies. There seem to be no convincing arguments for a large budgetary involvement of the EU for integration of asylum seekers, except for some solidarity if asylum seekers are spread unevenly across EU countries, given that the acceptance of asylum seekers is seen as an EU responsibility. The current budget for the European refugee fund may therefore increase, but this is critically dependent on the distribution of costs over regions; an issue that has not been resolved.

In terms of the overall balance within the policy field, there seems to be the right balance within the current budget between the EU and Member States responsibilities.

Table 13.2 summarises the main findings from the assessment made.

Table 13.2 Conclusions on Freedom, Security and Justice

	Solidarity, external border & visas	Migration	Asylum	Security and safeguarding	Justice	Other ¹⁵⁶
<i>Does the following apply:</i>						
Normative test						
Economies of scale	Yes	Some	Some	Yes	Yes	No
Externalities	Yes	Some	Yes	Yes	Yes	No
Diversity	No	Yes	Some	No	No (border) Yes (visa)	Yes

¹⁵⁵ Notwithstanding this, agreement has been reached on developing common policies in this field. Some solidarity is already in place.

¹⁵⁶ Fundamental rights and citizenship and drug prevention

	Solidarity, external border & visas	Migration	Asylum	Security and safeguarding	Justice	Other ¹⁵⁶
Pro-centralisation						
Limits to system competition	No	No	No	No	No	No
Second-best	No	No	No	No	No	No
Complementarity between policies	Yes	Yes	Yes	Yes	Yes	No
Lobbying						
Pro-decentralisation						
Self-interest and accountability	No	No	No	No	No	No
Common pool	No	No	Yes	No	No	No
Lobbying						
Credibility of co-operation	No	No	No	No	No	No
Proportionality	Yes	No	Unclear	Yes	Yes	No
Conclusion role for EU budget	Yes	No	Some	Yes	Yes	No

Consequences for the budget

Spending in the area of Justice and Home Affairs is quite limited (0.5% of the total EU budget). The current level of spending is warranted and there are no indications to expect an increase in short to the medium term. While some spending should be reduced (notably outlays on integration of migrants; drugs prevention – a task for individual Member States), other spending may increase slightly (solidarity, external borders, security and safeguarding). Overall, in net terms, cancelling the first and doubling the latter will have hardly any effect on the total budget. These conclusions may very well change in the longer term.¹⁵⁷

¹⁵⁷ See Part II of this study

14 Defence

14.1 Policy and budget

The mandate of the EU

The EU currently has a limited mandate over defence issues. The EU does not have its own dedicated military forces. There are a number of multinational military and peacekeeping forces which ultimately come under the command of the EU. Although some EU Member States are constitutionally committed to remain neutral on defence issues, most Member States contribute to the European Security and Defence Policy (ESDP).

Since the Maastricht Treaty and the birth of the EU, the objectives of the Union include the strengthening of Europe's international identity by asserting "the implementation of a common foreign and security policy, including the eventual framing of a common defence policy, which might in time lead to a common defence". The Treaty of Amsterdam revised the provisions on defence; going a step further in the direction of formulating concrete tasks (the so-called Petersberg tasks) of the EU's defence policy. At the same time, it was stated that policy of the Union in this respect "should not prejudice the specific character of the security and defence policy of certain Member States" and that it is compatible with policy conducted in the framework of NATO obligations. The Nice Treaty repealed most of the provisions referring to the Western European Union (WEU)¹⁵⁸ and integrated the WEU in the ESDP, emphasising the operational capability of the EU itself. In addition, the Nice European Council adopted a declaration in its conclusions that stresses the importance of the operational capability of the common ESDP.

While, strictly speaking, the Second Pillar (common foreign and security policy) does include defence policy, it remained apart from the Community's institutional and legal structure. Defence policy is now enshrined in the new Treaty of Lisbon as follows: "The Union's competence [include] the progressive framing of a common defence policy that might lead to a common defence." It is specifically mentioned that "[...] the provisions covering CFSP do not give new powers to the Commission to initiate decisions or increase the role of the European Parliament, [nor do they] prejudice the specific

¹⁵⁸ The Western European Union (WEU) is a partially dormant European defence and security organisation, established on the basis of the Treaty of Brussels of 1948 with the accession of West Germany and Italy in 1954. Originally, under the Amsterdam Treaty, the WEU was given an integral role in giving the EU an independent defence capability; playing a major role in the Petersberg tasks. However, that situation is changing. On 13 November 2000, WEU Ministers met in Marseille and agreed to begin transferring the organisation's capabilities and functions to the European Union, under its developing Common Foreign and Security Policy (CFSP) and European Security and Defence Policy (ESDP).

character of the security and defence policy of the Member States.”¹⁵⁹ Partly, the new Treaty confirms the conclusions of the Council made in 2004.

European Defence Agency

In 2004, the Council established the European Defence Agency (EDA)¹⁶⁰ “to support the Member States and the Council in their efforts to improve European defence capabilities in the field of crisis management; and to sustain the European Security and Defence Policy as it stands now and develops in the future.” Within that overall mission four functions are distinguished:

1. Developing defence capabilities;
2. Promoting defence research and technology;
3. Promoting armaments co-operation;
4. Creating competitive European defence equipment market and strengthening the European defence, technological and industrial base.

The Treaty of Lisbon enshrines the EDA in the Treaty and grants it a guarantee of autonomy. The agency is no longer limited to crisis or armament management; but now also has the task of promoting harmonisation of operational needs. The EDA is financed inter-governmentally by the Member States, in parallel (outside) to the Community budget. In 2006, the EDA’s budget was € 21.3 million, of which € 18.8 million was actually used.¹⁶¹

The EU budget on a common foreign and security policy

The EU budget for a common foreign and security policy is limited to about € 160 million; or 0.13% of the budget (commitments 2007, budget chapter 19.03).¹⁶² About €55 million is appropriated for policy actions in Kosovo and Central and Eastern Africa in the form of civilian crisis management. Other budget articles are reserved for the monitoring and implementation of peace and security processes, non-proliferation and disarmament conflict resolution, emergency measures and EU special representatives. The larger part of this budget is intended for intervention abroad. As part of the European Security and Defence Policy, the EU has ongoing civilian crisis management operations in the Western Balkans (i.e. Bosnia and Herzegovina and Kosovo), the Palestinian Territories, Iraq, Afghanistan, Democratic Republic of Congo, Chad, and Darfur. Some of the operations are police missions and trainings missions (financed from the EU budget). Other missions are financed by ATHENA.

ATHENA

The Council of the European Union established ATHENA to administer the financing of common costs of EU operations which have military or defence implications. ATHENA deals with EU military operations as such and with the EU military supporting actions decided by the Council in support of a third state or a third-party organisation. In the first case, costs financed in common, as well as additional costs may be decided on a case-by-case basis. In the second case, costs eligible for common funding will be determined by

¹⁵⁹ Presidency Conclusions Brussels European Council, 21/22 June 2007. Council of the European Union (23 June 2007)

¹⁶⁰ Denmark exercised its right not to participate in this agency.

¹⁶¹ European Defence Agency (2006)

¹⁶² To put the budget into perspective, the EU Member States together spend about € 160 billion on defence (1,000 times the EU budget on Common Foreign and Security Policy)

the Council on a case-by-case basis. ATHENA is managed under the authority of a Special Committee composed of representatives of the Member States that contribute to the financing of each operation. Together with the Commission, which attends the Special Committee's meetings, Third states contributing to the financing of an operation may take part in meetings of the Special Committee; although they are not entitled to vote. Member States' contributions to ATHENA are made on a GNI basis and remain outside the EU budget.

European Rapid Reaction Forces

For quick interventions, the EU has established 'European Rapid Reaction Forces' (ERRF) which are military forces of 1,500 combat soldiers under the control of the EU. There are currently fifteen, mostly multi-national, groups who rotate actively, so that two are ready for deployment at any time. These Rapid Reaction Forces are designed to deal with the so-called Petersburg tasks (these are humanitarian and rescue tasks, peacekeeping, tasks of combat forces in crisis management, including peacemaking), and the European Security Strategy tasks (these are joint disarmament operations, support for third countries in combating terrorism, security sector reform operations as part of broader institution-building). The groups are intended to be deployed on the ground within 5-10 days of approval from the Council. Their deployment must be sustainable for at least 30 days, and this period may be extended to 120 days.

Enlarged tasks and permanent structured cooperation will have impact on the EU's budget. The Treaty of Lisbon maintains the prohibition of charging defence expenditure to the EU's general budget. Ultimately, national governments decide whether to contribute their troops to a particular ERRF deployment. Consequently, strong political will and cooperation will be important for sharing resources and moving forward with such missions.

14.2 Assessment

14.2.1 Military defence

Normative arguments

Defence is the most classic example of a typical public good. There are clear externalities involved if military defence is not assigned to a central level. If countries have similar geo-political interests, neighbouring countries could benefit substantially from the efforts of a country providing defence (see Alesina et al., 2002). Also Hoeller et al. (1996) emphasise the possibilities for free-riding if defence is not provided at the central level. In federal countries, defence and foreign policy - including the budgetary implications - are assigned to the federal government.

Besides the externalities of providing defence at a decentralised level, countries cannot exploit the benefits of scale. These are significant. Hoeller et al. (1996) conclude that an army needs to be of a minimum size in order to be effective. The benefits of scale can be related to lower costs due to sharing the burden of providing defence EU-wide; and the diminishing marginal costs of producing weapons. Fontanel and Smith (1991) and Teutemann (1993) emphasise the indivisibilities of military equipment. In spite of these

arguments, the empirical evidence does not confirm that larger countries allocate fewer resources to defence. However, the defence capacity of these countries is much higher.

Although the treaties since Maastricht have set the objective of moving towards a common implementation of foreign and security policies - including the framing of a common defence policy - nearly all Member States have their own army and national budget. The preferences are quite diverse. Some Member States have virtually no military defence at all, or are even constitutionally committed to remaining neutral on defence issues. Other Member States have a stronger preference for military defence combined with a higher military budget and a military industry. There are several good reasons (synergy, agility, sustainability, etc.) to at least concentrate the management, control and conduct of such operations at a European centralised level.

Public choice arguments

From a public choice perspective, several studies have chosen the state of anarchy as a starting point; and have shown how property rights, or private protection agencies or the state might emerge as institutional solutions to the social dilemma presented by anarchy.¹⁶³ It is questionable whether these arguments make much sense in the complex world of today. Typically, defence is viewed by economists as a classic public good (Musgrave and Musgrave, 1989).

Rent-seeking, which maybe very strong in those EU Member States that provide common defence, has already been analysed by the Tullock (1967) and Krueger (1974) in a more general context, along with several others; which dealt extensively with rent-seeking - see Buchanan, Tollison and Tullock (1980). If military defence were organised at EU level, it is highly likely that certain defence industries in certain EU member countries would be weakened, and others strengthened. Hence, forceful lobbying may take place to prevent this.

14.2.2 Rapid Reaction Forces

Although there are economic and public choice reasons to centralise military defence at EU level, from a constitutional point of view this is not possible. Politically, too, it would also be unlikely to be acceptable. Member States do cooperate in setting up Rapid Reaction Forces and operations abroad under the authority of the EU. Starting from the premise that these Rapid Reaction Forces are necessary; the cooperation of Member States is beneficial. There are economies of scale resulting from the fact that not every country has to keep its own Rapid Reaction Forces on standby all the time. Member States can rotate. Moreover, cooperation reduces the opportunities to free-ride. Participation in the Rapid Reaction Forces and missions is voluntary.

Even if not all Member States want to participate in delivering troops and or military equipment, one could imagine a structure in which at least all countries contribute financially. One of the complaints of countries delivering troops is that they also have to carry the financial burden.¹⁶⁴ Assuming (worldwide) that security and stability is in the

¹⁶³ See Skaperdas (1992), Usher (1992), Sutter (1995) and Nozick (1974).

¹⁶⁴ Similar discussions take place within NATO.

interest of all Member States, a central budget would at least internalise the externalities at the financial level. Moreover, a rapid military force for interventions is also complementary to a coordinated foreign policy.

14.2.3 Civil protection

In the case of civil protection, economies of scale seem to be limited, as are the externalities of civil protection at national level. Therefore there seems to be no overwhelming reasons for any significant EU involvement. In general, civil protection should be assigned to the national level, although a rapid action force could be effective in case of emergencies. Concerning the latter, an EU coordinating agency or institution is particularly useful for providing aid during large scale catastrophes (like fires, ecological catastrophes or flooding), both EU-wide, as well as at the level of the individual Member States.

Former Commissioner Barnier proposes the creation of such a permanent force, ensuring that a few main units are available and ready to intervene at any time. In this way, the time needed to mobilise civil protection resources would be significantly reduced. Such resources would be managed by volunteering Member States, but should be available for European missions upon request. Economies of scale exist, as it is virtually impossible for individual countries to have a permanent force on standby all the time.

Dealing with unpredictable events (the likelihood of which may be influenced by independent actions, but which are not totally dependent on those actions) is essentially an insurance problem. As with other insurance problems, the problem of adverse selection and moral hazard is likely to lessen the chances of successful cooperative actions. The ideal resolution of this problem depends on a certain degree of risk-pooling with appropriate contributions. Hence, as the likelihood of credible cooperation is not (or at least to a limited extent) undermined; the involvement of the EU budget may not be required. Alternatively, one may envisage a system in which those who receive such aid also pay, but that may not be warranted from an equity point of view.

14.3 Conclusions

As indicated above, strong arguments exist in favour of the pooling of resources in *peace missions* (foreign military interventions in relation to the Petersburg tasks). The funds for these missions are off-budget, as the Treaty does not allow financing operational expenditure having military and defence implications. in this field. For softer missions (police, training, etc.), financing through the budget is possible and is indeed granted.

Traditional defence is the prime example of a public good. Clear benefits are associated with a common external defence strategy. Firstly, significant positive externalities are involved in national defence activities; and by centralising efforts, free-riding is prevented. Secondly, clear economies of scale (and potentially of scope) are present in joint defence efforts.

A few aspects prevent the EU from taking more responsibilities and committing the associated spending levels in this area. Firstly, as mentioned the Treaty does not allow for the EU budget financing operational expenditure having military or defence implications. Secondly, some countries are neutral. Thirdly, there is a degree of diversity on the amounts to be spent on defence; and on which types of defence. Moreover, some overlap with foreign (military) interventions exists, as the same pool is used for both.

Table 14.1 summarises the main findings from the assessment made.

Table 14.1 Conclusions on defence

	Military defence	Civil protection	Interventions and foreign military aid	Common Foreign & Security Policy
<i>Does the following apply:</i>				
Normative test				
Economies of scale	Yes	Some	Yes	Yes
Externalities	Yes	No	Yes	Yes
Diversity	Yes	Yes	Yes	No
Pro-centralisation				
Limits to system competition	No	No	No	No
Second-best	No	No	Yes	Yes
Complementarity between policies	No	No	Yes	Yes
Lobbying				
Pro-decentralisation				
Self-interest and accountability	No	No	No	No
Common pool	No	No	No	No
Lobbying				
Credibility of co-operation	Yes	Yes	Yes	Yes
Proportionality	Yes	Yes	Yes	Yes
Conclusion role for EU budget	Yes	No/Limited	Yes	Yes

Role in terms of the budget

Given the current constraints set by the Treaty, present EU budget spending on defence is practically nil. It is hard to attribute spending to a specific ex ante budget as the interventions depend on international needs. Moreover, at present large part of the expenditures are financed outside the framework of the EU budget. The direction of spending, whether inside or outside the EU budget is, however, very clear.

15 Foreign Policies

15.1 Policy and budget

15.1.1 Policy framework

Common foreign policies include policies on human rights, democracy and foreign aid. The Treaty spells out fundamental objectives for the common foreign policy:¹⁶⁵

- to safeguard the common values and fundamental interests of the Union;
- to promote international co-operation;
- to develop and consolidate democracy and the rule of law, and respect for human rights and fundamental freedoms.

In addition, the European Union development policy aims to meet the Millennium Development Goals (MDGs); notably, to reduce poverty worldwide in the context of sustainable development. The link with the above set of objectives is mentioned in the summary of the European Consensus for Development as follows: “[The Commission] also takes the view that the fundamental objective of poverty reduction is closely associated with the complementary objectives of promotion of good governance and respect for human rights, these being shared values underpinning the Union.”¹⁶⁶

International cooperation

As part of its external policy, the Commission is gaining representation in international bodies (such as, the UN, WTO, and G8). These bodies typically serve to negotiate on issues that involve multilateral and/or global spillovers; notably in trade, but also in other areas (such as non-proliferation of nuclear weapons). International cooperation is also sought after in specific fields where there are particular global spillovers, such as drugs policy and environmental policy.

¹⁶⁵ To be specific: the Treaty as amended by the Lisbon Treaty currently undergoing the ratification procedure. (Article 21.2) spells out: “The Union shall define and pursue common policies and actions, and shall work for a high degree of cooperation in all fields of international relations, in order to:

- safeguard its values, fundamental interests, security, independence and integrity;
- consolidate and support democracy, the rule of law, human rights and the principles of international law;
- preserve peace, prevent conflicts and strengthen international security, in accordance with the purposes and principles of the United Nations Charter, with the principles of the Helsinki Final Act and with the aims of the Charter of Paris, including those relating to external borders;
- foster the sustainable economic, social and environmental development of developing countries, with the primary aim of eradicating poverty;
- encourage the integration of all countries into the world economy, including through the progressive abolition of restrictions on international trade;
- help develop international measures to preserve and improve the quality of the environment and the sustainable management of global natural resources, in order to ensure sustainable development; “

¹⁶⁶ European Commission, see: <http://europa.eu/scadplus/leg/en/lvb/r12544.htm>.

International cooperation also comes in the form of the enlargement process, the European Neighbourhood Policy (ENP) and development cooperation (DC). Respectively, these are programmes that aim to integrate with our direct neighbours (enlargement); to cooperate with our neighbours' neighbours (ENP); and with more distant parts of the world (DC). The programmes typically aim to combine development policies with policies to spread values and norms; for example with respect to democracy, the rule of law, human rights, etc. Below we discuss these policy areas in more detail.

Democracy, rule of law, human rights and fundamental freedoms

The measures to address common values, such as those articulated under this heading, typically involve the other dimensions of external policies; notably international cooperation/political dialogue and (conditional) development cooperation. As the EU forms agreements to cover economic and other reforms (including support for infrastructure and health and education programmes), these provide a framework for political dialogue. Such agreements, for example, contain a clause which enables the Union to suspend or cancel trade or aid if the partner country violates human rights. Another example is such that since 2003, all new agreements must now include a clause in which its partners commit themselves to the non-proliferation of weapons of mass destruction.

Aid and Development

(Humanitarian) aid and development aid are not synonyms. EU humanitarian aid is unconditional and aims to get help to victims as quickly as possible; irrespective of race, religion or the political convictions of their government. The purpose of development assistance and cooperation (originally concentrated in Africa and extended to Asia, Latin America and the southern and eastern Mediterranean countries in the mid-1970s) is to support sustainable growth and development in the partner countries, so that they have the ability to tackle and eradicate poverty independently and to control over their own development.

15.1.2 The EU budget

Architecture of development instruments

To implement the above policies, the EU has several (financial) instruments. Some of these are thematic, such as the Stability Instrument (SI) or the Instrument for Democracy and Human Rights (EIDHR). Others have a geographical scope, such as the Instrument for Pre-Accession (IPA), the European Neighbourhood Policy Instrument (ENPI) or the Development Cooperation Instrument (DCI). Notably, these geographical instruments are combined with thematic objectives in the form of conditionality or horizontal programmes (e.g. with the aim of supporting non-state actors, food security, human and social development and/or the environment). All these programmes fall within the EU budget. In addition, the European Development Fund (EDF) finances cooperation programmes with countries in African, Caribbean and Pacific regions. The EDF falls outside the EU budget (see text below)

EDF

The European Development Fund (EDF) is the main instrument for providing Community aid for development cooperation in the ACP States and OCT (Overseas Countries and Territories). Even

though an article has been reserved for the Fund in the Community budget since 1993, following a request by the European Parliament, the EDF does not yet come under the Community's general budget. It is funded by the Member States, is subject to its own financial rules and is managed by a specific committee.

Figure 15.1 provides a schematic overview of the framework for instruments financing international cooperation and development policies. The figure also shows the amounts the Commission has reserved for these programmes in the Financial Framework for 2007-2013 (except for the EDF, the figures reflect the budget for the period 2008-2013).

Figure 15.1 2007-2013 Financial Framework for Europe as a Global Partner (in € billion)

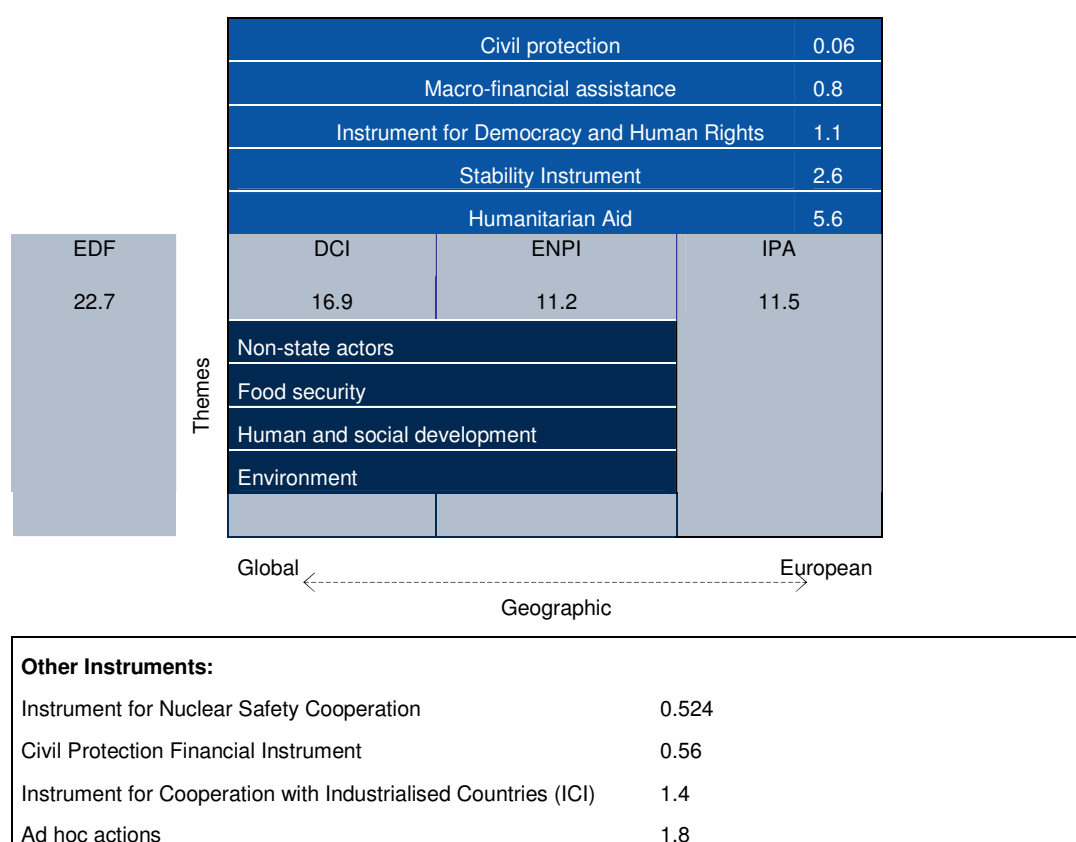


Figure based on: APRODEV, CIDSE, and CARITAS Europe (2006), 'EU NEWS', No 7, July 2006

Data source: European Commission, see

http://ec.europa.eu/budget/library/publications/financial_pub/investing_2007-2013_en.pdf.

The total budget for these policies in the Framework for 2007-2013 amounts to roughly €55 billion; including the EDF, the total amount is € 77 billion.

The present annual EU budget

IPA and ENPI

The IPA instrument notably falls under the policy domain of enlargement, but also under other policy areas (Structural Support, Agriculture, Employment and Social Affairs) have

IPA articles within their budget lines. The total budget for enlargement together is about €1.4 billion. Also € 1.4 billion was committed to the ENP programme in 2007.¹⁶⁷

In addition, Budget chapter 01.03 provides balance-of-payments support to a selection of countries (macroeconomic or macro-financial assistance). It is not officially part of the ENP or IPA, but in practice this stability measure is typically focussed on countries close to the Europe's political borders; such as, Armenia, Georgia, Moldova, and regions in the Western Balkans (Serbia, Montenegro, Albania and Kosovo).¹⁶⁸ In 2007, € 58 million was committed for this purpose.

Aid and Development

The European Union and its member countries provide more than € 30 billion each year in official aid to developing countries, of which about € 7 billion is channelled through the EC institutions. These include all the instruments in Figure 15.1, except for ENPI and IPA. Although in principle ENPI and IPA can be seen as 'DACable' as well,¹⁶⁹ we consider them separately, in order to find a better match with the conceptual framework and analysis below in section 15.2.

About € 500 million per year is spent on humanitarian aid; another € 200 million is spent on food aid. The budget for development cooperation is spread over various budget chapters and adds up to about € 5.3 billion.¹⁷⁰

Democracy, rule of law, human rights and fundamental freedoms

Although it was originally proposed that the European Initiative for Democracy and Human Rights (EIDHR) should become part of DCI (to mainstream human rights as a thematic programme); it was ultimately decided that this should remain a separate instrument. It has a budget of € 130 million, based on 2007 commitments. In addition, other development policies contribute to this objective through the horizontal themes and in the form of conditionality requirements.

Overview

Table 15.1 provides an overview of the EU budget on external policies; excluding the EDF - including the contributions of other budget chapters.

¹⁶⁷ Some elements of IPA also contribute to ENP in the form of stimulating cross-border cooperation, these are not incorporated in this figure.

¹⁶⁸ Indeed, it is considered an instrument for responding to crises and to certain regional or international problems. Officially, it is not determined geographically, as Tajikistan is a notable example of this.

¹⁶⁹ DACable means that they can be seen as official development cooperation, and thus count in the agreed targets for development assistance as agreed internationally.

¹⁷⁰ The Directorate General for Development (DG DEV) programs the use of financial resources dedicated to certain sectors and themes in support of the DCI for the ACP countries (about € 1.2 billion). Most of the development support to ACP countries, however, is financed by the EDF (about € 2.9 billion). The budget of DG for External Relations (RELEX) manages the DCI program for development cooperation with Latin America, (Central) Asia and East of Jordan Countries (about € 1.2 billion).

Table 15.1 EU commitments on external policies in 2007

Name Title/Budget chapter	Title / Budget chapter	Commitments		
		Billion €	As % of	
			Title / Budget chapter	Total budget
External Relations	19	3.51	50.72	2.83
Administrative, strategy and coordination	19.01 / 11	0.40	5.85	0.33
Other ¹⁷¹	19.02 / 05 / 06	0.27	3.92	0.22
Common foreign security policy ¹⁷²	19.03	0.16	2.30	0.13
European Initiative for Democracy and Human Rights (EIDHR)	19.04	0.13	1.90	0.11
European Neighbourhood Policy and relations with Russia	19.08	1.38	19.93	1.11
Relations with Latin America	19.09	0.34	4.89	0.27
Relations with Asia, Central Asia and countries east of Jordan	19.10	0.82	11.92	0.66
Development & Relations with ACP States	21	1.22	17.59	0.98
Administrative, strategy and coordination	21.01 / 03 / 07 / 08	0.02	0.30	0.02
Food security	21.02	0.20	2.86	0.16
Non-state actors in development	21.03	0.21	3.00	0.17
Environment and sustainable management of natural resources, including energy	21.04	0.08	1.19	0.07
Human and social development	21.05	0.12	1.70	0.09
Geographical cooperation with ACP States	21.06	0.33	4.71	0.26
Enlargement	22	1.05	15.20	0.85
Administrative	22.01	0.10	1.43	0.08
Management of the Instrument for Pre-Accession	22.02	0.86	12.37	0.69
Transition facility for new Member States	22.03	0.09	1.24	0.07
Information and communication strategy	22.04	0.01	0.17	0.01
Humanitarian Aid	23	0.75	10.84	0.60
Administrative	23.01	0.03	0.40	0.02
Humanitarian aid including aid to uprooted people, food aid and disaster preparedness	23.02	0.72	10.44	0.58
Other DGs		0.39	5.66	0.32
International economic and financial affairs	1.03	0.06	0.84	0.05
Instrument for Pre-Accession (IPA) - Human resources development	4.06	0.06	0.94	0.05
Pre-accession measures in the field of agriculture and rural development	5.05	0.05	0.70	0.04
Pre-accession interventions related to the Structural Policies	13.05	0.22	3.18	0.18
Foreign aid and policy (total)		6.92	100	5.58

¹⁷¹ Including (Multilateral relations, cooperation in the areas of migration and asylum, and general external relations matters; Relations and cooperation with industrialised non-member countries; and Crisis response and global threats to security)

¹⁷² See chapter 14.

In addition, the Member States have their own bilateral assistance programmes and implement their own initiatives with developing countries that are not financed by the EDF or any other Community funds.

15.2 Assessment

15.2.1 Conceptual Framework

Global spillovers vs. supra-European club goods

The policies and instruments mentioned above vary on the one hand, from a thematic point of view; on the other hand, they differ from a geographical perspective. The geographical perspective lends itself to the assessment procedure, as the difference in geographical reach is induced by differences in the geographical extent of spillovers. For example, the Enlargement process and the European Neighbourhood Policy typically aim to incorporate supra-European spillovers with a limited geographical reach. These result in something that could be called a supra-European club goods; the spillovers involved relate to similar cross-border spillovers that drive internal policies (e.g. structural development of peripheral border regions, cohesion, regional environmental spillovers, etc.). The EU works to incorporate supra-European club goods via the enlargement process and the European Neighbourhood Policy (ENP).¹⁷³ One characteristic of supra-European club goods is that they manifest themselves to a lesser extent the more distanced a region is from European borders. Incorporating these spillovers via expansion seems a logical progression. However, there are limits to the EU's absorptive capacity (see Emerson, 2004); amongst other things, because heterogeneity increases with enlargement (see Buti and Nava, 2003). A balance should be sought between the limits to the size of the EU from a governance perspective and the benefits from internalisation of (various) supra-European club goods. This results in a sort of Cobweb gravity model,¹⁷⁴ where different countries share different club goods with the EU. An illustrative example of this is the European Economic Area (EEA), which effectively is an agreement between the EU and Norway, Iceland and Liechtenstein to participate in the Internal Market, while not assuming the full (political) responsibilities of EU membership. Another example is the ENP. The ENP notably envisages a ring of countries sharing the EU's values and objectives; with the objective of strengthening the stability, security and well-being (prosperity) of all concerned by avoiding the emergence of dividing lines between the EU and its neighbours.

The participation in international bodies, on the other hand, addresses multilateral and/or global spillovers. These can be addressed via supra-European governance bodies, such as the UN or the WTO. Alternatively, in cases of global spillovers in specific fields (for example environmental policy); these may be addressed via multilateral agreements (such as the Kyoto Agreement). Development policy is also induced by the fact that there are

¹⁷³ Including the Euro-Mediterranean Partnership, the Middle East Peace Process, and the so-called Northern Dimension. Also the EEA and EFTA are examples of incorporating shared club goods with non-EU members.

¹⁷⁴ Cobweb model (or concentric circle model): the centre seeks to simplify and order the system; with the neighbours grouped according to their shorter or longer geographic/political distance from the centre, with elements of multilateralism or standardisation for each group (see Emerson 2004).

multi-lateral/global spillovers. Firstly, the development of one country/region creates opportunities for the development of other countries via trade.¹⁷⁵ Secondly, the development of less developed regions limits migration flows. Moreover, the equity approach to development cooperation can be substantiated based on arguments of solidarity.

15.2.2 Assessment

The mere fact that spillovers supersede the European level is in itself not an argument to centralise the political actions with respect to these spillovers; internalisation should be sought after at a higher (global) level. However, there are scale economies that give the EU significant leverage in international negotiations (see Buti and Nava, 2003) and hence, EU involvement is warranted. Nuñez Ferrer (2007) states that “[the] economies of scale that could be achieved in external action at EU level are very important, while the EU cannot punch its full weight on the global security stage without pooling its resources.” Despite such benefits from centralisation, the Member States have generally retained autonomy in many international negotiations. Coeuré and Pisani-Ferry (2003) notice that the assignment of competences between EU and Member States externalities and economies of scale on the internal playing field seem to be more relevant than those in the global economy. They state that “unconditional or supervised delegation to the central level takes place only when domestic arrangements essentially require this” (examples are the WTO, the enlargement process and the European Neighbourhood Policy). In other cases, where this functional logic is absent, Member States have generally retained autonomy (examples are the membership of the World Bank, the IMF and the UN). In some cases, a dual track is followed (for example in development cooperation or the G8 summits); in other cases, the policy field is partially centralised according to the extent to which scale economies apply.¹⁷⁶

Below we will apply the assessment procedure respectively to supra-European club goods and to global or multilateral spillovers.

Supra-European club goods

The reasons for assigning competences in enlargement policy and ENP to the European Union are born out of the fact that the spillovers involved are equivalent to the internal spillovers that formed the motives for forming EU in the first place. This notably relates to the observation of Coeuré and Pisani-Ferry (2003) on the domestic externalities and economies of scale, mentioned above. They point out that as a consequence of these internal spillovers, discussions with third countries with respect to many regulatory issues (such as right of establishment, mutual recognition, harmonisation of standards, environmental regulation, etc.) can only be dealt with at the central level. This last argument is particularly relevant with regard to the IPA and ENP programmes.

¹⁷⁵ One of the first examples of international development cooperation that was built on this principle was the Marshall Plan of 1948.

¹⁷⁶ Exemplary here is environmental policy - where the EU has clear international responsibilities in negotiation, but the implementation of agreements (e.g. Kyoto) is delegated to the Member States.

However, IPA and ENP have more dimensions than just regulation. They have a socio-economic, a political and a security dimension. At each dimension there are spillovers and scale economies involved, and each dimension is complementary. Nuñez Ferrer (2007) argues for example that political stability, security and economic growth in neighbouring areas offer opportunities for the EU as a whole. According to Nuñez Ferrer (2007) they are of crucial importance and a particular competence area of the EU. In relation to the socio-economic dimension there are for example:

- scale economies and spillovers involved in pursuing the enlargement of the Single Market (see also Chapter 5);
- possible negative spillovers in terms of migration flows to the European Union as a whole induced by large differences in wealth;
- possible spillovers in the field of environment that may affect Member States at the EU borders (here the scale economies with negotiating power are typically relevant).

Similarly, convergence on the political dimension (democracy, rule of law, human rights and fundamental freedoms) may incorporate (prevent) spillovers. For example:

- if regions along the EU borders are characterised by political instability, or a limited rule of law, and/or little respect for human rights, this may induce migration flows to the European Union;
- political instability could have a destabilising effect on the political climate in neighbouring (Member) States, which may destabilise Europe's internal political balance as a whole.

Furthermore, there are clear spillovers and scale economies involved in security issues, such as:

- the non-proliferation of nuclear arms or the fight against organised crime;
- nuclear safety and energy security;
- illegal immigration and trafficking of various kinds;
- terrorism; and
- transmissible diseases.

The complementarities between the dimensions are numerous. For example, political instability or insecurity may obstruct foreign investment decisions - which counters the efforts with respect of the economic dimension. Moreover, the complementarity also becomes visible such that the EU's influence in the neighbouring regions relies heavily on persuasion rather than power. This is made possible by introducing conditionalities into (financial) programmes, which typically relate to structural investments (infrastructure, education, health care, promoting private sector development etc.). As such, the budget plays a large role in providing incentives to meet the conditionality requirements relating to the non-economic dimension (often referred to as European norms and values).

Multilateral or global spillovers

Some of the spillovers mentioned above are in fact global spillovers (for example, the non-proliferation of nuclear arms, the fight against organised crime and terrorism, and some environmental issues). The incorporation of such issues in the ENP process typically strengthens the EU's position at the global negotiation tables. The measures to deal with global spillovers related to security, environment, or trade are typically dealt

with through negotiation vehicles such as the WTO, G8, UN, etc. In such global negotiation rounds, the budget is not involved. Arguments to centralise these negotiations are typically based on the scale economies that arise from the pooling of votes and voices (see Coeuré and Pisani-Ferry, 2003; Buti and Nava, 2003; Nuñez Ferrer, 2007).

Development policy and humanitarian aid are typical policy fields where scale economies are involved (as coordinated allocation of EU financial assistance could make it significantly more effective), but where Member States feel less compelled to harmonise their foreign aid policies because the absence of externality at EU level (Coeuré and Pisani-Ferry, 2003). However, free-riding problems are involved that would argue in favour of centralised action. For example, humanitarian aid serves as a global non-market based insurance (often funded by developed countries). It finds its *raison d'être* in solidarity and equity arguments and, since it is unconditional and indiscriminate, it is a sort of global public good (non-rival and non-excludable). Hawkins et al. (2006) point out that the classic free-rider problem is likely to arise in the absence of centralised provision. In the European context, this becomes apparent by the fact that although EU members, like other industrialised countries, have accepted a target of spending 0.7% of their GNP on official development aid each year, only Denmark, Luxembourg, the Netherlands and Sweden have reached this target.

Centralisation could incorporate this free-riding behaviour and, furthermore, improve coordination and effectiveness of development cooperation. Lack of coordination results in, amongst other things, an excessive concentration of aid in a few countries and areas and lack in many others. Furthermore, this results in competition between donors to involve officials of recipient countries in their programmes. This competition leads in some cases to corruption. Buti and Nava (2003) state – with reference to Tabellini (2003) and Berglöf et al. (2003) – that coordination of national policies would not be enough, as all these areas concern the executive power of governments and too many bureaucracies are involved. If this is the case, centralisation of expenditures may be more ideal. However, this would happen at the expense of heterogeneity in preferences (certainly in the context of development assistance in the ACP region).

15.3 Conclusions

With regard to supra-European club goods, the normative arguments are valid. The spillover reasons for assigning competences in enlargement policy and ENP to the European Union are equivalent to the internal spillovers that formed the motives for forming the EU in the first place. As a consequence of these spillovers, discussions with third countries with respect to many regulatory issues, but also concerning socio-economic, political and security dimensions, can only be dealt with at the central level.

With respect to global spillovers, the budget is much less involved. Arguments to centralise these negotiations are typically based on the scale economies that arise from the pooling of votes and voices.

In development policy and humanitarian aid scale economies and positive externalities are present. Free-riding behaviour calls for central action. Preferences within the EU

diverge to some extent - certainly in the context of development assistance in the ACP region.

Centralisation may be in the form of coordination, but the case for spending may be less costly.

Table 15.2 summarises the main findings from the assessment made.

Table 15.2 Conclusions on external policies

	Enlargement and ENP	Negotiations	Development and humanitarian aid
<i>Does the following apply:</i>			
Normative test			
Economies of scale	Yes	Yes	Yes
Externalities	Yes	Yes	Yes
Diversity	Some	No	Yes
Pro-centralisation			
Limits to system competition	-	-	-
Second-best	Yes	No	Yes
Complementarity between policies	Yes	Yes	Yes
Lobbying	Yes	Yes	No
Pro-decentralisation			
Self-interest and accountability	No	No	No
Common pool	No	No	No
Lobbying	No	No	No
Credibility of co-operation	No	No	No
Proportionality	Yes	No	Yes
Conclusion role for EU budget	Yes	No	Yes

Role in terms of the budget

There is clear support for central actions. The best way to ensure this is to finance parts of the programmes through the EU budget. This ensures some degree of fair allocation across various beneficiary countries. It seems unrealistic to distribute all development assistance via the EU, simply because 0.7% of GNP is more than half of the EU budget itself. As such, the coordination of assistance will remain warranted to ensure effectiveness, prevent duplication and reduces the amount of tied assistance. Individual

Member States still have the freedom to do more. In fact, this is useful to ensure learning from alternative assistance projects.

There are clear reasons for the current budgetary involvement in development cooperation, but it is unclear to what extent. The free-riding by Member States indicates at least that there is room for more centralisation.

16 Conclusions on the assessment of the current budget

In this chapter we summarise the conclusions of the application of the assessment procedure. Furthermore, the likely implications for the EU budget are touched upon.

16.1 Conclusions per policy field

Stabilisation – No change

From a normative point of view, monetary policy should remain at the level of the Union. This does not have budgetary implications. The current EU budget is not involved in fiscal stabilisation policies. Due to heterogeneity in allocation and redistribution of preferences Member States have opted to remain in control of the fiscal instruments, despite stabilisation spillovers. Eventually, the EU budget is too small to implement fiscal stabilisation policies; otherwise it would have to grow enormously. Policy coordination through the Stability and Growth Pact (SGP) is a feasible solution to address the desire for heterogeneity in allocation and equity; while accounting for complementarities between monetary and fiscal policies.

Public choice arguments on excessive government growth strengthen the case for decentralising decisions on public spending and taxation, as long as common pool problems are curbed with a proper instrument (e.g. the SGP). Given the complementarities between the allocation and equity function of the budget on the one hand, and the stabilisation function on the other hand, the public choice arguments point to decentralising fiscal policies along with the stabilisation function of the budget.

Therefore, in the field of stabilisation no changes in the EU budget are expected.

Social Policies – No change

Europe is highly heterogeneous when it comes to labour market and social policies. Economies of scale in European labour market policy are absent and externalities are likely to be modest. The (current) low mobility of labour mitigates (potential) external effects. Moreover, there is lack of evidence showing either lower labour standards and/or a reduction in social spending due to these external effects. From a normative point of view, there are no strong counter-arguments to decentralised policy-making. As a consequence, interpersonal income redistribution is above all a national policy area which requires no substantial EU involvement. Even if systems competition does show up, its effects could be limited by EU coordination and establishment of minimum requirements.

The current division of employment and social policies between the EU and the Member States concurs thus broadly with the normative arguments. The budgetary role for the EU is modest in comparison to the size of Member State budgets in this area, but is nonetheless useful. For instance, ESF spending for the convergence objective to poorer regions in poorer Member States is justified because these countries do not have the financial and institutional capacity (a scale argument). This argument is missing in relation to ESF spending outside the convergence objective. Also for the budget activities on ‘other labour market policies and social dialogue’ (i.e. ‘Working in Europe’ and ‘Employment, social solidarity and gender equality’), the EU is the right level of intervention. On the other hand, normative arguments are lacking with respect to the European Globalisation Adjustment Fund. However, the complementarity of policies and other political economy considerations can support such a fund, under the condition that support is strictly limited to those (directly) affected by outcomes of trade negotiations. The size of the fund would be limited and would require co-financing by Member States.

Therefore, in the field of social policies no changes in the EU budget are expected.

Cohesion – Depending on objective some (downward) change

Cohesion policy is the second largest item of the EU budget, and is manifested in the European Regional Development Fund (ERDF), the European Social Fund (ESF), and the Cohesion Fund (CF). The amount for cohesion has increased over time in absolute figures and in terms of the share of the EU budget. In particular, the accession of relatively lower-income Member States in 2004 and 2007 increased the need for these funds.

The three objectives of cohesion policy are: convergence, regional competitiveness and employment, and territorial cooperation.

Convergence

EU involvement is justified on many grounds, e.g. complementarities between policies, second-best issues and solidarity between Member States. Arguments for redistribution and preventing emigration from low-income regions also argue in favour of EU involvement. The redistributive argument is complementary to the allocation objectives of convergence. The contribution of the structural and cohesion payments to poorer regions in poorer Member States to a better income distribution and to stabilisation is a welcome by-product, but this need not by itself require EU involvement in cohesion policy. This is particularly the case for most of the structural and cohesion funds that are allocated for regional convergence in the poorer Member States. Here there are clear economies of scale for EU involvement with respect to financial and institutional capacity.

Furthermore, if convergence concerns an entire (or much of a) Member State, the argument for EU involvement is more persuasive than if it is just a smaller territory. Eligibility should, however, be tight and also include substantial co-financing from the Member States to prevent lobbying and common pool behaviour.

Therefore, in the field of cohesion related to convergence the present amounts in the EU budget are justified, but no additional changes would be expected.

Regional competitiveness and employment

In practice, ESF and ERDF aimed at regional competitiveness and employment and flow exclusively to regions in relatively rich Member States which have both (i) the financial capacity to finance these policies, and (ii) the institutional capacity to govern and monitor sponsored projects. For the improvement of regional competitiveness and employment there is thus not much reason for EU budgetary involvement. However, EU co-financing of R&D activities can be justified, but these activities need not be financed in a regional policy framework. Furthermore, the diversity argument in the normative subsidiarity test leans towards national involvement: Member States have better knowledge of the specifics of their regions than the EU, and have better incentives to spend the money more effectively (preventing common pool problems).

Therefore, in the field of cohesion related to regional competitiveness and employment the present amounts in the EU budget are insufficiently justified, and downward budgetary adjustments would be expected.

Territorial cooperation

At present the amounts dedicated to territorial cooperation are small (about 2.5% of the overall cohesion budget). Normative arguments point towards favouring EU policies for cross-border cooperation. The EU budget can provide the means to support decentralised policy-making by internalising external effects of regional policies. The funds could be vulnerable for common pool problems, but to some extent this is limited due to the requirement of request by cross-border regions; moreover, regional co-funding can to some extent prevent crowding-out from other projects.

Therefore, in the field of cohesion related to territorial cooperation there is a role of the EU budget, but since the amounts are relatively small - and may remain so - no significant changes would be expected.

Competitiveness and the Single Market - No change

Most of the policies for Competitiveness and the Single Market involve administrative expenditures related to regulation, coordination, consultation and information. They typically do not involve the budget. Some activities (concerning anti-fraud and standardisation) may require funding, but these requirements remain relatively small.

Competitiveness and single market policies

The normative reasons for common Internal Market policies are overwhelming. Larger markets, resulting from the integration of economic activities and structures, create possibilities to enjoy economies of scale and scope that directly result from the internalisation of (regional) economic spillovers. Moreover, integration allows for internalising external effects of national trade policies towards other Member States. Furthermore, there are scale economies relating to a common external policy (e.g. trade negotiations), which results from the pursuit of a common Internal Market.

To successfully form a single market, some form of tax and customs coordination is required, particularly in the field of fraud and tax evasion and in the form of facilitation of the exchange of information between tax and customs administrations. This would result in scale economies by using compatible information systems throughout the entire

Community. Furthermore, the free movement of goods requires a common set of standards on health and safety issues.

Competitiveness and innovation

Concerning competitiveness and innovation, there are strong arguments for budgetary involvement of the European Union. Competitiveness is clearly a cross-border issue, resulting from cross-border spillovers and scale economies. Despite the fact that innovation and entrepreneurship is very dependent on local circumstances, involvement of the EU may be justified on the grounds of cross-border knowledge spillovers and cross-border spillovers and scale economies in regional growth. The programmes under CIP are mainly targeted at SMEs. Policies in that field feature lower economies of scale and more limited externalities. On the other hand, the programmes are mostly aimed at stimulating entrepreneurship and innovative cultures. Whilst the primary actor involved in this area should be local (regional) and national governments, limited co-funding of the EU may be warranted.

Therefore, while there is a role for the EU budget in the area of competitiveness and the single market, the main interventions are related to regulation, coordination, consultation and information which involve merely small budgets (e.g. anti-fraud, standardisation and certification). In the area of competitiveness and innovation, the necessary amounts are also limited. Overall, no significant change is to be expected.

Research – Upward change

In the area of research, the presence of scale economies and externalities is expected and the role of the EU in providing funding for R&D is therefore appropriate. However, heterogeneity among the members of the EU is large and this heterogeneity has increased with the enlargement in 2004.

In many cases, there are economies of scale in centralising R&D funding, such as EURATOM, JRC, Cooperation, Ideas and Capacities regarding infrastructure. In addition, the programmes Cooperation, Ideas, and People internalise spillovers. Given the economies of scale and externalities involved, it could be argued to shift a part of the national R&D budget to the EU for specific categories. This include, for example, sectors such as defence, space industry, exploration, and infrastructure - where indivisibilities could be high; implying substantial economies of scale.

To the extent that R&D funding is directed to SMEs or specific regions, the role of the EU is less obvious. Economies of scale do not prevail, and externalities of national policies are absent. In addition, heterogeneity among Member States regarding policies aimed at SMEs is probably substantial.

Research is a textbook example of a budgetary role for the EU. Therefore, in the area of research there is a role of the EU Budget, and in many areas, except for R&D funding directed to SMEs, upward changes would be expected.

Education and culture – No significant change

Education

From a budgetary perspective, the role of the EU in the field of education is limited. Given the diversity in preferences and circumstances, lack of economies of scale and externalities, Member States seem to be the appropriate assignment level for primary and secondary education and culture in general.

For higher (tertiary) education this could be different. Substantial heterogeneity in the quality of universities and the absence of evidence of scale economies and externalities, suggests that there is hardly a need for a European education policy. Although there are no convincing normative arguments in the literature arguing in favour of a substantial EU budget, arguments related to the complementarity of policies and second-best solutions can underpin EU expenditures in tertiary education. These arguments relate in particular to the promotion of international cooperation and student mobility; the latter, because it is a precursor to labour migration, and thus contributes to the completion of the Internal Market. Furthermore, it may improve competition between universities. Because most of the EU budget on lifelong learning is reserved for these goals, budget activities of the EU in this area are justified. Examination of the goals and operational tools of these programmes suggests, however, that the two goals of learning programmes (improving skills and mobility) cannot easily be distinguished within the instruments of the sub-programmes. There is scope for the Member States in using instruments aimed at improving skills in these programmes without any link to mobility or partnerships.

With regard to vocational education and training (VET), there are no economies of scale, no external effects and significant heterogeneity. However, the lack of externalities is also due to limited mobility.

Culture

Similar arguments apply to the promotion of cultural cooperation and the promotion of EU citizenship: to promote international cooperation and (labour) mobility. Some of the youth programmes have similar objectives; but other measures of the *Youth in Action* programme (European Voluntary Service, Youth of the World, and youth workers and support systems) have other goals which can better be financed by the Member States.

Therefore, in the area of higher education and culture, there is some role for the EU Budget, but significant changes are not to be expected.

Environment – Upward change

The budget for environmental policies constitutes merely 0.3% of the total budget. The largest part is devoted to the implementation of community environmental policy and legislation. These are, however, other funds to pursue EU-level environmental policy: (i) funds embedded in the Cohesion and Structural Funds and the rural development funds (agri-environmental measures); (ii) research funds on environment, energy and transport included in the 7th Research Programme; (iii) Global Energy Efficiency and Renewable Energy Fund (GEEREF).

The assessment of the current budget indicates a clear role for the EU budget in environmental policies relating to Nature and Biodiversity and to climate change. The main arguments for Nature and Biodiversity relate to the need to invest in preservation in order to address European/global spillovers. Other areas can either be addressed via regulation (Natural Resources and Waste) or do not involve cross-border spillovers (Environmental Health and Quality of Life).

Climate change is a global problem, with important global and intergenerational spillovers of national policies. In addition, there are scale economies in the EU taking up a role in international negotiations like the Kyoto Protocol. These measures typically involve regulatory and market-based measures (Emission Trading Scheme (ETS), procurement, tax incentives, and standards) and do not involve the budget to a great extent. Additional spending may be required to ease the adoption of new technologies and showcases. A further case can be made for central co-funding of R&D for energy-saving and other specific actions in fighting climate change. Centralisation would increase R&D efforts to a more efficient level. Finally, policies aimed at mitigation in developing countries can be centralised.

Therefore, there is a role for the EU in climate change. Although this role is in many cases restricted to regulation and coordination, there is a clear role for the budget, as well and an upward change is to be expected.

Agriculture and rural development – Downward change

Although at present the EU places much greater emphasis on rural development than in the past, the current budget still allocates 81% of its funds to the first pillar – Market and Income Support - and 19% to the second – Rural Development. Programmes of the latter pillar are co-financed by the Member States, which means that total funds devoted to rural development are larger than the amounts in the EU budget.

Path dependency seems to be the main argument for the current existence of direct payments and market interventions. The normative analysis concludes that market policies in agriculture should be abolished, but as long as they exist, they should be part of the activities of the EU; and thus also be part of the EU budget. Arguments in favour of centralisation relate to scale economies in international negotiations, and to negative spillovers from decentralisation negatively affecting the Internal Market. However, the overall consensus on the distorting effects of market interventions and the possible alternatives from regulation strongly question proportionality.

The case for centralisation of direct payments is less clear. Both normative and positive analyses argue for decentralisation of such (personal) income support policies. There are neither clear economies of scale, nor is there any internalisation of externalities if these activities are conducted at EU level. Furthermore, there are considerable differences in the preferences of Europeans on the topic of farmer income support. Because these policies are to a large extent a transformation of previous market and intervention policies, it is understandable that these policies are part of the EU budget. However, economic reasoning suggests that it is sensible to shift these policies to the Member States in the future.

Common pool problems for both Rural Development policies and direct payments, constitute a further reason to concentrate spending at the Member State level. At the level of implementation, this is already happening; though the principle of fiscal equivalence would suggest matching the financing. Some subsidisation of the EU may be justified, however, based on externality arguments related to non-market by-products (multifunctionality). Furthermore, the involvement of the EU could be useful to create platforms to exchange information, practices and results in these areas; in order for regions to learn from each other. The budgetary implications of this last proposal are very limited.

CAP-related items in the EU budget are already diminishing in relative terms according to the current Financial Framework. The main reason to uphold the current budgetary outlays is path dependency. The assessment provided strong arguments in favour of drastically diminishing the CAP budget in due course.

Fisheries (No change) and maritime issues (Upward change)

Maritime policy mainly involves regulatory activities. Its joint budget with fisheries is in practice only devoted to fisheries affairs. Measures that will require funds are mostly distributed among other policy areas that are interlinked with the sea and the coastal environment.

Common Maritime Policy

The Maritime Policy focuses on various issues that, in many cases, can be dealt with via regulation or coordination. In some cases, however, there seems to be clear arguments for EU budget involvement. The Maritime Policy agenda of the Commission has a cross-cutting approach involving multiple aspects of marine management: notably transport, research and environment issues. With transport there are clear spillovers (savings in congestion in land transport) and scale economies (the ‘motor-ways of the sea’ *network*). With environment, the argument of spillovers is particularly relevant when addressing the causes of climate change. Notably there are gains to be made in terms of reduced CO₂ emissions per transported good when transported by ship (this is also a scale economies argument). Furthermore, the potential for making engines cleaner are today much larger in maritime transport technologies than with land transport technologies. This may, however, also require some support for research; the element of sponsoring cooperation (i.e. research networks) is highly relevant here.

Common Fisheries Policy

The fisheries problem is a typical example of supra-national externalities. Controlling the fisheries problem asks for central regulation on the maximum tonnage of fish caught. Subsequently, the centre needs to monitor and enforce such regulation to prevent ‘cheating’ by Member States whose politicians are susceptible to lobby groups and activities. There is little need for budgetary measures. However, the socio-economic impact of regulation may require some (budgetary) compensation mechanisms. Certain compensation payments from the centre seem justified on grounds of equity (or solidarity), but these should be strictly subject to limited durations. Some reservation could be made within the budget for such one-off payments, but it would not justify an increase in the budget for fishery policies.

Therefore, upward changes are to be expected in the area of maritime issues; while no changes are expected in the fisheries sector.

Infrastructure/network industries – Upward change

TEN programmes focus on bottlenecks in infrastructure (e.g. cross-border infrastructures (TEN-T), but potentially also cross-border interconnectors of energy networks (TEN-E)). These bottlenecks often occur for cross-border infrastructure and at the regional level (in which case, these are addressed through the regional funds and Cohesion Funds).

National governments cannot credibly commit to addressing these issues, in which case co-financing by a supranational authority - the EU - is necessary.

Transport services cover road, air, water, and rail transport. Nowadays, mostly the infrastructure is considered as a monopoly and is financed by governments. The network benefits from economies of scale, which would lead to underinvestment; but maintenance and supervision could be handled by one authority which then permits the others to use the network. For air transport, air traffic control is an activity which exhibits clear benefits of scale, while for other transport channels like roads, waterways and canals benefits of scale are not significant.

Some parts of the value chain in energy provision display the characteristics of a natural monopoly with economies of scale and scope. This requires government policies to address the externalities in order to improve the competitiveness of the industry. Moreover, national policies often have external effects on other countries. This requires some coordination at EU level, but not necessarily budgetary involvement. Improving the functioning of the market will result in better price signals which allow for more market-based solutions concerning security of supply. Possible short-sighted behaviour by market participants may, however, require some public funding. The spillover argument would argue for some budgetary involvement from the centre.

In the field of telecommunication, due to the global character of the industry, a case can be made for more coordination of regulatory regimes or even the establishment of a European regulator to improve the industry's competitiveness.

Overall, the role in terms of the budget is quite limited as most market failures can be addressed through regulation and/or supervision. Apart from the TENs, there are no clear expenditures necessary in this respect. Outlays in terms of TENs could be increased to further integrate national markets (mostly for railways and roads) and/or as a result of further integration of national markets (e.g. the need to address rolling blackouts throughout Europe that have become a phenomenon because national electricity networks have become integrated). There may possibly be reasons for outlays in the field of strategic energy storage, but only if markets fail to produce sufficient price signals and/or market participants tend to be too short-sighted.

Therefore, in the area of infrastructure/network industries upward changes are to be expected.

Health and Consumer Policy – No change

The current EU health and consumer policies are justified as an EU activity as long as these serve EU-wide objectives. These - mainly regulatory - policies are to a large extent driven by the Internal Market. In some cases there are economies of scale and external effects of national policies. Heterogeneity is much more limited than in other policy areas. In particular this is the case for food safety, animal health, animal welfare and plant health and - to a large extent - public health. For some parts of consumer policy and public health, policies are not related to the scale of the European market. Member States seem to be the appropriate government level to address these policies. Such activities form only a minor part of the EU budget.

In health care policies, economies of scale of centralisation and externalities of decentralisation are hardly present. There could be a need for a system of increased coordination and information exchange in the European health care sector. Furthermore, internal market policies might increase externalities such as health care tourism. However, empirical evidence has so far not proven this. Diversity in health care policies is determined by national circumstances, such as historical, political and cultural roots, which have to be respected

The current budget follows the subsidiarity principle and no major changes are to be expected in the area of health and consumer policy.

Freedom, security and justice – No change

Although some of the EU budget activities in this policy area have an international dimension, the Member States (or even lower levels of government) are the appropriate levels to address most tasks related to public order. In some cases - in particular with respect to the budget chapters Solidarity (external borders, visa policy and free movement) and Security - there are economies of scale for EU cooperation; and national policies have negative external effects. These policies are also complementary to the free movement and Internal Market policies. The diversity argument is not a dominating argument to decentralise policies and budget in these areas with clear international dimensions.

With respect to migration policies (asylum and immigration), there are economies of scale and externalities of national policies which argue in favour of EU coordination and EU budgetary involvement. although in this case the variety in preferences is larger. However, most of the budget for the integration of third-country nationals is aimed at the integration in the host Member State. The latter and regional authorities know the local circumstances well, and may also benefit from the additional contributions to their welfare systems. Therefore, they are the appropriate level to conduct and finance integration policies. There are no convincing arguments for a large budgetary involvement of the EU for integration of asylum seekers, except for some solidarity if asylum seekers are spread unevenly across EU countries. The current budget for the European refugee fund may therefore increase, but this is critically dependent on the net costs; an issue that has not been resolved.

The current level of spending in the area of Justice and Home Affairs (0.5% of the total EU budget) is warranted and is unlikely to increase in short to the medium term. While

some spending should be reduced (notably outlays on integration of migrants; drugs prevention – a task for individual Member States), other spending may increase slightly (solidarity, external borders, security and safeguarding). Overall, in net terms, cancelling the first and doubling the latter will have hardly any effect on the total budget.

Therefore, overall the present distribution of responsibilities between the EU and Member States reflects the extended subsidiarity principle which is reflected within the current EU budget.

Defence – Upward change

Strong arguments exist in favour of the pooling of resources in peace missions (foreign military interventions). The funds for these missions are covered outside the EU budget, as the Treaty does not allow financing operational expenditure having military and defence implications. For other missions (police, training, etc.), financing through the budget is possible and is indeed granted.

Defence is the prime example of a public good. There are clear externalities involved. If countries have similar geo-political interests, neighbouring countries could benefit substantially from the efforts of a country providing defence. Besides the externalities of providing defence at a decentralised level, countries cannot exploit the significant benefits of scale.

A few aspects prevent the EU from taking more responsibilities and committing the associated spending levels in this area. Firstly, as mentioned the Treaty does not allow for the EU budget financing operational expenditure having military or defence implications. Secondly, some countries are neutral. Thirdly, there is a degree of diversity on the amounts to be spent on defence; and on which types of defence. Moreover, some overlap with foreign (military) interventions exists, as the same pool is used for both.

With respect to Rapid Reaction Forces, there are economies of scale resulting from the fact that not every country has to keep its own Forces on standby all the time. Moreover, cooperation reduces the opportunities to free-ride. Participation in the Rapid Reaction Forces and missions is voluntary. Even if not all Member States want to participate in delivering troops and or military equipment, at least all countries could contribute financially.

In the case of civil protection, economies of scale seem to be limited, as are the externalities of civil protection at national level. There seems to be no overwhelming reasons for any significant EU involvement, although a rapid action force could be effective in case of emergencies.

Given the current constraints set by the Treaty, present EU budget spending on defence is practically nil. It is hard to attribute spending to a specific ex ante budget as the interventions depend on international needs. Moreover, many of the current expenditures are financed outside the EU budget. The direction of spending, whether inside or outside the EU budget is nevertheless very clear.

Foreign Policies – Upward change

With regard to *Supra-European club goods*, the spillovers involved relate to similar cross-border spillovers that drive internal policies (e.g. structural development of peripheral border regions, cohesion, regional environmental spillovers, etc.). The EU aims to incorporate supra-European club goods via the enlargement process and the European Neighbourhood Policy (ENP).¹⁷⁷ One characteristic of supra-European club goods is that they manifest themselves to a lesser extent the more distanced a region is from European borders.

The reasons for assigning competences in enlargement policy and ENP to the EU are thus born out of the fact that the spillovers involved are equivalent to the internal spillovers that formed the motives for forming the EU. As a consequence, discussions with third countries with respect to many regulatory issues (such as right of establishment, mutual recognition, harmonisation of standards, environmental regulation, etc.) can only be dealt with at the central level. IPA and ENP have also a socio-economic, political and security dimension. At each dimension there are spillovers and scale economies involved, and each dimension is complementary.

The participation in international bodies addresses multilateral and/or *global spillovers*. These can be addressed via supra-European governance bodies, such as the UN or the WTO. Alternatively, in cases of global spillovers in specific fields (for example environmental policy); these may be addressed via multilateral agreements (such as the Kyoto Agreement). Development policy is also induced by the fact that there are multi-lateral/global spillovers. In such global negotiation rounds, the budget is not involved.

Development policy and humanitarian aid are typical policy fields where scale economies are involved (as coordinated allocation of EU financial assistance could make it significantly more effective), but where Member States feel less compelled to harmonise their foreign aid policies because the absence of externality at EU level. However, free-riding problems are involved that would argue in favour of centralised action. Centralisation would happen at the expense of heterogeneity in preferences.

There are clear reasons for the current budgetary involvement in development cooperation, but it is unclear to what extent. The free-riding by Member States indicates at least that there is room for more centralisation and therefore higher EU spending.

16.2 Implications for the budget

In the assessment in the previous chapters we considered arguments such as vested interest and path dependency. Although these are not common economic arguments, they are real-world phenomena that can not simply be ignored. Path dependency has also been identified as a key factor in the international comparative study (see Appendix II). In an ideal world consisting of merely economists it is easy to slice off a few billion here and

¹⁷⁷ Including the Euro-Mediterranean Partnership, the Middle East Peace Process, and the so-called Northern Dimension. Also the EEA and EFTA are examples of incorporating shared club goods with non-EU members.

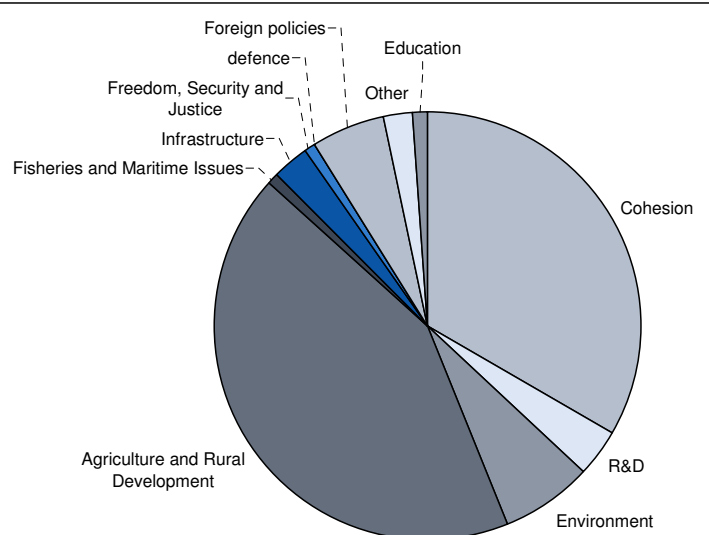
there, but in the real world this is simply not feasible. However, it is of course useful for the political debate to know which direction to go.

Below we present the relative shares of the current budget, visualised in a pie chart.¹⁷⁸ Subsequently, we discuss the implications of strictly following the above economic arguments in reforming the budget, with the aim of illustrating the direction in which EU budgetary reform should go. Finally, we discuss the implications for the budget within the real-world constraints of path dependency and vested interest.

Current EU budget

The current budget is around € 125 billion. The main shares are devoted to Cohesion and Agriculture. After these, R&D, Environment and Foreign Assistance are the largest items in the budget, followed by Transport and Energy (or Infrastructure in Figure 16.1, below). Figure 16.1 visualises the relative shares of the various policy areas.

Figure 16.1 Budget shares in the current EU budget (€ 125 billion)¹⁷⁹



An economic efficient budget

Strictly applying the assessment to the budget according to economic principles would imply that some policy areas would shift from the centre to the Member States: the cohesion spending for the Competitiveness and Employment objective, almost the entire first pillar of the CAP and a considerable share of Rural Development. The EU budget for other policy areas would increase. In some cases, this would imply a shift from Member States' budgets to the EU budget; and thus an increase in the total public spending in the EU (e.g. in R&D, transport and energy and foreign aid). In other cases, this would only imply an increase of the EU budget (e.g. in environment and maritime policies).¹⁸⁰

¹⁷⁸ This pie is using the same figures as mentioned in Table 1.3 in Chapter 1

¹⁷⁹ 'Other' being: Stabilisation, Social Policies, Single Market, and Health and Consumer Policy

¹⁸⁰ The difference being that in some cases Member States are currently involved in public spending; whereas (partly) this is done more efficiently at EU level (i.e. at lower costs – scale economies argument – and / or better reflecting true costs and

A feasible budget

Budgetary reform discussions are generally characterised by resistance to decreases in spending within certain policy areas, and by resistance to increases in overall spending. In practice, this means that changes are gradual. Concerning the European budget, this is not very different. Budget reforms are hindered by path dependencies that have resulted in vested interests and by *juste retour* arguments (e.g. in the CAP vs. rebate discussion involving the UK and France).

Taking account of this resistance towards reform, we argue for gradual yet persistent changes in the direction as indicated by economic arguments. This would mean a gradual decrease of EU spending on the Common Agricultural Policy and on the Competitiveness and Employment objectives at the expense of a persistence of inefficient public spending. The inefficiency is not only related to the fact that the EU is involved in policies for which economic arguments are absent; but is also related to the fact that these choices require resources that cannot be spent on policies that the EU should be involved in.

Table 16.1 below presents both the ‘gradually feasible’ and the ‘economic efficient’ implications for the EU budget. It shows that with regard to many policy fields, the EU budget passes the extended subsidiarity test. Furthermore, the table expresses that in practice, any change to the budget is likely to be gradual; although with some political will, it should be possible to improve efficiency in EU spending.

benefits – spillover argument) - and in other cases there is purely a need for additional spending by the centre (typically in cases where the spillover argument is most relevant).

Table 16.1 Consequences for the EU budget

	Title	Commitments 2007	Changes to the budget	
		As % of total commitments	Gradual	Economic efficient
Macroeconomic	1	0.4	0	0
Social Affairs and Employment	(4)	0.7	0	0
Cohesion Policy	13, 4	31.7	-	--
Competitiveness and Single Market Policies	2,3, 12, 14, 20	0.6	0	0
Research and Development	8, 10	3.5	+	++
Education and Culture	15	1.0	0	0
Environment	7	6.6	+	++
Agriculture and Rural Development	5	40.8	-	----
Fisheries and Maritime issues	11	0.7	+	++
Network industries (Energy, Transport, Information society, Postal sector)	6, 9,	2.6	+	++
Health and Consumer Policy	17	0.4	0	0
Freedom, Security and Justice	18	0.7	0	0
Defence	n.a.	n.a.	?	+
Foreign Aid and Neighbourhood Policies	19, 21, 22, 23	5.5	+	++
Legend:				
Minor increase ->	+	++	+++	++++
Minor decrease ->	-	--	---	----
				<- Major increase
				<- Major decrease

Note: The plus and minus signs indicate the intensity of relative changes in the size of budget chapters.

Part II: Trends and future challenges

This second part of the report provides a description of various trends (globalisation; demographic trends; political trends – such as the integration and enlargement processes; trends in energy scarcities, among others) and extrapolates these into the future. Subsequently, it is examined which challenges these trends will lead to; and whether these challenges will demand significant changes in the EU budget.

17 Prospects

17.1 Introduction

Looking into the future is always surrounded by great uncertainties. Nevertheless, on some issues realistic projections can be made based on current trends. For example, it is generally accepted that the global population will grow and that Europe's population will age. It is also generally accepted that energy from fossil fuels will be more and more depleted, and that the world will have to adapt to climate change – despite current efforts of mitigation. Alongside current trends, current political ambitions assist in outlining the future image. For example, it is reasonable to assume that in 20 to 30 years from now, the current enlargement process will have been successfully concluded; and that European integration will have advanced.

Below we discuss future developments that follow from today's trends and political ambitions. The future image that is outlined results from the following trends and ambitions: globalisation, further economic integration, ageing society, enlargement, and climate change; where globalisation incorporates trends such as world demography and migration, scarcity of resources, and increased global economic integration.

17.2 Globalisation

The term “globalisation” has been used by economists since 1981; however, the concept became more and more popular since the end of the 1980s and during the 1990s. In the broadest sense of the word, the term means ‘international integration’, and can best be described as a process by which the world is increasingly unified and functioning as a single society. Initially, globalisation was strongly associated with trade, but the process is driven by a combination of various other forces, including: technological change, social and cultural forces and political developments (Croucher, 2004). As such, population growth and scarcity of resources are the drivers of globalisation. Climate change is a strong driving force as well and will be even more so in the future. It falls outside the scope of this study to discuss the full scale of globalisation, although it is impossible to discuss the future of Europe without addressing some key trends that shape the process of global integration. Below we discuss future trends in relation to a selection of key elements of globalisation that seem relevant for the EU: world demography and migration, scarcity of resources, and increased global economic integration.

17.2.1 Demography and migration

Trends

The world in 20 to 30 years from now is likely to be more diverse, more inter-dependent, and more unequal: some regions have economically caught up (notably in Asia) with Western economies, others may not have. Particularly in the African region, low economic growth is contrasted with very high figures on population growth. This is the case today, but will also be the case in the years to come – see text below.

World population projections by the United Nations:¹⁸¹

- The world population will grow significantly and will be generated particularly (if not exclusively) in less-developed countries. The highest rates of population growth can be found in Western Asia and sub-Saharan Africa;
- The ten countries which will contribute most to world population growth over the next 30 years are India, China, Pakistan, Nigeria, Ethiopia, Indonesia, United States of America, Bangladesh, Zaire, and Iran. This means that: India will out-grow China, and Nigeria and Pakistan will be new population giants;
- The population will age worldwide, but more so in Western societies (the average age in Europe will be around 45, whereas the average age in Africa will be around 22).

Africa's population will be growing faster than anywhere else (by 50% to 1.5 billion by 2030), with the centre of gravity situated in sub-Saharan Africa (a 65% increase). By 2040, the population in sub-Saharan Africa will have doubled. The UN projects comparable growth of the population in South-Central and Western Asia (by 30% by 2030). In contrast, the UN predicts that Europe will experience a 4% decline in population; and Russia will likely experience a 10% population decline by 2030.

Consequences and challenges

Based on current demographic trends, a study by the European Defence Agency, or EDA, (2006) predicts an increasing concentration in African urban centres (11 African mega-cities of more than 5 million inhabitants by 2025). Many of these people have likely little hope to find employment. Similar developments in urbanisation and similar uncertainties as to how people are to find employment may occur in South-Central and Western Asia. EDA (ibid) warns that these projections may have serious implications for despair, humanitarian disasters and migratory pressures.

Furthermore, food and water shortages (in part resulting from climate change) would give rise to increased potential for civil unrest and significant economic losses - even in robust economies. The consequences will be even more severe in areas experiencing strong demographic pressure. Consequently, migration pressures may increase further as a result of climate change; as indicated in a recent report on climate change and international security from the Commission and the Secretary-General/High Representative (Mr Javier Solana) to the European Council (European Commission, 2008) – see the text below.

¹⁸¹ See <http://esa.un.org/unup/index.asp> and <http://unstats.un.org/pop/dVariables/DRetrieval.aspx>.

Environmentally-induced migration

"Those parts of the populations that already suffer from poor health conditions, unemployment or social exclusion are rendered more vulnerable to the effects of climate change, which could amplify or trigger migration within and between countries. The UN predicts that there will be millions of "environmental" migrants by 2020 with climate change as one of the major drivers of this phenomenon. Some countries that are extremely vulnerable to climate change are already calling for international recognition of such environmentally-induced migration. Such migration may increase conflicts in transit and destination areas. Europe must expect substantially increased migratory pressure."

Source: European Commission (2008), "Climate Change And International Security", Paper from the High Representative and the European Commission to the European Council, Brussels

17.2.2 Scarcity of resources

Trends

Globalisation and growth of economies and populations will likely lead to increased global demand for food. This will not necessarily lead to food shortages. After all, it is reasonable to assume that agricultural industries in advancing countries will experience similar productivity growth figures as European farmers did since the 1960s. Furthermore, increased demand for food from Asia may create opportunities for the African agricultural industry.¹⁸² The danger of food shortages may increase, however, as a consequence of climate change. Climate change may lead to a reduction of arable land, water shortages, increased flooding and prolonged droughts.

Global demand for resources, raw materials and energy will also increase: global energy demand will rise by 55% in 2030 in comparison with 2005 (see EIA, 2007); final demand for energy in Europe will increase with 25% (see European Commission, 2005b).¹⁸³

Consequences and challenges

The above trends will lead to increased scarcity, and thus higher prices, as conventional energy sources will gradually be depleted. For the next 30 years, the reserves may suffice but subsequently the shortages may become more problematic – see text below.

Energy reserves in 2030

Sufficient oil reserves exist worldwide to satisfy the projected demand during the next three decades. However, the decline in conventional oil reserves may constitute a preoccupying signal beyond 2030. It is only partly compensated by an increase in the reserves of non-conventional oil. The reserves of natural gas are abundant and expected to increase by around 10%. There is no constraint on coal reserves over this time horizon.

Source: European Commission (2003).

[However], the increasing dependence of the EU-25 energy system on energy imports (close to two-thirds of primary energy needs in 2030) raises significant concerns as regards the security of supply in the long run. This is especially the case for natural gas given the increasing dependence on gas imports

¹⁸² Notably the CAP has created considerable entry barriers for African farmers to the European market in the past.

¹⁸³ Primary demand will only increase by 15%; the difference is caused by a projected efficiency increase in the production of energy.

from a limited number of suppliers; and the need for long distance transport infrastructures, as well as the increasing natural gas demand in other world regions, such as Asia. In the oil market, supply is increasingly concentrated in the Middle East; while North Sea production declines. On the other hand, the world coal market remains well diversified with abundant supplies.

Source: European Commission (2005b).

17.2.3 Global economic integration

Trends

Globalisation also means that economies will be more and more economically integrated. On the global level, this primarily relates to the capital and goods markets. More foreign capital will be invested in European businesses; and more European capital invested in foreign businesses. The integration of the global goods and capital markets will further stimulate the development of economies, especially in Asia and South America.

Consequences and challenges

Due to global economic integration, competition for European producers from other parts of the world will intensify. The extent to which this will affect the competitiveness of Europe depends, amongst other things, on the functioning and structure of the Internal Market. Further economic integration is an essential determinant of the functioning of the Internal Market.

17.3 European integration

Trends

The Lisbon Treaty is often considered as an important step in European integration; and is seen as essential in order to respond to the challenges of the 21st century.¹⁸⁴ Europe's future competitiveness depends, amongst other things, on the extent to which European integration will advance. Integration can be economic and political in character. Below we make an attempt to discuss both sides separately, but we would like to stress that a strict delineation is difficult because they are strongly interrelated. Economic integration creates a certain level of interdependency that forces politics to follow. On the other hand, the progression of economic integration may be severely hindered by a political unwillingness to cooperate.

Current political integration is to a certain extent limited due to prevailing non-compliance with national and collective objectives (possibly induced by vested interests and path dependencies). As mentioned above, further integration is essential for Europe's future competitive position. The need for further integration, recognised by the Lisbon Treaty, will require European Member States to strive to achieve more political consensus.

¹⁸⁴ See Press release IP/07/1922 13/12/2007 "Commission welcomes signature of the Treaty of Lisbon and calls for its swift ratification", see <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1922>.

Economic integration in Europe has advanced considerably and this will continue in the future. The progress of economic integration may be restricted due to an inherent limit to the mobility of Europeans (due to language differences, local and family ties, etc.). Nevertheless, mobility of people is likely to increase (amongst other things, due to technological developments reducing travelling time, and as a result of an ageing society) or may become less relevant for economic integration because labour can be employed more easily from a distance (due to improved ICT technologies).

Consequences and challenges

Further integration may be helpful in dealing with certain challenges that Europe may face in the future. Further integration will most likely lead to opportunities instead of threats.

First and foremost, the gains from further integration relate to political integration, in the sense that it allows European Member States to reach political consensus sooner and thus react more quickly to changes. Secondly, economic integration (in terms of mobility of capital, goods, services and people) will surely benefit Europe's competitive position; and thereby contribute to withstanding the globalisation pressures. Furthermore, further economic integration in the European Union will likely lead to convergence of living standards combined with a relatively even spread of economic activities (see Venables, 1999). Regional disparities (e.g. between urban and rural areas) may persist, but these concern regional differences within Member States and not between Member States. However, although further integration may decrease regional divergence within Europe, the divergence between Europe and its neighbourhood may persist. In such cases, it is likely that regions along Europe's outer borders will experience lower growth rates, limiting the respective converging forces of integration for them.¹⁸⁵

The most pressing challenge resulting from further integration will be how to deal with regions along Europe's outer borders that could be lagging behind in terms of economic growth. The traditional form of cohesion policy (with its structural character) will likely not be effective as long as the economies on the other side of the borders cannot catch up. In other words, the problem would either require a cohesion policy with a more distributive approach (which we do not advocate – see section 4.2.1), or a structural approach that would focus on investing in the European Neighbourhood.¹⁸⁶

17.4 Ageing society

Trends

Europe's population may experience a modest decline during the next 20 years (about 4%). This is the consequence of low fertility rates (currently 1.5), lower mortality rates and greater longevity; all in all, the European society is ageing. The old age dependency

¹⁸⁵ This relates to the classic hypothesis on backwardness of border regions by Lösch (1944). However, in a sense, this concerns all areas in less favoured locations (such as mountainous areas).

¹⁸⁶ As mentioned in section 4.1.3, the redistributive approach would shift funds from rich Member States to poor Member States without earmarking; whereas, the structural characteristic of today's regional policies in Europe is found in the fact that the transfers are in terms of specific-purpose grants that should "help towards the efficient allocation of resources by taking away bottlenecks and barriers to development" (Molle, 2007:105).

ratio¹⁸⁷ will rise from 37% today to 62% by 2030.¹⁸⁸ As a consequence, public benefits to the elderly will rise (according to the EDA study: from 11-16% of national GDPs today to 17-33% over the next four decades).

Consequences and challenges

Europe's ageing society impacts on public finances; this includes increasing costs of health care, and pensions to be funded by a decreasing taxpaying population. Furthermore, there may be an increased scarcity of young and highly-educated employees. This may negatively affect Europe's competitive position; as many business and public services would face difficulties in finding appropriate skilled staff. In some industries this problem may be mitigated by capital-labour substitution; in other industries this problem may be addressed by larger scales. Furthermore, the scarcity of young and highly-educated employees may encourage European companies to engage in fierce competition for young and skilled workers. This may also increase compensation payments for mobility and thus also may increase mobility as a result.

17.5 Enlargement

Trends

The enlargement process may be limited from a governance perspective (relating to political integration), but the gravity forces that the European Union exerts on its neighbours will remain in terms of trade and migration pressures (i.e. in terms of economic integration). The limits to economic integration seem less constrained than the limits to political integration.

Consequences and challenges

Depending on the pace of the enlargement process, and the pace at which new Member States integrate/converge; the enlargement process is likely to extend the duration of regional disparities in the EU.

One challenge is to determine when enlargement should come to a halt. It may be the case that we will have soon reached the boundaries of EU enlargement. This, however, would still leave room for close cooperation and economic integration (via trade or other areas) with countries in the European Neighbourhood; for example, by including them in the European Economic Area or comparable institutional agreements. As such, further enlargement 'in the broad sense' would simultaneously address some challenges on migration and cohesion as described above: the more the EU integrates economically with the Neighbourhood, the less significant these migration pressures and the problem of sluggish growth of Europe's outer border regions will be.

A more pressing challenge affecting today's enlargement discussion is the challenge of how to deal with the new neighbours after accession of the current candidates. Notably, the accession of Turkey would considerably increase the size of the perimeter of Europe's

¹⁸⁷ Defined as retired population older than 65 as a percentage of the working population aged 15-64

¹⁸⁸ See <http://unstats.un.org/pop/d/Variables/DRetrieval.aspx>.

outer borders. As Europe enlarges, the potential for instability in the (new) European Neighbourhood may increase.

17.6 Climate change

Trends

As the Stern Review has indicated, the effects of climate change on our environment may be large; and if and when the damages appear, it will be too late to reverse the process. As such, we are forced to look a long way ahead with current policy (see also Chapter 8). Although the causes of these changes may be global, and demands actions today from all global players; the future (direct) consequences will differ regionally, and will not be evenly distributed. The poorest countries and people (in Africa, South Asia and the Middle East) will suffer the earliest, and the most. Direct consequences relate to failing crops and food and water shortages, to destruction of eco-systems, and to extreme weather events, etc. In some areas climate change may threaten the basic elements of life (access to water, food production, health, and use of land and the environment) – see text below.

Conclusions from the Stern Review on the direct consequences of climate change¹⁸⁹

Concerning food:

Any temperature increase will lead to falling crop yields in many developing regions (notably the Sahel region).¹⁹⁰ All in all, there will be a rising number of people that will suffer from hunger; with half of the increase in Africa and West Asia.

Concerning water:

There will be significant changes in water availability. Some will have to deal with shortages (particularly in Africa); others will have to deal with increased chances to flooding (especially in combination with melting mountain glaciers). Sea levels may rise, threatening not only coastal zones but major parts of (if not entire) countries. A sea level rise of 1 metre would turn about 56 million people in 84 developing countries into refugees. Again, notably less-developed countries are in the immediate danger zone; although eventually also major world cities including London, Shanghai, New York, Tokyo and Hong Kong will be hit.

Concerning ecosystems:

A large number of ecosystems are unable to maintain their current form. Coral reef ecosystems will be extensively and eventually irreversibly damaged; heavy (permanent) damage to the Amazonian rainforest; many species will face extinction (20 – 50% in the Stern study).

Concerning extreme weather events:

The intensity of storms, forest fires, droughts, flooding and heatwaves will rise; there will be increases in hurricane intensity, leading to a doubling of damage costs.

¹⁸⁹ From the Stern Review (2006).

¹⁹⁰ This seems only to be true for developed countries if temperatures rise more than 3°C. A rise below 3°C may even result in rising crop yields in high-latitude developed countries (in combination with strong carbon fertilisation).

Risk of rapid climate change and major irreversible impacts

Small temperature increases lead to the possible weakening of natural carbon absorption, and potential increases in natural methane emissions, as well as the weakening of the Atlantic Thermohaline Circulation (THC). This may lead to an onset of the irreversible melting of the Greenland ice sheet. A further increase of temperature increases the risks to abrupt, large-scale shifts in the climate system (e.g. collapse of the Atlantic THC and the West Antarctic Ice Sheet).

There are likely to be indirect consequences with global impact that result, amongst other things, from the fact that climate change threatens the basic elements of life for people around the world. Indirect consequences are, for example, environmentally-induced migration pressures and increased global tension that may arise due to conflict over (food and water) resources, due to damage to coastal areas and critical infrastructures, new border disputes may arise induced by loss of land, etc.

Consequences and challenges

Climate change will create the greatest challenges for European and world leaders. These challenges broadly relate to adaptation instead of mitigation, as the latter is more a challenge for today.

Concerning adaptation, the future challenges will be very different from those of today. Higher temperatures will lead to more unstable weather; drought will be followed by more frequent heavy rainfall. Melting glaciers will affect countries' downstream rivers, as well as countries located further downstream. A rising sea-level will impact on those countries located close to the sea. Although the impact will differ from country to country, all countries will face consequences. Furthermore, these direct consequences may result in a variety of global tensions that may severely affect international security. Within Europe, two challenges will emerge directly from the consequences of climate change: Is the EU the natural forum for coordinating actions, or will national or bilateral / multilateral actions suffice? Is there a role for the EU budget in providing solidarity across Member States? On a global scale, Europe will be facing challenges that result from the fact that climate change may turn out to be a "threat multiplier which exacerbates existing trends, tensions and instability"; as The High Representative for Foreign Affairs and Security Policy expressed it.¹⁹¹ Therefore, indirect consequences of climate change may come in the form of tensions that may arise from conflict over resources (notably food and water) due to damage to coastal areas and critical infrastructures. New border disputes may also arise, caused, for instance, by loss of land. Furthermore, the melting of the Arctic may lead to a 'rat race for resources' that could destabilise global international relations.

Mitigation of global warming is less a challenge for the future as it is more a challenge for today. As mentioned in Chapter 8, the focus of attention should lie on reducing greenhouse gas emissions in the European economy and in non-European economies. Policies relating to the European economy should strongly focus on R&D support in terms of the production of technologies, dissemination of knowledge and technologies and through regulatory measures such as taxation, emissions trading, and quotas. Policies relating to non-European economies should focus on the dissemination of technologies,

¹⁹¹ See European Commission 2008.

international collaboration and development aid. The challenges for mitigation result from / relate to further economic integration; economic growth and emission rates; and to development cooperation. In this respect, the future challenges are not that different from those of today. Chapter 1 discusses these challenges in more detail.

18 The future of the EU budget

18.1 Introduction

After having assessed the current budget of the EU and the trends for the coming twenty to thirty years; the following question comes to the forefront: what will be the composition and size of the EU budget in the future? This is not a question that can be answered easily. The composition and size of the budget will depend on many trends and developments. Some of these trends and developments are economic; others are environmental; some are related to security and safety; others are sociological or political. Definitive answers are not at hand. Based on our (mainly economic) assessment of the current budget – as summarised in Chapter 16 and the prospects for the coming decades – see Chapter 17, we know which budget areas are likely to become (more) important in the future. In this chapter, we propose three policy packages to reform the budget in terms of expenditures. Each policy package emphasises several policy fields for which we have good reasons to advocate that EU involvement should be intensified.

We deliberately label the budget reforms in these policy areas as ‘packages’ and not as scenarios. Scenarios describe alternative futures, which in most scenario studies are mutually exclusive. This is not the case here. We present packages that cover only a part of the EU budget. The previous chapters already presented a more or less fundamental basic composition of the budget. It could be decided to reform the EU budget in all three directions or in only one. They could be reformed in a gradual way or more intensely. This could be financed by reducing spending on other budgetary items or by increasing the EU budget. Typically increasing the EU budget in some areas, more or less automatically, implies lower spending in these areas at the Member State level. The choice for one or more of these options is primarily a political one. We do not deal with this choice in this study. We deliver the economic arguments to reform the EU budget in three different directions based upon our assessment methodology and the likely trends and future developments.

The budgetary reform packages are labelled as follows: *Climate Change and (Energy) Resources, Knowledge and Innovation, Common Security and Foreign Affairs*. The rationales for all these three packages are discussed below, including an assessment of the intensity of the changes required. We concentrate on the budgetary implications of these reform packages; although quite often a package involves regulatory policies as well.

The trends and the assessment of the current budget would already imply more government attention in these policy areas than is currently the case. The three packages propose much more drastic budgetary reforms instead of merely following a trend line. These packages require a structural break from the trend. We do not attach explicit

figures to the budgetary changes but we consider that within a policy package, the EU budget has to be increased by 50% or more in these areas. In relative terms, these are rather substantial changes.

These policy packages do not necessarily imply an increase of the total EU budget (expressed as a percentage of GDP). Our assessment of the budget suggests that in the future other policy areas will become less important for the EU budget. Examples are the Common Agriculture Policy and Cohesion Policy. Currently, these are the most important expenditure items of the EU. Transfers between the EU and national budgets could enable the switch in the EU budget towards budgetary policies related to Climate Changes and (Energy) Resources, Knowledge and Innovation, Common Security and Foreign Affairs; and away from direct income support and rural development in agriculture; and from Cohesion Policy that is particularly related to regional Competitiveness and Employment to regions in richer Member States.

18.2 Opportunities for reform

As indicated in Chapter 16, reforming the EU budget should account for path dependencies that have resulted from vested interests and *juste retour* arguments (e.g. in the CAP vs. rebate discussion involving the UK and France). The importance of today's vested interest, however, may lessen due to further integration (notably political integration); and may pave the way for reform. Furthermore, it can be argued that enlargement will make it altogether more and more difficult to apply the *juste retour* argument.¹⁹²

Below we indicate some opportunities for reform that would be in line with the assessment of the current budget along strict economic arguments; but that are likely to meet resistance today. This concerns Common Agriculture Policy and spending on the Competitiveness and Employment objective.

CAP

In the assessment of the current budget, we concluded that the arguments for a Common Agriculture Policy are rather weak. Because of path dependency and vested interests, these funds can only be phased out gradually. The pace of phasing-out may increase in line with the level of (political) integration in the EU. Furthermore, in the face of further enlargement (notably the accession of a largely rural Turkey), the choice for increasing the pace of phasing-out the CAP may be more easily made by the current incumbent Member States.

Cohesion policy

European economic integration will lead to converging living conditions within and across Member States.¹⁹³ Good examples for the decreased need for cohesion policy are Spain and Ireland. For Ireland funds have even been completely eliminated because it has caught up. In combination with further political integration, this implies that the phasing-

¹⁹² See House of Commons (2007).

¹⁹³ See Venables (1999).

out of subsidies for weaker regions in relatively rich Member States may meet with gradually diminishing political resistance. This relates particularly to the current funds for Competitiveness and Employment.

Also the need for convergence policy is likely to decline (both as a result of economic integration and as a result of the success of today's convergence policies), but the extent and pace to which this holds is not merely a result of current trends, and will depend on future enlargement policy choices as well.

In 20 to 30 years time, the EU will operate in a very different world, and not only politics in Europe will have changed. Due to other developments, the conclusion on the assessment of the current budget may have changed and/or politicians will be facing new challenges.

18.3 Climate change and energy resources

18.3.1 Motivation and trends

Climate change will create one of the greatest challenges for European and world leaders. These challenges broadly relate to mitigation and adaptation: mitigation of global warming; adaptation to direct consequences of climate change (that may have a more regional character); and adaptation to the indirect consequences of climate change (that have a global impact). Security and continuity of the energy supply will also be a major issue in the coming decades due to the expected depletion of (some) fossil fuels, political unrest in major oil and gas-exploiting areas, and the need to use environmental-friendly fuels.

Mitigation

Mitigation of global warming is not only a future challenge; it is already a pressing challenge for today's policy-makers. In the future, as is the case today, major focus should be on reducing greenhouse gas emissions in Europe and in the rest of the world. European policies aimed at Europe should strongly focus on R&D support in terms of production of environmental-friendly technologies, the dissemination of knowledge and technologies; and through regulatory and market-based measures such as taxation, the Emission Trading System, and quotas. European policies aimed at the world economy should focus on dissemination of technologies, international collaboration and development aid.

The challenges related to mitigation are related to the fact that with deeper integration of EU economies, the (positive) spillovers of national policies to combat climate change will intensify (especially in relation to the production of technologies). This provides additional incentives for Member States to under-invest. To speed up the mitigation process, these spillovers should be supported - even at a global level - by dissemination of clean energy having low greenhouse gas emissions. Moreover, energy-saving technologies should be promoted. If the EU sees itself as global proponent of mitigation, its primary task would be to support the development and dissemination of these technologies. The above challenge will be even more pressing given the fact that

economic growth will lead to increased production - which is likely to lead to higher demand for energy. This is especially the case for a number of new Member States, as well as for most of the less-developed and least-developed countries – see EIA (2007). A failure to develop and disseminate clean and energy-saving technologies would lead to a severe increase in global greenhouse gas emissions. Besides a leading role of the EU, actions and investments from other large economies, such as the US, China and India will be needed; and this will require intense additional diplomatic efforts.

Adaptation

As the Stern Review has indicated, the effects of climate change on our environment may be large. Although the impact will differ from country to country, all countries will face the consequences, and these direct consequences may result in a variety of global tensions that may severely affect international security.

Within Europe, two challenges are relevant in relation to the adaptation to direct consequences: Is the EU the natural forum for coordinating actions, or will national or bilateral / multilateral actions suffice? Is there a role for the EU budget in providing solidarity across Member States? The answers to these questions are not necessarily affirmative. Firstly, national governments and existing bilateral and multilateral institutions face a major information advantage in addressing specific effects the best possible way. This weakens the case for proportionality of EU actions. Secondly, using the EU budget to address these issues increases incentives for free-riding. For example, a priori knowledge that the EU will (partly) bail out Member States when future disasters strike, lessens the incentive to take immediately preventive measures. EU actions may therefore crowd-out actions by Member States. If solidarity is preferred, however, the disadvantage of this crowding-out effect is possibly outweighed by the (intangible, yet real) benefits from equity. Such a solidarity programme should (like the Cohesion Funds) have a structural (allocative) character. For example, it should focus on river base management (strengthening of dykes, creation of flood areas, etc.) and coastal zone protection (storm surge barriers, flood barriers). Civil protection is also related to this issue. If the risk of natural disasters (such as sea floods and forest fires, etc.), increases due to climate change, it will become more worthwhile to have a Rapid Reaction Force with sufficient capacity in terms of personnel and material. At the Member State level, the risk of such disasters does probably not meet the costs of a professional Rapid Reaction Force. At the EU level, this could be different.

Security of energy supply

Security of energy supply touches upon several issues, such as increased demand due to economic growth; the perceived depletion of fossil fuels; the variety of supply resources, the affordability of high energy prices; the security and reliability of gas and electricity networks and the development of alternative energy carriers.

The envisaged scarcity of traditional energy sources (oil, natural gas) will force companies and individuals to increasingly switch to other (non-traditional) energy sources. As prices of traditional energy sources go up, alternative sources will become more viable. This means that to a certain extent, policy-makers may rely on the market in order to mitigate greenhouse gas emissions. However, sometimes the development of these alternatives has to be stimulated before these can survive on the market. Moreover,

market players may be too short-sighted, and thus need a stimulus. As these new alternatives have to be introduced on a wider scale, the EU seems to be the appropriate actor regarding regulation and subsidisation of new technologies, and R&D.

The security and reliability of gas and electricity networks within the Member States are the prime responsibility of Member States themselves and private or public firms which own and operate these networks. Reliability can be improved within the EU if national networks are inter-connected, so that in times of disruptions alternative transport routes are available. However, interconnection itself may also create spillovers in case of a rolling blackout (as was the case in 2006). Member States do not automatically take into account these overall EU-wide effects. The EU may be the appropriate actor to financially support the development of these networks if all else fails (such as rules on international compensation payments by foreign TSOs in case of black out) – see section 11.2.4.

In Section 11.2.4 we have already looked forward in order to identify possible actions today to mitigate future threats. It is likely that these needs will persist in the future. We concluded that apart from research into alternative energy sources, no major spending at the EU level would be warranted, as long as free-riding can be prevented and as long as markets produce sufficient price signals. The latter may not always be the case and if, in addition, market participants are behaving too myopically (which is possibly the case with strategic investments with long lead times such as gas storage facilities); public investments may be warranted. The spillover and scale effects from such strategic facilities would argue in favour of some co-funding by the centre.

18.3.2 Budgetary package on climate change and (energy) resources

It was argued that the EU has a role to play in the mitigation and adaptation of climate change and the security of energy resources. The EU does not have sole responsibility in these areas; many issues have worldwide implications, whereas other issues may have consequences that can best be dealt with at the national or even regional or local level. If the EU wants to maintain the lead in global climate change issues, and wants to secure energy supply; it also needs financial resources. Research and development of environmentally friendly technologies and new energy carriers have to be supported. This requires a substantial increase in the R&D budget. Also the budget for Environment (currently Budget title 7) has to be increased substantially; in particular outlays of the budget chapters on global environmental affairs, implementation of community environmental policy and legislation, and rapid response and preparedness for emergencies. Rapid response to emergencies is closely related to civil protection. A Rapid Reaction Force for fighting the consequences of natural disasters could also be financed from Budget title 18, the budget for Freedom, Security and Justice.

The awareness of climate change and environmental developments could also lead to more attention for rural development related to the environment and maritime policies. However, in the chapter on agriculture and the environment, we argued that most of the spending on rural development should be shifted to the Member State or regional level. However, there are some externalities involved from the perspective of individual

countries or regions within a country, such as woods and landscape that extend to neighbouring countries. Some EU involvement could be justified, although most externalities can be dealt with at the national level. For this reason, the budget on Rural development shows a small plus in Table 18.1 below. This has to be interpreted as a plus above the trend, which shows a big minus sign, according to our assessment - see Chapter 16. Increased environmental awareness also leads to more spending on fisheries and maritime policies - in particular on conservation, management and exploitation of living aquatic resources and other environmental issues.

Table 18.1 EU budget for the Climate Change and (Energy) Resources package

		Commitments 2007	Future change	
Name	Budget title	As % of total commitments ¹⁹⁴	Modest	Intensive
Research and Development	8, 10	3.5	+	++
Environment	7	6.6	++	+++
Rural Development (Measures under Axis 2 of EU Rural Development Policy - Rural environment)	5	7.8	0	+
Fisheries and Maritime issues	11	0.7	+	++
Network industries (Energy, transport, information society, postal sector)	6, 9,	2.6	++	+++
Freedom, Security and Justice	18	0.7	+	++
Foreign Aid and Neighbourhood Policies	19, 21, 22, 23	5.5	+	++
Legend:				
Minor increase	+	++	+++	++++ Major increase

Source for commitments 2007: http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html and our own assessment.

Also EU spending on energy (included in Budget title 6) has to be substantially intensified. In particular, more financial resources has to be reserved for budget chapters as Trans-European Networks, conventional and renewable strategies, research related to energy and transport, and the security and protection of energy and transport users. Many of the (new) European neighbours (Algeria, Libya, Egypt, Azerbaijan, Ukraine, Belarus, and Russia) export oil and gas to Europe and/or, transport these fuels. Because of the EU interest in maintaining a stable supply, the EU intensifies relations with these countries – which includes a budget to support stability and prosperity in these countries (see CPB/SCP, 2008).

¹⁹⁴ See Table 1.3 (and the explanatory comments therein) for explanations of the breakdown.

18.4 Knowledge and innovation

18.4.1 Challenges

In 2000, European leaders agreed that Europe has to become the most dynamic and competitive economy in the world by 2010. This statement was a political response to sluggish growth in the nineties. Europe's economic perspectives looked less favourable in comparison to those of the US and the emerging giants in Asia. Although the so-called Lisbon Strategy did not deliver huge economic benefits immediately, the situation is changing. The mid-term review suggested a stronger emphasis on job creation and economic growth. This is one of the top priorities of José Manuel Barroso's presidency of the European Commission, together with more emphasis on the implementation of the Lisbon Agenda through national Action Plans. In 2008, much progress has been made with job creation, supported by a favourable economic climate. Productivity growth by increased R&D spending and innovation efforts and increased skills has delivered fewer results. Recently, the European Council declared that the EU should progress with structural reforms, sustainable development and social cohesion after 2010 (European Council, 2008).

Not only the EU itself, but also many others insist on raising productivity and competitiveness in Europe in order to cope with the challenges posed by globalisation, economic integration, enlargement and ageing.

Global economic integration

Most of the trends outlined in the previous chapter affect competitiveness in Europe. A recent scenario study by Brandes et al. (2007) showed the relative decline of European manufacturing due to globalisation. Innovation, knowledge and Internal Market policies can help to mitigate this decline. Rae and Sollie (2007) argue that high education levels, flexible labour and product markets, the development of high tech products, and strong innovation networks can support in coping with the unavoidable consequences of (economic) globalisation. Although many of these aspects have to be addressed at Member State level, the EU is also an important actor in addressing these issues.

Economic integration in the EU

More economic integration in terms of mobility of capital, goods, services and people will give rise to increased spillover effects from national policies by Member States. The strength of the spillover arguments in the subsidiarity test (Chapter 1) will increase. In particular, this applies to the spillovers effects of knowledge and the diffusion of knowledge through trade, foreign direct investment and mobility. This could lead to an under-provision of innovation and R&D by the Member States as other countries benefit from the expenditures. It is unclear why, for instance the Netherlands should promote or subsidise the R&D activities of a multinational company such as Philips, if this firm conducts a lot of these activities abroad (in Belgium, and also in Asia).

Until now, mobility of European workers has been limited (due to language differences, local and family ties, etc.). Nevertheless, mobility of people is likely to increase, in particular among students and the more highly-educated (amongst other things, due to

technological developments decreasing travelling time). This could expand the EU budget. First of all, the demand for promoting mobility (among students) may increase; secondly, in compensating countries for higher education spending on foreign students as tuition fees often do not cover the full costs. Moreover, increased mobility within Europe also increases the demand for transnational European networks. The capacity of transnational roads, railways, canals, etc. is likely to be extended. This could lead to increased demand for EU spending. If more environmental awareness emphasised the need for more transport by railways or canals, the current capacity would be exhausted much sooner.

Enlargement

The enlargement process may be limited from a governance perspective (relating to political integration), but the gravity forces that the European Union exerts on its neighbours will remain in terms of trade and migration pressures (i.e. in terms of economic integration). The limits to economic integration seem less constrained than the limits to political integration.

Cohesion spending is expected to remain within limits, as current spending directed to the Member States that joined the EU in 2004 and 2007 will be reduced due to catching up. Further enlargements may, however, temporarily call for increased cohesion spending.

If we extend the term enlargement to membership of the European Economic Area (i.e. the Internal Market without full EU membership), the entry of the European neighbours (the current ENP countries and Russia) could be important. If the current EU members consider that sufficient purchasing power in the Internal Market is essential for European businesses, a competitiveness fund to develop knowledge and innovation in the European neighbours (the current ENP countries and Russia) could be an important policy instrument.

Ageing

Ageing will have a negative impact on the labour force in Europe (see for example the four scenarios of Europe in De Mooij and Tang, 2003). Active employment policies and a higher pension age can curb the reduction of the labour force, even though for the coming decades the labour force itself will gradually shrink. If employment growth cannot be the source of economic growth, labour productivity has to increase through better technology, and more human and physical capital. Ageing also stresses the importance of knowledge and innovation.

18.4.2 Budget package on Knowledge and Innovation

In spite of all the efforts to increase R&D spending from the current level of 1.9% of GDP to 2.7% (as expressed by the Member States in the national actions plans), the level remains stable - at least for the EU as a whole. As it is likely that R&D spillovers will increase due to continuing integration of Europe, the situation of under-spending of Member States, ignoring the potential benefits for other Member States, will prevail. Substantial increases on direct research and R&D by the EU are necessary to reach this goal. EU expenditures on R&D are directed to projects in which the EU has value added,

both in terms of economies of scale and in terms of the internalisation of external effects of Member States policies. Expenditures on the programmes Cooperation and People should increase. Expenditure on Capacities should increase by less or perhaps not at all as these expenditures are to a large extent directed towards SMEs - which can be better targeted by Member States themselves. Research funding on ICT (budget chapters 09.04 and 09.05) should also be expanded. For relatively poorer Member States which cannot afford spending on competitiveness and convergence in their poorer regions, Structural and Cohesion Funds could be used to increase innovation and competitiveness. In Table 18.2 we mark this as a plus, signifying an increase relative to a declining trend.

Competitiveness can also be improved by promoting and facilitating the Internal Market. To a large extent, regulatory policies by the EU can deal with these topics. However, the budget on Single Market policies is rather small, and for further policy development implementation and monitoring of the Single Market the budget has to be increased. This refers to the Budget titles: Internal Market, Taxation and Customs Union, Trade Policy, Competition Policy, and Enterprise (mainly internal, market innovation - not SMEs' cooperation).

Table 18.2 EU budget for Knowledge and Innovation package

		Commitments 2007	Future change	
Name	Budget title	As % of total commitments ¹⁹⁵	Modest	Intensive
Social Affairs and Employment	(4)	0.7	+	++
Cohesion Policy <i>(Spending on innovation and competitiveness in poorer regions of Member States)</i>	13, 4	31.7	+	++
Single Market policies	2,3, 12, 14, 20	0.6	++	+++
Research and Development	8, 10	3.5	++	+++
Education and Culture	15	1.0	++	+++
Network industries (Energy, transport, information society, postal sector)	6, 9	2.6	++	+++
Health and Consumer Policy	17	0.4	++	+++
Foreign Aid and Neighbourhood Policies	19, 21, 22, 23	5.5	+	++
Legend:				
Minor increase	+	++	+++	++++
				Major increase

Source: http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html and own assessment.

¹⁹⁵ See Table 1.3 (and the explanatory comments therein) for explanations of the breakdown.

Increased integration and mobility of workers and students, in particular, could also increase the need for higher budgets targeted to Education and Culture, Social and Employment Policies and Consumer and Health Policy. For most of these, the budget is limited: so even doubling the budget would not require major resources. For Education and Culture we advocate an increase in the budget to promote schooling and education in other countries - including student grants and loans. Improving skills and lifelong learning programmes are primarily Member States' policies.

For Social Affairs and Employment we do not foresee a shift in competences between the EU and the Member States. However, if economic integration - including worker mobility - increases, the social dialogue becomes more important and spending for this should be increased as new problems with the transition of workers between social security systems of different countries will come to the fore. .

With increasing spillovers between Member States an increasing number of consumer and health issues can be covered more effectively at the EU level. Current spending is mainly related to the development of the Internal Market; and it is expected that this will increase, for example, if new policy initiatives on integrating the services market require less regulation at the national level. Subsequently consumer regulation at the EU level becomes more important, but the budgetary implications in terms of absolute spending levels will be limited.

Further economic integration also requires more transport possibilities for goods, services and fuels. Trans-European networks become more important. As Member States often focus on transport within their own jurisdictions, the role of the EU could be important, in particular for railways, canals and pipelines. If possible, private firms, or Member States should finance these networks. However, the EU has to internalise the positive external effects of TEN's by co-financing. This could make it necessary to increase the size of this budget substantially.

The budget for the new neighbourhood has also to be increased to facilitate their entry into the Internal Market (for goods and services). If the economies of these countries develop, a huge consumer market for Europe's becomes accessible. Moreover, it could increase EU firms' competitiveness by outsourcing parts of their production process to these countries, provided that the political and economic climate is stable.

18.5 Common Security and Foreign Affairs

18.5.1 Challenges

European cooperation on security and justice, civil and military defence, foreign policies, and humanitarian aid is not only the consequence of a common aspiration for increased cooperation. It is also increasingly necessary because of globalisation (including increasing international transport and mobility) and European integration (including the Schengen Agreement in the EU that abolished border controls between Member States). The trends outlined in the previous chapter suggest that the relevance of common action

in these policy areas will increase. This section will argue in favour of a substantial shift of the EU budget towards these policy areas.

Relevant trends

Globalisation, economic growth and climate change could have large implications for security, justice and border control in Europe (including migration policies).

First of all, an unequal distribution of global wealth in combination with the projected demographic developments could create tensions; leading to political unrest and instability in other parts of the world. It is likely that these tensions will be fuelled by the increasing scarcity of natural resources, in particular, energy, land and food. Current projections indicate that African regions and regions in the Middle East and Western Asia will be the epicentre of these developments.

Secondly, migration pressures may result from the developments described above. As mentioned in Chapter 17 migration pressures may increase further as a consequence of climate change.

Thirdly, increased mobility of people and goods also increase the vulnerability for and threat of international criminality and terrorism. National borders are no longer insurmountable hurdles for these kinds of activities. Because the internal borders in Europe are no longer effective control points, European coordination and cooperation become essential to improve security.

Migration

From the above trends it is clear that the most pressing challenge will be how to deal with the increase in migration flows, particularly because Europe may be a primary destination area.

Multiple policy fields are relevant for Europe in dealing with increased global migration flows. Firstly, increased illegal migration flows may (or will) require more outlays in the field of domestic security. Initially, this particularly relates to border control Secondly, a strong increase in migration flows to Europe may increase free-riding behaviour by Member States in receiving them.¹⁹⁶ Consequently there is a need for Europe to act in common concerning receiving refugees. Thirdly, the problem may be (partially) addressed via increased development aid and financing by alleviating the poor local conditions of (potential) migrants. Notably migration originating from the European Neighbourhood may be addressed via this option. Finally, suitable immigration policies are also important for the EU in dealing with an ageing society. Although many reports have already concluded that immigration is not the solution to stabilise the ratio of inactive to active people in the European society; it could mitigate the expected and inevitable problems to some extent, or soften labour shortages in some segments of the labour market.

¹⁹⁶ The UN predicts *millions* of environmental migrants worldwide by 2020 - See EC 2008.

Europe's position in the world

The above-mentioned security threats and migration pressures may require the EU to deploy enhanced foreign aid, and crisis prevention and management capacities.

The importance of actions to raise Europe's future leverage potential may even be more pressing given the fact that Europe will face a general reduction of its economic and political power in the world. This is the likely result of a foreseen (economic) rise of Asia, and the consequence of an ageing European society. Both trends will have a negative impact on Europe's share in the global GDP. These developments will impact on the position of Europe in the world and its leverage power (not to mention the effect on individual Member States). The development of common security and foreign policies could support Europe's position in the world. The new Lisbon Treaty already contains many provisions which contribute to this development, such as the establishment of a foreign service.

An increased EU role in international conflict prevention and management will require considerable additional expenditure. Currently, the EU is the largest economic power in the world with a market of 500 million consumers and many multinational companies; its political and military powers do not reflect this.

18.5.2 Budget package on Common Security and Foreign Policies

All in all, there is a need to reinforce foreign and security policies. As discussed in the assessment of policies in the field of Freedom, Security and Justice, and in the field of Defence and Foreign Policies, EU actions can be more efficient than individual Member State policies in many of these areas (although not in all - see chapters 13, 14 and 15). Common policies in security, foreign affairs and defence could be more effective in supporting security and stability in the world than Member State policies.

If the EU wants to develop its security and foreign policies further to cope with the identified challenges, the budgets on Freedom, Security and Justice, on Defence and on Foreign Aid and Neighbourhood policies have to be increased substantially. With respect to the budget on Freedom, Security and Justice, principally spending on the budget chapter on solidarity (external borders, visa policy and free movement) has to be increased. The migration projections require effective border control (which is an EU-wide responsibility) and a common asylum and visa policies. Also spending on the budget chapter for migration flows has to be increased - but not on the budget article dealing with the Migration Fund, since the integration of foreigners in society is mainly a national affair. Due to the rise of international criminality and terrorism and lack of border control inside the EU; spending on the budget chapters on security and safeguarding liberties, justice in criminal and civil matters and policy strategy and coordination also has to be strengthened substantially.

A substantial EU role can be foreseen in military defence, intervention and foreign military aid and in a common foreign and security policy. This demands financial resources to support a Rapid Reaction Force, military equipment and military interventions abroad. Under the present and forthcoming treaties, operational expenditure

with military and defence implications has to be financed by the Member States themselves - which could lead to free-riding behaviour by non-paying Member States on intergovernmental budgets such as the EDA, or other organisations, e.g. NATO. For civil protection, the budgetary requirements are less challenging. Based on our assessment we only foresee a necessary EU role in the creation of a Rapid Reaction Force, supplied with the necessary equipment to deal with national (natural) disasters.

A common foreign policy also requires a substantial budget. Resources are needed to develop and maintain good external relations, including with Europe's neighbours (Budget title 19), development and relations with ACP countries (Budget title 21), and humanitarian aid (Budget title 23). Table 18.3 present the implications for the EU budget.

Table 18.3 EU budget for Common Security and Foreign Policy package

		Commitments 2007	Future change	
Name	Budget title	As % of total commitments ¹⁹⁷	Modest	Intensive
Freedom, Security and Justice	18	0.7	+	++++
Defence	n.a.	n.a.	+	++++
Foreign Aid and Neighbourhood Policies	19, 21, 22, 23	5.5	+	++++
Legend:				
Minor increase	+	++	+++	++++ Major increase

Source: http://eur-lex.europa.eu/budget/data/D2007_VOL4/EN/index.html and own assessment.

As mentioned earlier the EU budget could be reformed in all three directions or in only one. They could be reformed in a gradual way or more intensely. This could be financed by reducing spending on other budgetary items or by increasing the EU budget. Increasing the EU budget in some areas more or less automatically implies lower spending in these areas at the Member State level. The trends and the assessment of the current budget would already imply more government attention in these three policy areas than is currently the case. The three packages propose much more drastic budgetary reforms, however, than simply following a trend line. These packages require a structural break from the trend.

¹⁹⁷ See Table 1.3 (and the explanatory comments therein) for explanations of the breakdown.

Appendix I: Methodological working paper

1 Introduction

1.1 Objective

This document provides an overview of existing literature dealing with government intervention in federal-like unions consisting of multi-layered governments. As such, the document tries to develop an assessment procedure for determining *which* government (layer) should deliver *what* kind of policy in order to give interpretation to the three classic government tasks: stabilisation, equalisation and allocation.

In practice, this question is surrounded by political choices; and implementation is affected by balances of political power within the union. However, in this working paper we strive to follow as much as possible the lines of *normative* reasoning for which economic literature gives points of departure. In doing so, several steps have to be considered to determine what level of government should be responsible for which policy area.

Step 1: What are the reasons for government interventions?

These reasons typically consist of the presence of market failures (related to allocation, redistribution, and stabilisation). Paternalism (the presence of merit goods) could be added separately, or could be included under the heading allocation. In addition, is co-ordination between these potentially conflicting roles (allocation, redistribution and stabilisation) required?

Step 2: What instruments are available to intervene?

There are five forms of intervention to address the allocation problems including: (semi) governmental production; (Pigouvian) subsidisation or taxation; regulation; provision of information (or regulation on information disclosure); and Coase-like solutions (assigning property rights and creating markets). In this study on EU spending, we focus on the interventions which have serious budget implications such as (semi) governmental production and subsidisation or taxation. We focus less on regulation and supervision as these generally involve less significant budgetary costs.

Step 3: Which government (layer) should do what?

A logical next step would be to identify the *most appropriate* instrument for intervention: *how should the government intervene?* Addressing this question requires a social cost-benefit analysis that typically weighs up the costs of intervention (including any distortions it may cause) against the benefits (where the size of the benefits may vary with each policy intervention). In a multi-government setting, this step should be integrated with simultaneously identifying the most appropriate government level for intervening. Hence, the question becomes: *which government level should do what?* As such, a

subsidiarity test (see below) should form an integral part of the social cost-benefit analysis. The practical implementation of this integrative exercise could be seen in the *proportionality* requirement, which is embedded in the Treaty.

1.2 Theoretical background

The *subsidiarity principle* (embedded in the Treaty) requires taking as little centralised action as possible. The principle of subsidiarity as such is neutral regarding the optimal degree of centralisation.¹⁹⁸ In line with Oates' *decentralisation theorem* (1972), assessing subsidiarity involves weighing up the costs and benefits of centralisation - which can result in centralisation but also in decentralisation. The literature on fiscal federalism classifies these costs and benefits respectively as 'heterogeneity' and 'proximity to beneficiary' vs. externalities and scale economies (alternatively the benefits and costs of decentralisation). In addition, the test should account for complementarities between policy areas.

The test is based on an economic efficiency perspective, but (EU) countries could also have other reasons for cooperating: out of solidarity with other Member States (in particular the new ones), or else for paternalistic or altruistic reasons.

Next to fiscal federalism, the analysis strives to incorporate views from 'political economics', 'institutional economics', and 'public choice'. As such the analysis should take care of:

1. the consequences for competitive jurisdictions;
2. the specifics of the European Union (e.g. importance of heterogeneity and the extent of mobility of individuals – particularly when comparing international examples);
3. the feasibility of centralisation (government failure, costs of coordination, heterogeneity or median voter argument).

Most of these elements could be incorporated into the framework of an expanded subsidiarity test (see Ederveen et al., 2006), which goes much further than the original trade off for-centralisation of Oates (1972).

Finally, the cure must be proportional to the disease. Proportionality requires that no more than what is necessary to achieve the goals of the actions should be done at the central level.

¹⁹⁸ In conjunction with proportionality, however, the principle implicitly assumes, as does Oates' *decentralisation theorem*, that lower-level governments are, across the board, in a better position to efficiently (in accordance with local preferences) provide public goods. After all, the proportionality principle argues that no more than what is necessary to achieve the goals of the actions should be done at the central level. Where it is possible and efficient, states should play the primary role in policy implementation.

1.3 Outline

Section 2 of this paper will discuss steps 1 and 2, respectively; answering the following questions: *What are the reasons for government interventions?* (section 2.1) and *What instruments are available to intervene?* (section 2.2). The section concludes by stating that a social cost-benefit analysis should weigh up the costs of intervention against the benefits. Section 2 discusses the reasons for government intervention and possible instruments in general. This is a primer for the building blocks of our assessment procedure for answering step 3 (*How should government involvement be allocated over various policy levels insofar as government involvement is related to budgetary items?*). Section 3 will discuss the various arguments for and against centralisation in detail. The analysis is based on a discussion of theories of fiscal federalism (sections 3.1 and 3.2). The analysis proceeds with a discussion of insights from political and institutional economics (section 3.3) and some remaining arguments (section 3.4). In section 4 we construct an assessment procedure, which should provide the basis for an extended subsidiarity test.

2 The role of the government

2.1 Reasons for government intervention

The classic functions of the government (as explained by Musgrave & Musgrave, 1989) are threefold: stabilisation, equalisation, and allocation. Equalisation is rather straightforward and involves, in addition to choosing optimal instruments, political choices. Stabilisation refers to macroeconomic stabilisation, but also to safety and security. The allocation function refers to government intervention in the presence of a (combination of) market failure(s). Below, we provide a list of these market failures that may provide a reason for government intervention. With regard to an assessment of EU spending, equalisation and allocation seem to play a more important role than stabilisation.

The four classic forms of market failure that provide reason for government intervention are¹⁹⁹ public goods, externalities, market power (arising from returns to scale) and information problems. Another well-known argument is paternalism, together with (de)merit goods.

Public goods

Public goods are generally characterised by the presence of both non-rivalry and non-excludability in consumption. Non-rivalry indicates that consumption of one individual good has no impact on the possible consumption of another individual one, abstracting from congestion. Non-excludability means that no one can be excluded from consumption at non-negligible costs. Typical public goods include lighthouses, national defence, and possibly income redistribution. Public goods are not provided without government intervention, because these cannot be provided privately in a profitable way.

Club goods can be considered as semi-public goods. The consumption of club goods is non-rival, but excludable. A typical example is a swimming pool. Private provision of these goods is possible, although pricing may be considered too high if ‘membership’ is low (and the fixed costs of provision are high).

Externalities

Externalities exist if an activity generates effects (like pollution, congestion, and home-ownership) that are not taken into account in the private optimisation process (like the profit maximising behaviour of a firm). Consequently, there will not be a socially desirable level of production / consumption; too much in case of negative externalities

¹⁹⁹ For a general listing of market failures and reasons for government intervention, see, for instance, Stiglitz, 2000, Rosen, 2002 and Musgrave and Musgrave, 1989.

(pollution, noise), too low in case of positive externalities (schooling, see below under merit goods).

Across the board, the presence of externalities arises due to a lack of property rights. Government policies can have externalities, as well. A well-known example is environmental policies to limit e.g. CO2 emissions. If, for example, Germany reduces these emissions, its immediate neighbours may benefit without having to pay for it. The problem arises because there are no clearly-assigned property rights to clean air; so Germany cannot charge a price for the positive spillover effect, nor can it exclude neighbours from free-riding on its efforts.

Returns to scale (market power)

Increasing returns to scale give rise to a decreasing average cost of production, which creates tendencies for natural monopolies to arise. Monopolies create inefficiencies, as the quantity provided is generally too low; whereas the price is too high. Oligopolies are also inefficient, as prices are generally higher than average/marginal costs.

Imperfect or asymmetric information

Imperfect information may lead to non-transparent markets and, as such, may give rise to a mismatch between supply and demand. Asymmetric information is likely to lead to allocation problems in various ways. If one party on the market has more information than another party, adverse selection and moral hazard can occur. Adverse selection occurs, for example, in insurance markets; where high insurance premiums attract mainly high-risk parties, since a high premium is still a reasonable price for their risk. Lower-risk individuals select themselves out of the market, as they are unwilling to pay such a high price to be insured. Moral hazard occurs because when insured, people are willing to run higher risks because they are insured. Furthermore, information asymmetry may give rise to a famous problem analysed by Akerlof (1970): quality deterioration resulting from adverse selection.²⁰⁰

(De)merit goods / paternalism

The presence of externalities strongly relates to merit goods, as the merit is in most cases related to external spillovers. A merit good is a product - such as education - which consumers may undervalue but which the government believes is 'good' for consumers (alternatively there are demerit goods that consumers may overvalue; whereas governments believe are 'bad' for consumers, such as alcohol). As such, merit goods would be under-provided in a market economy. This is because they have external benefits that people would not take into account when making decisions about how much to consume.

Another example is vaccinations. As a result of people being vaccinated, diseases are kept out of the country, but if it was left to the market, many people might choose to take the risk and decide not to be vaccinated.

²⁰⁰ Akerlof (1970) himself presented the example of the used cars market (the market for 'lemons').

2.2 Government interventions - A typology

There are five forms of intervention to address the allocation problems. These include:

1. (semi) governmental production;
2. regulation (including regulating markets and compulsory (prohibiting) legislation);
3. Pigouvian subsidisation or taxation;
4. provision of information (or regulation on information disclosure, which is related to option 2); and
5. Coase-like solutions (assigning property rights and creating markets).

Below, we will discuss these forms of intervention in relation to the allocation problems discussed above.

Public and merit goods

Although it has been pointed out that merit goods often find their *raison d'être* due to the presence of externalities, we discuss them here in relation to public goods. The reason is that from the perspective of the European Commission, public goods and merit goods are services of general economic interest on which the Member State can claim competence.²⁰¹

Public goods, by nature, *should* be provided by the government (governmental production). Actual provision may take place by private firms (semi-governmental production), since this may be more cost-efficient (particularly in the case of semi public goods). However, in the absence of government intervention, the good would not be provided.

The situation for merit goods is different; and the government should only be involved in marginal decisions. In such cases, Pigouvian subsidies (or taxes) may stimulate (or discourage) consumption of (de)merit goods. Furthermore, the government could impose compulsory legislation as, for example, is done with regulation concerning obligatory wearing of seat belts or the compulsory vaccination of infants. Alternatively, the government may launch information campaigns to inform the public about the 'good' (or the 'bad') of consuming that particular good.

Market power (due to scale economies)

Increasing returns to scale lead to monopolistic structures. The role of subsidies in this context is in fact limited to subsidising the entry of competitors. Alternatively, governments may choose to provide the good / service themselves. Both of these options may increase consumer welfare, but will not lead to Pareto efficiency (allocative efficiency) - as strict regulation of a monopoly is generally the most efficient solution.

Externalities

The economics literature points to several ways to tackle problems arising due to externalities:

201 See: Green Paper on Services of General Economic Interest, COM(2003) 270 final version.

1. **Alternative one** is to give a Pigouvian subsidy (or a negative tax) in the case of an externality. The (marginal) subsidy should be equal to the marginal benefit (in case of a positive externality) to increase private benefits (marginal revenue) to marginal social benefits. Several problems arise, however. Firstly, the marginal benefit (the externality) has to be measured. Secondly, the subsidy has to be marginal. Thirdly, the subsidy has to be financed (generally by distorted taxation).
2. **Alternative two** is application of the Coase theorem. The Coase theorem informally states that in the presence of complete competitive markets and in the absence of transaction costs; an efficient set of inputs to production and outputs from production will be chosen by agents, regardless of how property rights over the inputs have been assigned to the agents. In other words, private bargaining will lead to the internalisation of externalities. In practice, hardly any of the restrictions are likely to hold - which thus renders the Coase theorem useless in the absence of government intervention, such as in the assignment of property rights and the creation of (transparent) markets. A prime example of this strategy is to create a market for tradable emission permits.
3. **Alternative three** is a set of rules and regulations. This may take the form of outright prohibition, or of strict limits to, for example, emissions. It is difficult to imagine this instrument as a panacea for positive externalities, however.

The strategies mentioned above are mainly solutions to the externality problem, and even as such, the answer is not always satisfactory. Marginal stimulation of schooling can only occur if it is subsidised, but subsidies require tax revenue and taxation distortions (as lump-sum taxation can be ruled out on equity grounds).

Information problems

Information asymmetries can be tackled by government regulations on information disclosure, if it is assumed that markets do not provide the information autonomously. Examples of such regulations include the Financial Explanation (de Financiële Bijsluiter) that has to accompany any complex financial transaction in the Netherlands.

Furthermore, the government may impose a system of accreditation and certification to reveal information (if the market does not already provide such a system). Such policy may be applicable to address the problem of quality degradation due to adverse selection.

Information asymmetries can also be dissolved by, for example, loan guarantees (which are a form of governmental production), or by basic coverage and/or universal acceptance of the insurance market (regulation).

Equity

Finally, we come to the issue of equity. Equity may refer to income equality which may be addressed by means of taxation / subsidisation. In addition, governments may provide for insurance against loss of income to protect the weaker labour market participants. Equity may also refer to other forms of equality, for example in relation to risk. A typical example is the risk-sharing principle in health insurance.

Choosing between policy options

The choice among policy measures should be based on a social cost-benefit analysis that typically weighs up the costs of intervention (including any distortions it may cause) against the benefits (where the size of the benefits may vary with each policy intervention). The next step is to answer the question regarding which layer of government would be most appropriate to intervene (this will be discussed in more detail in the next section). As such, this question should form an integral part of the social cost-benefit analysis - which should provide the answer to the question “*which* government (layer) should do *what*?”

3 Division of tasks across multi-level governments

In searching for arguments for centralisation or decentralisation of policy-making, the basic economic theory of fiscal federalism explores the trade-off between preference matching (Oates 1972:54) and internalisation of cross-border external effects or economies of scale (Oates, 2005). Based on the normative framework of fiscal federalism and the related subsidiarity principle, three criteria can be identified on which to base this trade-off:

1. the presence of positive or negative spillovers/external effects of policies;
2. scale economies in policy-making (due to administrative efficiency);
3. (a) heterogeneity in preferences and basic economic conditions between Member States; and
(b) proximity to beneficiaries – spatial limitations to benefit incidence.

The principal motive for *decentralisation* is to match the variety of preferences that exist in different jurisdictions (or Member States in case of the EU) with the provision of public services (heterogeneity and proximity to beneficiaries).²⁰² In contrast, *centralisation* may be warranted when a national policy of a Member State has consequences for another Member State that are not taken into account in its decision-making process (cross-border externalities of policies). In addition, the presence of fixed costs or network effects may make decentralised policies less than ideal, as centralisation benefits from economies of scale (and scope).

This trade-off leads to a functional subsidiarity test to assess vertical government responsibilities in individual policy areas. Furthermore, while assessing the distribution of vertical responsibilities across layers of government in relation to various policy areas; one has to take into account possible complementarities between policy areas. For instance, a common monetary policy (with a single interest rate) may require regional (national) (redistributive / structural) development policies to which sectoral business policies (industry development) may be complementary.²⁰³

²⁰² There are spatial limitations to benefit incidence, which may, independently of local preferences, point to the optimality of decentralisation.

²⁰³ See Raabe (2006), Industry structures and monetary policy effectiveness, Universitaire Pers Maastricht, Maastricht

3.1 Fiscal federalism

3.1.1 Stabilisation and equalisation

The literature on fiscal federalism (Oates, 1972; 1999; 2002 – Musgrave; 1952; 1965-Bird, 1999) suggests that the macroeconomic stabilisation and equalisation functions must reside primarily with the central government. The basic arguments are based on some fundamental constraints that limit lower-level governments from performing these functions effectively. Constraints may be found in the limited means for local governments for macroeconomic control of their economies (Oates, 1999:2): the central government is typically responsible for regulating the supply of money and credit. Moreover, stabilising (counter-cyclical) fiscal measures is most effectively conducted at the central-government level. Furthermore, sub-central governments are often limited in their capacity to engage in deficit spending on the current account (Oates, 2002:38). Constraints can also be found in the fact that the mobility of economic units inhibits attempts to redistribute income (Oates, 1999: 2, Tiebout, 1956). Finally, there are spillovers from stabilisation that cannot be internalised.

In the context of the European Union, this division of these functions among central and sub-central level is, however, less obvious. Let us first consider the stabilisation function. Not all countries have entered into monetary union (for instance the UK and Denmark) and they seem to do just fine by regulating the supply of money and credit themselves. In addition, macroeconomic cycles do not necessarily coincide - not even within monetary union. One of the reasons for non-synchronic cycles is the diverging trading patterns of EU countries. The currently relatively small budget (and set of (tax) revenue instruments) at the central level also severely limits its ability to properly exercise the stabilisation function.

For at least these three reasons, stabilisation policy is not conducted in Europe at the central level. However, Oates (2002:43) points out that “this might not be a serious problem if the Member States were in a position to perform this function. But the fiscal limitations [resulting from the Growth and Stability Pact] on their budgetary activities seriously restricts their scope of action”. Furthermore, monetary union may give rise to moral hazard by national governments, as Di Gennaro (2005) argues. Moral hazard may arise, for example, when national governments are able to share their national debts with all of the other Member States while enjoying low interest rates (without, however, actually reducing their debts). This argument relates to the common pool problem (Goodspeed, 2002). Therefore, the lack of stabilisation policy at the central level has also some disadvantages.

The limited size of the central budget also inhibits the upper-tier’s ability to engage in income redistribution policies (in the form of spending). Furthermore, although the mobility of individuals within the Community’s territory may not yet as be fully-fledged, Sinn (1994, 1997) argues that growing fiscal competition and increased mobility across national borders may result in serious constraints on redistributive programs in individual nations. An empirical study in the United States by Feldstein and Vaillant Wrobel (1998) is illustrative in this respect. The authors found that state and local governments are inhibited in their redistribution policies as the effects were undone by relocation of

production factors (labour and capital). From this perspective, there may be arguments to centralise European equalisation policies. However, from the point of heterogeneity of preferences (see also below) Europeans may prefer income redistribution to remain under the control of their national governments to better approximate local preferences on equity (even though this could be incompatible with policies promoting factor mobility and the Internal Market). This does not necessarily indicate any central spending, but may point towards some form of coordination at the central level.

3.1.2 Allocation

The allocation function is concerned with the (regulation of the) production of goods and services for which competitive private markets fail to operate efficiently. For governments to intervene, first it has to be shown that markets fail and that there is a need for government intervention. The classic arguments for market failure are ‘information problems’, ‘externalities’, ‘market power’ (often arising from the presence of scale economies), and ‘public goods’ which are discussed in section 2. It goes without saying that the cure must be proportional to the disease; that is, the benefits from correcting the market failure must exceed the costs. Furthermore, intervention must be established by the government layer (central or sub-central) to which the intervention is most appropriately assigned. In the choice of the union concerning what and how much should be centralised, traditional fiscal federalism (Tiebout, 1954; Oates, 1972; and Musgrave, 1965) prescribes a trade-off between the benefits of scale and internalisation of external effects on the one hand; and the costs of heterogeneity on the other.

For the European Union, Alesina et. al. (2001:3) state that “the most general implication is that the EU – like any union among heterogeneous countries – should focus exclusively on policy areas where economies of scale are large, and internalising externalities is important; and should delegate to national or lower-level government those policy areas where heterogeneity of preferences is predominantly relative to the benefit of scale.” These three critical elements for the assignment: economies of scale, cross-border externalities and heterogeneity of preferences. All three elements are discussed below.

Economies of scale in policy making

Economies of scale provide a rationale for centralisation. When policies are associated with high (sunk) costs (or when other drivers for declining average cost curves are present); decentralised policy-making is bound to be less than ideal. In such cases, centralised policies could improve welfare. Practical examples are CERN, a physics laboratory near Geneva (Switzerland) that is supported by many European countries, and the Galileo Project - which is a European satellite navigation system. Other examples could be found in infrastructural investments where scale economies may be caused by network effects.

Cross-border externalities

Cross-border externalities arise when a national policy of a Member State has consequences for another Member State that are not taken into account in its decision-making process. Therefore, from an efficiency point of view, countries will generally invest too little (too much) in policies that generate positive (negative) spillovers. Investments in Research and Development (R&D) provide an example of possible

positive externalities; (fighting) cross-border pollution is an example of negative (positive) spillovers. In the literature, the argument of *public goods* is often embedded in the externality issue.²⁰⁴ Breuss and Eller (2003:2) refer to several authors²⁰⁵ when they state that “sub-national provision of pure public goods would be inefficient and can therefore be excluded; whereas the provision of public goods, which are non-rivalry only at the local level, can be differentiated spatially.”

Heterogeneous regional preferences

Heterogeneous regional preferences may lead to inefficient governmental production at the central level. Oates (1972:54) formalised the (de-)centralisation question in the *decentralisation theorem*: given certain assumptions on policy-making (these are: benevolent and perfect governments, policy uniformity, and centralised decision making),²⁰⁶ decentralisation will bring welfare gains in the likelihood of preference heterogeneity; as outputs can be diversified in accordance with local preferences and conditions. An argument for inefficient governmental production at the central level is that it may be at too far a distance away from local interests (relative to sub-central governments) and, as such, it is faced with high costs of information, transaction and control; a point already made by Hayek (1945). Tiebout (1954 and 1956) argued that governmental production would resemble local preferences more when provided by competing state governments. Given the assumption of mobility of individuals (and resources), a large number of jurisdictions, unlimited policy options and the absence of (policy) spillovers;²⁰⁷ individuals choose the jurisdiction that best satisfies their preferences for public goods and taxes (the ‘exit option’). As such, governments are forced to have a ‘market-oriented’ approach in the provision of public goods, as they compete with other jurisdictions. Information regarding concrete preferences is also needed by sub-central governments. The exit option may, however, solve the preference revelation problem, if mobility of people is not hampered (Breuss and Eller, 2003:3). Needless to say, in practice most of these assumptions are violated. This does not imply that public goods should not be provided locally. Oates (2005: 354) argues, for example, that also with immobility (or limited mobility), heterogeneous preferences will exist, and local provision of public goods would be superior.

Fiscal federalism does not (explicitly) address the allocation issues of information problems and merit goods. However, these issues are addressed in section 3.3.

The arguments above indicate that when preferences differ over jurisdictions, *preference matching* is the main motive for decentralisation. Some differences in preferences relate to differences in views on how to address an allocation problem; for instance Alesina and Perotti (2004) emphasise the distinction in Europe between the *dirigiste* attitude, characterised by heavy government intervention in markets, and the more *laissez-faire* Anglo-American attitude. Ederveen, et al. (2006) add to this point that in their assertion

²⁰⁴ However, this deviates somewhat from the standard classification of market failures (see Stiglitz, 2000, Rosen, 2002, Musgrave & Musgrave, 1989). Public goods are characterised by non-rivalry and non-excludability; to a certain extent these characteristics are sometimes also found in the by-products that cause externalities (e.g. air pollution contains these characteristics).

²⁰⁵ Alesina, Angeloni and Schuknecht (2001); Eichenberger and Hosp (2001); Smekal (2001); Henke and Perschau (1999)

²⁰⁶ See section 3.3 for a more elaborate discussion on these assumptions.

²⁰⁷ And assuming the number of jurisdictions is large, that jurisdictions are free to select any set of laws they desire, and there are no spillovers.

that countries may have different views on the need for centralisation or decentralisation, resulting from differences in endowment (physical conditions, sectoral structure, infrastructure, etc.), leading to different emphases put on different public goods.²⁰⁸ Finally, Oates (2005: 353) mentions political constraints that prevent central governments to provide more public goods in one jurisdiction over another (so, to redistribute).

Since heterogeneity of preferences is difficult to measure, the EU spending study will examine both studies using the Eurobarometer, as well as empirical research using indirect socio-political or economic measures as a proxy for preferences (e.g. Rhineland vs. Anglo-American preferences on social security, neutrality, differences in economic structure, etc.).

3.2 Subsidiarity

3.2.1 Subsidiarity in the Treaty

The trade-off between centralisation and decentralisation, developed in the fiscal federalism literature, as is described in Section 3.1, has led to the formulation of the functional subsidiarity principle. One has to bear in mind that the term subsidiarity in this economic concept has another meaning than the term subsidiarity as it is used in the Treaty (Article 5 in the Treaty of Amsterdam). The formulation in Article 5 comprises three related principles: the principle of conferral, the principle of subsidiarity and the principle of proportionality:

1. “The Community shall act within the limits of the powers conferred upon it by this Treaty and of the objectives assigned to it therein.”
2. “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.”
3. “Any action by the Community shall not go beyond what is necessary to achieve the objectives of this Treaty.”

These are guiding principles for the Commission to decide whether the Union of the Member States has to act; and these are also formulated in the impact assessment (EC, 2005) and ex ante evaluations guidelines (EC, 2001). From a legal point of view, the subsidiarity principle has only to be applied to policy fields in which the Union and the Member States have shared competences. The functional subsidiarity test can also be applied to other policy fields. In that case, it is not a guiding principle on the assignment of policies based within the Treaty; but rather takes a more distant view in considering the assignment of policies from a solely economic perspective, judging it on efficiency and effectiveness grounds.

²⁰⁸ Ederveen et. al. (2006) give the examples of countries with large agricultural sectors that may attach a higher weighting on agricultural policies than other countries; and of a country with a large transport sector that benefits relatively more from investment in infrastructure.

3.2.2 The subsidiarity test

In an attempt to put the principle in operation Ederveen et. al (2006) construct a so-called ‘functional subsidiarity test’, combining the motives for centralisation (cross-border externalities and economies of scale) and decentralisation (preference matching). The general test consists of the following three steps:²⁰⁹

1. Do cross-border externalities or economies of scale (in policies) justify centralisation?
2. Is credible voluntary cooperation possible?
3. At which level can policies be designed and implemented in a cost-minimising manner, taking heterogeneity in preferences into consideration?

It should be noted that the principle of subsidiarity is neutral about the ideal degree of centralisation. In the debate about subsidiarity, people often confuse the concept of subsidiarity with delegating power to the lowest possible level. However, it would be a mistake to think of subsidiarity and lower-level decision-making as synonyms. The subsidiarity principle involves a careful assessment of the ideal level at which decisions should be taken - which can result in centralisation but also in decentralisation.

When economies of scale or cross-border externalities exist, the first step of the subsidiarity test is passed. Still there is no need for centralisation if Member States would voluntarily cooperate on a given policy issue and this cooperation is credible without any intervention from the Union. If voluntary cooperation is *not* credible, policy intervention of Brussels could be considered. This consideration should be based on the arguments for and against (de)centralisation. However, the question then also arises: what should this policy look like? Should it be a fully-centralised *direct* intervention or should there be a division of policy tasks across government layers - where the central level has, for instance, a coordinating role? It is at this point that not only the arguments for and against centralisation have to be weighed up; but the proportional extent of centralisation should also be determined (proportionality principle).

Credibility of voluntarily cooperation

Even in cases where the presence of scale economies and/or cross-border externalities has been established, this may not necessarily require weighing up these against heterogeneity arguments. Ederveen et al. (2006) and Pelkmans (2005, 2006) argue that there is no need for involvement of the central level if Member States could voluntarily cooperate on a given policy issue *and* this cooperation were credible without any role for the Union. When credibility is low, cooperation will be unsustainable and a central policy will be needed. From game theory it follows that credibility will be particularly low when information is incomplete or asymmetrically distributed, which leads to difficulties in monitoring compliance. Credibility is also low when the incentives to cheat are strong, and the ability or willingness to impose collective sanctions is perceived as minimal. If

²⁰⁹ Pelkmans (2005) includes another step which determines whether the policy falls in the area of shared competences. To make the test more general, i.e. not bound by the Treaty, Ederveen et al. (2006) exclude this step.

voluntary cooperation cannot take place, or if it were not credible, there may be a case for centralisation.

Inman and Rubinfeld (1992) also asserted that public goods with significant cross-border externalities could be provided by voluntary arrangements between states; but that efficient provision should not be expected. Bilateral cooperation between member states is particularly troublesome, as each of the five Coasian assumptions for efficient bargaining seem to be absent in reality – see also Inman and Rubinfeld (1997:78f.).²¹⁰

Breus and Eller (2003) refer to this as “decentral policy failure”, which leads to a necessary condition regarding the centralisation decision: If the uncooperative behaviour of regions leads to worse results than the co-operative behaviour, and this co-operation is not credible without centralisation (because of free-rider effects); then the assignment of the task to the central level would be necessary. This closely resembles the definition of subsidiarity as described above.

In practice, voluntary cooperation could be useful if a problem is addressed which only affects a few countries - such as the pollution of a river like the Danube or the Rhine. Because only a few countries are involved, and monitoring is possible; countries could reach an agreement without the involvement of a higher governmental level.²¹¹

Proportionality

When there is a case for centralisation, it has to be decided how it should be implemented, monitored and enforced. Here, the question of proportionality is relevant: no more than what is necessary to achieve the goals of the actions should be done at the central level. Where possible and efficient, states should play the primary role in policy implementation. Therefore, in principle, coordination and recommendations are preferred over legislation. If binding measures are needed in any case, directives should be considered before EC regulations. In this way, maximum discretion is left to the Member States, while internalising the cross-border externalities.²¹² To get some idea about the possible appropriate policy actions, we refer to section 3.3.2. That section lists four types of governance arrangements in the EU with a different degree of EU intervention and enforcement, distinguished by Sapir et al. (2004).

3.3 Political economy and Public choice

It was mentioned in section 3.1.2 that the *decentralisation theorem* of Oates assumed ‘benevolent and perfect governments’, ‘policy uniformity’ and ‘centralised decision-making’. Ederveen, et al. (2006: 15) describe these underlying assumptions as follows:

²¹⁰ The assumptions underlying the Coasian framework are:

1. there are no resource costs associated with reaching agreements;
2. preferences over bargaining outcomes and the resources of participants are common knowledge;
3. bargaining agents perfectly represent the economic interests of their constituents;
4. all bargaining agreements are enforceable without costs;
5. the parties will agree to a division of the economic surplus from bargaining.

²¹¹ Because the purpose of our study is an assessment of the EU budget, this step will not play a prominent role in our study.

²¹² Ederveen, Gelauff and Pelkmans, p. 19

1. *Benevolent and perfect government*: each level of government maximises the welfare of its constituency. This implies that different layers of government always act benevolently. They do not pursue their own interest or fall victim to lobby groups. Moreover, policy design involves no transaction costs or costs of policy learning.
2. *Policy uniformity*: the central government provides a uniform level of a public good in all jurisdictions. Two motives underlie policy uniformity (Oates, 2005:353). Firstly, information-gathering comes at a cost, and central governments face higher costs associated with learning the preferences of local constituencies compared to local governments. Secondly, a central government faces political constraints to treat one jurisdiction more generously than another.
3. *Centralised decision-making*: each level of government acts as a central planner. This implies that the highest level of government consists of a President or a small Executive Council (the central planner) elected by all citizens of the Union. Inman and Rubinfeld (1997, 2002) refer to this form of federalism as economic or centralised federalism.

These assumptions underlie a *normative* view of assigning policies to various government layers, such as the classic approach in fiscal federalism. It is a very useful way to analyse which policies should be assigned to which government level, and referring to this EU spending study to sketch the contours of the ideal budgetary involvement of the highest governmental level from this normative perspective. However, the (political) reality is different. From the political economy (cf. Persson and Tabellini, 2002; Drazen, 2002) and public choice (cf. Mueller, 1997, 1999) literature we know that governments are not necessarily benevolent, and thus Oates' first assumption is called into question. Often governments are self-interested, there is competition between interest groups, and people are vulnerable to corruption. Also Oates' second and third assumptions are not straightforward in the context of the European Union; we will address this more in section 3.3.2 when discussing a more institutional approach to (de)centralisation. Firstly, we will elaborate on the issue of failing governments (section 3.3.1). Finally, we will touch upon the issue of common pool problems (section 3.3.3).

Before criticising the underlying assumptions of fiscal federalism, however, it has to be stressed that even if reality is different from the normative picture of fiscal federalism; it still remains a useful point of departure. While the normative analytical framework emphasises the economic benefits of assigning policies to the optimal government layer, the analytical framework below indicates the differences between the theory and reality, and directs us to the questions why reality differs from the theory.

3.3.1 Government failure

Breuss and Eller (2003: 6) refer to the “central policy failure - theorem” which argues that imperfect information, rent-seeking politicians, as well as lobbying-activities of interest groups lead to a less than ideal consideration of local preferences - and hence to welfare losses. Rent-seeking governments pursue their own interests in contrast to the public interest; successful lobbying may result in governments being won over by organised interest groups. Self-interested and /or convinced governments, however, may exist at a

local level, as well as at a central level (Ederveen et. al. 2006:21). Hence the “failure” not only refers to central governments. The principal-agent literature has tried to design contracts to overcome the problems of imperfect information and rent-seeking, but these are far from perfect.

Leviathan

The “central policy failure - theorem” argues that decentralisation may constrain rent-seeking by politicians either through stronger opportunities for citizens to control the government (voice) or through the exit option: voting with their feet. Pelkmans (2006) argues that mobility of labour between European countries is not that large; the government voice would be the most important mechanism.

Lobbying

The risk that governments will be won over by interest groups exists both at national level and at EU level. The theoretical literature does not unequivocally support the traditional intuition that local governments are more susceptible to the influences of lobby groups (Lockwood, 2005). Among other reasons, it depends on whether citizens are better informed at the central level or at the local level; as well as on the strength of the lobby at each level. Moreover, it may be more cost-effective to lobby central policy-makers, because that involves fewer players or, as Vaubel (1999) argues, because people are less involved at the central level.

Tabellini and Wyplosz (2004) argue that the impact of decentralisation or centralisation on the efficacy of lobby groups depends on whether the objectives of domestic and foreign interest groups are aligned or not. If interests coincide, centralisation provides the foreign lobby with an additional channel to influence the domestic government. For instance, domestic producers lobbying for low consumer rights or limited environmental protection may find support from foreign producer interest groups. Yet, foreign interests may also oppose domestic interests; in which case, centralisation weakens the efficacy of lobbying activities. Foreign producers would lobby against domestic producers that attempt to create barriers to entry on domestic markets. All in all, the impact of lobbying on the trade-off between centralisation and decentralisation is indeterminate. It depends on the specific conditions in a given policy area as to whether a central or a local government faces a higher risk of being influenced by the lobbyists.²¹³

Corruption

Arguments can also be found in the political-economic literature that do not support the overall positive view of decentralised government systems. They are relying on corruption at the local level, as well as on the quality of governments. Following Prud’homme (1994), local elites are closer to people and thus are more susceptible to personalism. They get improved access to public resources via decentralisation, which increases opportunities for corruption (Tanzi, 1995). Wildasin (1995) is more careful regarding this proposition: “There may be a trade-off between local corruption on a small scale and central corruption on a large scale. It seems impossible to say *a priori* which would dominate the other” (Wildasin, 1995). Recent empirical attempts at settling this question have so far provided inconsistent results: Treisman (2000) does not find any

²¹³ Ederveen, Gelauff and Pelkmans, p. 24

significant relationship between fiscal decentralisation and corruption (see Dabla-Norris and Wade, 2002); while in the cross-country regressions of Fisman and Gatti (2000), fiscal decentralisation appears to have a negative and significant effect on corruption.²¹⁴

Accountability

These arguments in favour of decentralisation (except for lobbying for which the outcome is indeterminate) add accountability to the decentralisation side of the trade-off.

Decentralised governments are more accountable to their constituents, because they are more responsive to ‘voice’; and because they are constrained by policy competition.

Seabright’s (1996) definition of accountability is “the probability that the welfare of a given jurisdiction determines the election of the government”. As such, the augmentation of democracy through a federal system is a further argument in favour of decentralisation. Decentralisation can promote democratic and participatory forms of government more effectively; seeking to improve the responsiveness and accountability of politicians and bureaucrats; and ensuring closer correspondence of the basket of publicly provided goods and services with the preferences of beneficiaries and taxpayers in the various sub-central jurisdictions. Hence, with Leviathan governments ‘decentralisation may be preferable even in cases of perfect homogeneity of preferences across local jurisdictions’ (Oates, 2005: 358). Bird et. al (2003: 58) argue that “carried out efficiently, fiscal federalism or fiscal decentralisation can provide an alternative to the market as a way of promoting the coincidence between the three circles of budgetary policy: those who decide, those who benefit, and those who pay.”

3.3.2 Institutional approach

Decision-making in legislature

Oates’ assumption on a single decision-maker is also fairly restrictive, and does not meet the peculiarities of the EU. If, in addition, the assumption of a uniform policy is dropped, centralised policies can offer an array of possibilities. According to Inman and Rubinfeld (2002) the model of decision-making in a legislature, which they characterise as democratic or majority-rule federalism, closely resembles European governance nowadays.²¹⁵ In practice, of course, EU governance is more complex than the representation in a formal model. Sapir et al. (2004) distinguish four types of governance arrangements in the European Union.²¹⁶

1. Full delegation of policies to the Union, such as trade policy (Internal Market, WTO) or Competition Policy.
2. Binding commitment among Member States. In this case, Member States have agreed on EU surveillance and EU sanctions for policies that remain their ultimate responsibility. An example is a state aid oversight by the Commission.
3. Coordination of policies that are decided and implemented by the Member States. Coordination covers:

²¹⁴ Breuss and Markus Eller, 2003, p.6

²¹⁵ Inman and Rubinfeld (2002) distinguish three alternatives. Economic or centralised federalism concerns the single decision-maker. In cooperative or decentralised federalism, representatives of the Member States’ governments unanimously decide on central government (Union) policies. In democratic or majority-rule federalism, representatives of the Member States decide on central policies by (simple) majority rule.

²¹⁶ These types of governance show that in the EU, ‘centralisation’ varies from strong (full delegation) to weak (the OMC).

- explicit guidelines subject to multilateral surveillance (Broad Economic Policy Guidelines);
 - collective rules (Single Market regulations);
 - high-level dialogue (Eurogroup);
 - mutual information and assessment (Open Method of Coordination - OMC).
4. Autonomy of Member States to decide on and implement policies, for instance in the field of direct taxation.

Although formal models do not capture all aspects of EU governance, it is useful to review two main consequences of decision-making in a legislature derived from such models. We touch upon an attitude of deference in the legislature towards each others' proposals below.

Decision-making in a legislature requires negotiations between national representatives about the kind of policies to be addressed at central level. In single-issue bargaining, the decision to centralise a policy depends on the bargaining power of countries; and on the differences in weights that individual countries attach to that policy and to centralisation. In practice, negotiations take place in a setting of multiple goals and repeated games. In the European Council, national governments continuously negotiate on a broad range of policies. In those cases, 'allowing' centralisation on one specific policy may act as a kind of side-payment to obtain support from countries with low weights on centralisation in relation to other policies. In particular, if one country attaches a large weight to a specific policy, the other countries may allow centralisation on that specific policy. On the one hand, this may make finding a solution easier when a minority strongly opposes a certain policy proposal. Yet on the other hand, this process may 'get out of hand'. If all countries try to lever their national policies by lifting them to a European level, the process of deference may result in a centralisation of policies that would not pass a subsidiarity test.

The risk of deference in particular applies to democratic federalism - the current system of decision-making in the EU. Majority-rule decision-making is inherently unstable. It may cycle from one majority to another without reaching an equilibrium. To cope with instability, Member States may revert to the "I'll-scratch-your-back-if-you-scratch-mine" legislative norm of deference in making decisions. 'Under this norm, locally beneficial but centrally inefficient government policies will be approved' (Inman and Rubinfeld (2002:7) .

Another consequence of deference may be that countries formulate rather broad and vague goals or policies, so as not to interfere with each other's domestic policies. That may either give much autonomy to central institutions to define the policy actions; or, as is more probable, may reduce the effectiveness of common policies because what is really meant it is unclear. In particular, when countries put each other to the test in a process of peer reviews, vague phrases may be a way out. Guidelines for individual Member States frequently contain phrases such as 'promote more adaptable and innovative work organisation' or phrases such as 'where appropriate'.

According to Pisani-Ferry and Sapir (2006), the mid-term revitalisation of the Lisbon Strategy did not succeed in solving these problems. Resistance by the large Member States against naming and shaming had country-specific guidelines replaced by 'no less

than' 24 general guidelines. Each of these guidelines is being applied to all Member States - without distinguishing whether some may be more relevant for a certain country than for others.

Dynamics in union formation (constitutional economics)

The exit option not only applies to citizens, but may also apply to nation states; even more so, as they have the option to be self-reliant in the production of (many) public goods. Alesina, Angeloni and Schuknecht (2001) describe balancing forces in the formation of unions. They state that “if the union level centralises too many prerogatives, several countries may not join because they are too distant from the “median” union member, assuming that the chosen policy is close to the median preference. On the other, hand if the union centralises too little it does not fully benefit from economy of scales and from externalities, which motivate the creation of a union in the first place. [...]given distribution of preferences by potential union members and over a diverse range of policies, in equilibrium one should observe either small unions that centralise many prerogatives, or large unions in which few prerogatives are delegated above national governments. This trade-off is particularly important when the union is considering enlargement” (Alesina et. al., 2001: 3). This argument may lead to several co-existing unions with varying degrees of centralisation on various policy areas.

The issue is also addressed by Schneider (2003) who, along with Buchanan (1995), suggests that when moving towards a European Federation, in order to guarantee that the central power does not take over either fiscal or other items from the EU Member States, the exit/secession option must be embedded in European treaties (or the Constitution). Schneider (2003:13) states that: “with an operative secession threat on the part of the EU Member States, the European federal government could be held roughly to its assigned constitutional limits, while the EU Member States could be left to compete among themselves in their capacities to meet the demand of citizens for collectively provided goods and services.”²¹⁷ Schneider implicitly assumes here that the prerogatives of the union are not *strictly* defined *ex ante*; and that the central government has a tendency (and possible ability) to extend its policy areas. Alesina et. al. (2001:3) argue that in such case, the exit option may not be sufficient, as it may lead to ‘too small’ unions; strictly *ex ante* assigned policy areas could lead to a more efficient union size: “If the prerogatives of the union are not defined *ex ante* by constitutional design, when the union is formed, the members close to the “median” have an incentive to increase centralisation and harmonisation. Anticipating this tendency, potential members will stay out to begin with, leading to unions that are “too small”. A union where prerogatives are fixed *ex ante* leads to superior outcomes.”

The Union and its Member States could strategically use the assignment of policies to hold countries on board, to favour entry of new Member States, or to block the possible

²¹⁷ The (threat of) secession should be seen here as an ultimate ‘weapon’ for every EU member country in order to avoid a development that is not wanted by EU Member States and their citizens. In principle, it gives the single countries a power over (for them) critical issues; and if it is used, one might end up in a prisoner’s dilemma situation. But as the execution of the secession for a single EU country is not so easy (for instance, a qualified majority of voters in that country is necessary), it is unlikely that this instrument will be used frequently only for tactical reasons. In terms of game theory, the threat is unlikely to be credible.

entry of some Member States. In general, it is not clear whether this dynamic in union formation leans towards the centralisation or decentralisation of policies.

Limits to policy competition

Policy competition has its limits. National governments intervene in the economy to counter market failures. Yet according to the *selection principle* (Sinn, 2003), competition between governments through the back door may bring back the market failures national policies were meant to resolve. The point Sinn (ibid.) makes is that while governments engage in policy areas because of the presence of market failure; the market failure will not necessarily cease to exist in the competition between governments ('systems'). For example, as governments engage in the provision of social security programmes because the market fails to deliver these due to the disruptive working of adverse selection; the problem of adverse selection remains present, as recipients of welfare systems will tend to migrate to 'generous' systems; and contributors will tend to migrate to less generous systems. Another example would be the recently observed tendency by European governments to promote national champions (e.g. in the electricity and banking sectors) - which obviously conflicts with the principles of Competition Law. National Competition Law aims to control the market failure of 'market power' within the national borders. However, the promotion of national champions by national governments is a clear attempt to increase the market power of the envisaged national champion in the European market. The incentives for these actions are such that national governments understand that some of the surplus generated by this market power (in other European countries) will spill over to their own treasury and/or spill over to the national labour market. As such, the problem of market power does not disappear, but rather remains in the presence of competing governments. Similarly, in the field of taxation, tax competition combined with a high degree of inter-jurisdictional integration and mobility leads to an inefficient low taxation of capital; the less than ideal allocation of resources is the consequence. The limits to policy competition could be a reason to centralise policies.

3.3.3 Common pool problems

The common pool problem (or raiding the commons) (Inman and Rubinfeld, 2002; Oates, 2005) reads as follows: states (lower-level governments) have an incentive to draw as much as possible on the common budget for projects that provide mainly local benefits. In that way, other states co-finance these projects; whereas the benefits mainly accrue to local constituents. EU Agricultural Policy, Cohesion Policy and structural funds are examples. When considering independent taxation capabilities at EU level, common pool problems have to be taken into account, as well (Rattsø, 2003).

Project selection

The common pool problem also creates a bias in the selection of projects funded by the legislature (Lockwood, 2002, 2005). When there is cost-sharing (for instance through the current GDP-proportional contributions to the EU budget) the legislature has an incentive to minimise the costs of projects; not to maximise their net welfare gains when these are unevenly distributed among Member States. The reason is that all Member States benefit from cost reductions; whereas only one or a few Member States reap the economic

surplus of the projects. To some extent, this effect may offset the deference problem that creates a bias towards projects beneficial to individual Member States.

Over-provision

Finally, cost-sharing of local public goods may induce over-provision of public goods in a centralised system (Besley and Coate, 2003). Cost-sharing creates an incentive for local voters to strategically delegate by electing representatives with high demand for public spending. If one region elects a delegate to the legislature who places high value on the public good, this delegate will be more aggressive in demanding a higher level of spending on public goods for that region. This benefits citizens from that region, because parts of the costs are borne by the other regions. But if all regions act in this way, the total amount of public goods will be higher than their efficient levels. In contrast to the previous project selection effect, strategic delegation may exacerbate the deference problem.

However, related to decentralisation, there is a danger that raiding the commons leads to over expenditure, as well; particularly when local own resources are limited, and local finances have to rely on transfers from the central level (Weingast, 1995). In such cases, there is a danger of free-riding leading to public programmes beyond efficient levels (Goodspeed, 2002).²¹⁸

3.4 Additional arguments

3.4.1 Second-best arguments

Second-best arguments can tip the balance between centralisation and decentralisation: (de-)centralisation can be welfare-improving, although it does not occur in the absence of distortions. For instance, the effect of (de-)centralisation on the competitive process between enterprises may form an argument for (de-)centralisation - even in a case where a functional subsidiarity test would say otherwise. Persson et al. (1996) emphasise this point and give the example of education. Because economies of scale and cross-border externalities of education are not very high (see, e.g. Thissen and Ederveen, 2006), educational policy should be decentralised according to the functional subsidiarity test in section 2.4. However, Persson et al. (1996) state: "Many observers take the view that national university systems are poorly organised and inefficient (particularly in comparison with the US), because sectoral and regional interests have led to inefficient regulation and to a poor allocation of government budgets". In that case, EU policies that promote the mobility of students and researchers may increase competition between European universities; and may enhance efficiency and quality of education and research. Hence, centralisation may be warranted to reduce government failures at national level. The opposite case is also possible: decentralisation may be advisable to counter government failure at EU level (see section 3.2.1).²¹⁹

²¹⁸ Another issue relates to Strategic Budgeting. This issue will be investigated further.

²¹⁹ Ederveen, Gelauff and Pelkmans, p. 26

3.4.2 Complementary policies

Furthermore, while assessing the distribution of vertical responsibilities across government layers in relation to various policy areas; one has to take into account possible complementarities between policy areas. Complementarities imply that a move towards centralisation or decentralisation in one dimension increases the benefit of moving in the same direction in other dimensions. For instance, EMU initiated the discussion about the Stability and Growth Pact, since centralising monetary policy affected the costs and benefits of fiscal centralisation (Persson et al., 1996). EMU also provides a rationale for coordinating reforms among euro zone countries (Pisani- Ferry, 2005). The reason is that in a monetary union, a country that pursues reforms exerts an effect on its EMU partners, since the European Central Bank will adjust the interest rate in response. Raabe's (2006) recent work indicates that a common monetary policy (with a single interest rate) may require regional (redistributive / structural) development policies to which sectoral business policies (industry development) may be complementary. Another example concerns liberalisation. Liberalisation brings policy areas within the confines of the Internal Market that previously were delivered by national public providers. Because of complementarities, the decision to centralise policy in a specific field may have consequences that reach further than was initially recognised. Once a first step has been taken, other policy domains may follow suit. Therefore, a full cost-benefit analysis of centralisation would have to include both the initial and complementary policy fields.²²⁰

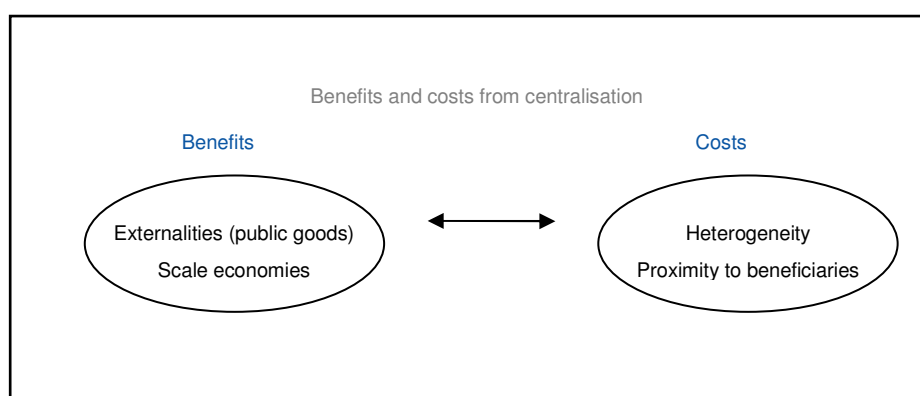
²²⁰ Ederveen, Gelauff and Pelkmans, p. 26

4 Assessment of the optimal government layer

In section 2 we asked *What are the reasons for government interventions* (market failures (allocation), redistribution, and stabilisation) and *What instruments are available?* These questions form the background of the assessment *Who should do what?* (EU or national governments). Here we will focus on those policy areas for which substantial government expenditures are required. Hence, policy areas that can be addressed entirely by regulation (e.g. Competition Policy, Internal Market) will not be analysed further. In the first instance, we focus on these policies that belong to the competences of the EU. However, we will also broaden the analysis by including policies which are not part of the competences of the Union, but are centralised in some countries with federal structures. This will enable us to evaluate the economic arguments in favour of centralising or decentralising these policies.

The answer to the main question typically follows from a social cost-benefit analysis of which a so-called *subsidiarity test* forms an integral and essential part. The (functional) subsidiarity test weighs up benefits and costs from centralisation in terms of scale economies and externalities vs. heterogeneity and proximity to beneficiary (see Figure 4.1). In addition, the proportionality of a proposed central policy should be addressed.

Figure 4.1 Functional subsidiarity test



In Table 4.1, below, we have tried to incorporate the additional arguments from section 3 into an assessment procedure which resembles a sort of *extended subsidiarity test*. The table should be read as follows: in the second left column we have identified the sequence to be taken into the analysis; the middle columns categorise the reasons for or against centralisation. The last column gives some explanatory comments. Additional explanations can be found in the footnotes.

Table 4.1 Assessment procedure

	Sequence	Reasons for centralisation: <i>the need to act in common</i>	Reasons for decentralisation	Remarks
WHO SHOULD DO WHAT?	1a	Economies of scale Externalities		Normative assessment along the lines of fiscal federalism
	1b		Heterogeneity of preferences	
	2a	Limits to system competition ²²¹ Second-best Complementarity between policies Corruption Lobbying ²²²		Positive assessment of additional arguments from Political Economics and Public Choice
	2b		Self-interest and accountability Common pool Lobbying ²²³	
	3	Credibility of co-operation		
	4	Proportionality		

The above table represents how other (political-economic) arguments can be applied along with the normative criteria of fiscal federalism. Arguments need to be classified as being for or against centralisation; and subsequently these arguments need to be weighed up. From the previous section it became clear that incorporating other arguments is also necessary, since reality differs in too many cases from the ideal world. Nevertheless, while assessing for subsidiarity, the normative line of reasoning should prevail since it provides the most robust benchmark against which to evaluate. For this reason, the procedure as presented in the table above first applies the normative subsidiarity test (as visualised in Figure 4.1), followed by an assessment of the additional political-economic arguments.

²²¹ Thought should be given to whether the rules of systems competition can be improved.

²²² Tabellini and Wyplosz (2004): Are objectives of domestic and foreign interest groups aligned? If no: centralisation may be optimal.

²²³ Tabellini and Wyplosz (2004): Are objectives of domestic and foreign interest groups aligned? If yes: decentralisation may be optimal.

The issue of credibility of cooperation in the table can be seen as a cut-off point: when the need to act in common has been established, centralisation is not required when voluntary cooperation among Member States is credible. Finally, proportionality can be seen as the integration of the subsidiarity test into the social cost-benefit analysis that examines *who* should do *what*.

5 Conclusion

The methodology and assessment procedure developed represents a potential extended subsidiarity test. The value-added of the test is that it is covering the wide range of schools of thought, from fiscal federalism, public choice, institutional economics and other schools of thought. Furthermore, a major advantage is that new (future) insights can easily be incorporated into the assessment approach.

Appendix II: International Comparative Study

1 Introduction

This International Comparative Study is a background study to the main analysis (“A Study on EU Spending”). The main study’s focus is on the question of optimal assignment of public tasks to specific levels of government (local, regional, central and supra-national). The background study provides information on relevant aspects of this question by taking an international comparative as well as a historical perspective. The background study consists of two parts. The first part relates to long-term trends of central and sub-central government expenditures and revenues in a world-wide perspective. In the second part, four non-EU federal countries – Australia, Canada, Switzerland and the United States – are considered in greater detail. The main questions raised are, first, how public responsibilities are allocated across levels of government and, second, whether there have been changes of this allocation and why. Finally, some conclusions are drawn.

2 Central and sub-central government revenues and expenditures in a long-term perspective

Decentralisation of government functions – including expenditures and revenues – is a worldwide phenomenon since some decades. Economic policy reforms in developing as well as in transition countries often include shifts to more decentralised public functions. Such policy reform directions are supported by international institutions like the World Bank, regarding decentralisation as a way to improve governance, economic growth, equality and democracy. In industrialised countries, decentralisation tendencies of public functions also can be observed, but they are less widespread and dramatic shifts to more decentralisation are the exception. This may be easily explained by the already higher degree of decentralisation compared to that of low-income countries.

Characterising the degree of centralisation of the provision of public goods and services in a country is a complex task due to several reasons. What one needs to assess is which level of government (central, regional, local) has the legal and economic power to provide certain public goods/services to the citizens of its boundary. However, this power may be mitigated or enhanced by (limits to) the right of the government layer in question to tax its citizens, by (various forms and amounts of) financial allocations from the centre, and by centrally determined taxes and duties of the sub-central level to provide certain good/services. Moreover, the degree of centralisation is different for different public goods/services and also may change over time.

International comparisons of the degree of (de)centralisation of the provision of public goods and services are specifically difficult because the range of goods and services considered to be “public” as well as the definition and existence of sub-central levels is different across countries and even over time (in a longer time perspective). Such a comparison must therefore be based on a very rough and (over-)simplifying measure of “decentralisation”, namely that which is provided by international organisations, like the IMF (Government Finance Statistics Yearbook) and the OECD (Revenue Statistics).

A word of caution is in order. It should be noted that the sub-central share in total (“general”) government expenditures and revenues as well as the change of the share over time is influenced by a different and changing role of shared taxes, grants, social security contributions and of the allocation of public duties to government levels. Moreover, differences in constitutional prescriptions and institutional detail are so large and relevant that it is even “impossible to formulate a single rule which can be used to allocate taxes and their revenues to the various government layers” (OECD, 1999, p. 11), meaning that also the established reporting system which has to use such a “single rule” leads to measures which are difficult to interpret. Thus, the autonomy of sub-central government layers to provide public goods and services – depending finally on the power to tax – is

not virtually grasped by the sub-central share in total government expenditures or revenues. Finally, changes in the share of (sub-) central revenues may have many causes (i.e., changes of tax rates, different dynamics of tax bases) and need not be the result of a deliberate (de-)centralisation policy.

In the following we first consider the measures “sub-central government expenditures (revenues) in percent of total government expenditures (revenues)” for the period 1970 to 2001 averaged over the period 1970-1975 and 1996-2001. We present various measures of decentralisation which reflect the share of local expenditures and revenues in total expenditures and revenues. We also discuss measures which more firmly address the problem outlined above, namely the degree of autonomy over tax revenues.²²⁴ As to expenditures, we consider total expenditure of sub-central government as % of consolidated general government expenditure with and without social security. The extent to which revenues are decentralised is measured by own revenue of sub-central government, excluding received transfers, as % of consolidated general government revenues. Alternative measures of revenue decentralisation are presented afterwards.

²²⁴ The analysis builds on Stagerescu (2006). See also Bird and Tarasov (2004) on this issue.

Table 1 Degree of fiscal decentralisation (excl. social security), OECD countries, 1970-2001

Country	Direct expenditure (1)		Total expenditure (2)		Own revenue (3)	
	70-75	96-01	70-75	96-01	70-75	96-01
AUS	49.3	48.3	27.4	31.6	24.0	32.9
AUT	45.8	47.5	34.9	33.8	35.1	33.4
BEL	21.0	39.5	10.0	33.8	10.2	35.4
CAN	58.5	63.7	49.6	56.5	49.3	55.8
DEN	61.8	59.9	30.7	36.1	30.3	33.8
FIN	42.6	45.2	30.3	34.7	30.3	34.7
FRA	29.0	32.2	18.0	21.5	13.5	22.3
GER	65.9	64.6	59.3	60.2	54.5	54.9
GRE	5.0	-	4.8	-	4.9	-
ICL	21.8	33.7	21.9	30.1	19.7	25.6
IRL	34.5	28.4	18.1	7.4	15.4	7.8
ITA	26.2	36.3	11.7	17.2	9.1	16.1
JAP	65.5	62.8	28.4	27.6	34.6	38.3
LUX	26.7	27.6	14.3	17.5	11.7	13.3
NED	53.2	45.9	11.6	13.7	5.9	16.2
NEZ	12.5	11.1	10.4	10.0	11.3	10.1
NOR	48.1	46.1	42.2	32.7	40.9	27.2
POR	9.3	13.7	4.7	9.0	6.0	8.7
SPA	15.6	63.4	8.7	30.8	8.2	26.6
SWE	48.0	42.0	35.8	34.8	35.9	34.4
SWI	74.4	78.2	63.3	62.2	62.3	63.0
UK	36.9	31.6	22.4	19.3	17.9	18.6
USA	53.1	60.2	42.8	49.9	46.8	51.5
Median:						
OECD	44.2	45.6	24.9	31.2	21.9	30.0
EU15	35.7	40.8	18.1	26.2	14.5	24.4

Source: Stegarescu (2006)

Note: Total expenditure and lending minus repayments (total revenue and grants) of sub-central government in % of consolidated general government expenditure (revenue), without EU payments; for JAP only current expenditure (revenue).

Six-year averages. (1) expenditure excluding transfers to other levels of government; (2) expenditure including transfers to other levels of government net of received transfer; (3) revenue excluding received transfers from other levels of government.

At first, we look at the expenditures and report on countries with – more or less remarkable – longer-term changes of sub-central spending. The most dramatic decentralisation developments in terms of expenditures (Table 1) occurred in Spain and in Belgium. Over 20 years, Spain followed a continuous course of decentralisation, based on a move from a unitary to a federal system, and increased sub-central public spending from 15.6% to around 63.4%. After the Franco regime fiscal authority has been significantly decentralised. A similar pattern can be observed in Belgium which due to cultural and economic reasons decided to decentralise fiscal authority both on the expenditure and revenue side. The process involved the creation of communities (according to linguistic criteria) and regions starting in 1980. The official recognition as a

federal state was due to the 1993 constitutional revision which named Belgium a federal state.

The development in Canada is less remarkable than that of Spain and Belgium. In the case of Canada, a slight trend towards decentralisation is clearly to be recognised. Canada, as a federalist country with an already high level of sub-central spending, increased the sub-central share by roughly five percentage-points depending on the definition of expenditures. A similar pattern can be observed in the US. In Germany, sub-central public spending stayed roughly the same as in other countries with only moderate decentralisation trends as in Finland and France.

In some countries, even *centralisation* tendencies can be observed. In the Netherlands direct expenditures as a share of consolidated general expenditure dropped (column 1 of Table 1). The share of total expenditure nevertheless rose - which indicates increasing reliance of sub-central government on federal finances. A more remarkable drop in expenditure shares occurred in the UK and Ireland. In both countries the share of expenditure (even including transfers received from other levels of government) dropped significantly.

Sub-central autonomy for expenditures rests finally on the power to tax. Thus, taxing power of sub-central government layers is virtually meant when one speaks about fiscal autonomy and centrality. This topic has been addressed by an OECD study about “Taxing Powers of State and Local Government” (1999). The study considers sub-central tax revenues – as measured according to the established reporting rules –, develops a taxonomy for degrees of “tax autonomy”, characterises the different types of sub-central tax revenues along the lines of this taxonomy and, finally, establishes a differentiated overall measure of tax autonomy of sub-central government layers. The analysis provides information only for a single year (1995) and, thus, does not allow to assess the development of tax autonomy over time. Moreover, the study does not report on Australia and the U.S.

The study measures the degree of autonomy of a sub-central government layer (SCG) with regard to a specific tax by the following characteristics (in the order of decreasing tax autonomy of the SCG level):

- a. SCG sets tax rate and tax base
- b. SCG sets tax rate only
- c. SCG sets tax base only
- d. There exists a tax sharing arrangement
 - d1. SCG determines revenue-split
 - d2. Revenue-split can only be changed with consent of SCG
 - d3. Revenue-split is fixed in legislation and may unilaterally changed by central government
 - d4. Revenue-split determined by central government as part of the annual budget process
- e. Central government sets rate and base of SCG tax

In cases of a. – d2. sub-central governments have a significant degree of tax autonomy, while it is more limited or nil in cases of d3. – e. Table 2 presents different measures of the degree of decentralised tax autonomy and revenue decentralisation. The first three columns show tax revenues a.-c., a.-d1. and a.-e. as a % of consolidated general government tax revenue. The last two columns give revenues a.-c. and a.-e. as a % of consolidated general government revenue, including non-tax and capital revenues both at the SCG level and aggregate level.²²⁵

We consider first the countries with a relatively high level of sub-central tax autonomy as measured by TDec2 and TDec3 – see column 2 and 3 of Table 2. Countries with approximately 50% of sub-central taxes as characterised by categories a.-d1. and a.-e. are Canada, Germany, and Switzerland. These countries are also typically listed as highly decentralised countries. However, when taking the measure TDec1 into account which only measures the share of sub-central taxes, where the local government can set at least the tax rate or the tax base, Germany has only a share of 7.3%, indicating that a significant amount of tax revenues come from revenue-sharing arrangements with upper level of governments. Countries which have a similarly low degree of policy discretion over own tax revenues (independently of whether the latter are high or low) are Austria, Belgium (albeit to a lesser extent) and Portugal. A high degree of tax policy discretion, but a small overall level of decentralised tax revenues can be observed in the Netherlands and the UK. Summing up, the only countries (considered in Table 1) which have both a high degree of tax autonomy and a high share of own tax revenues are Canada and Switzerland – two out of four countries to which we turn in the next section.

²²⁵ The formula for computing RDec3 (last column of Table 2) is the same as the formula underlying the last column of Table 1. The numbers in both columns differ since OECD data is used in the latter while IMF data is used in the former.

Table 2 Summary of different indicators of fiscal decentralisation, OECD countries: 1996-2001

Country	TDec1 (3)	TDec2 (4)	TDec3 (5)	RDec1 (6)	RDec3 (7)
AUS	20.9	20.9	20.9	31.6	31.6
AUT	3.5	28.7	28.7	14.1	34.7
BEL	24.2	44.2	44.5	24.7	44.0
CAN	52.4	52.4	52.4	56.7	56.7
DEN	31.8	31.8	33.6	32.3	33.8
FIN	25.3	25.3	30.4	31.3	35.1
FRA	19.2	19.2	19.4	23.1	23.2
GER	7.3	49.6	49.6	20.8	50.1
GRE	0.2	0.2	2.0	-	-
ICL	24.7	24.7	24.7	25.4	25.4
IRL	2.3	2.3	3.9	9.4	10.3
ITA	8.6	8.6	13.1	9.9	15.0
JAP	36.7	36.7	40.5	-	-
LUX	8.3	8.3	8.3	13.3	13.3
NED	5.1	5.1	5.1	14.7	14.7
NEZ	5.7	5.7	5.8	9.2	9.3
NOR	22.6	22.6	23.0	24.9	25.2
POR	3.1	3.1	8.4	6.3	10.5
SPA	20.8	23.2	25.2	20.7	25.8
SWE	43.7	43.7	43.7	40.0	40.0
SWI	53.9	57.8	57.8	60.7	63.6
UK	4.9	4.9	4.9	9.2	9.2
USA	36.3	36.3	36.3	46.3	46.3

Source: Stegarescu (2006)

Note: (3)-(5) Tax revenue of sub-central government in % of consolidated general government tax revenue, without social security and EU payments: (3) autonomous own taxes, (4) autonomous own and shared taxes, (5) total tax revenue of sub-central governments. (6)-(7) Own revenue of sub-central government, excluding received transfers from other levels of government, in % of consolidated general government revenue, without social security and EU payments: (6) autonomous own taxes and own non-tax and capital revenue, (7) total own tax, non-tax and capital revenue of sub-central government.

Six-year averages

3 Four industrialised federal countries in comparison

The focus of this chapter is on expenditure responsibilities of federal and sub-federal government layers and on changes of such responsibilities in four federal countries: Australia, Canada, Switzerland and the U.S. It seemed to be useful to supplement the assessment of public responsibilities across levels of government by some neatly related problems: taxing power and vertical fiscal imbalance, fiscal equalisation mechanisms, autonomy. However, not considered are budget balance requirements.

3.1 Australia

The *Commonwealth of Australia* has been created by the union of formerly six British colonies in 1901. Two independent Territories joined the Commonwealth in 1978 and 1989 respectively. The Constitution is of 1900.

Division of responsibilities

The Australian federal system consists of three governmental layers: the Commonwealth government at the federal level, six State governments plus two Territory governments at the intermediate level, and local authorities. The responsibilities and legal powers of the federal level are described in the Constitution in detail. The list of areas of law making power of the federal Parliament is long and consists of 39 topics (s. 51 of the Constitution). By contrast, the responsibilities and powers of the States are not positively, but only negatively described. Thus, there exists no systematic and complete designation of public tasks, let alone their allocation to government levels.

The resulting development since 1900 was characterised by a continuous erosion of sub-central spending and taxing powers. While tax revenues before the foundation of the federation accrued, of course, completely to the States, 100 years later the States' share amounts to only less than 20% of total Australian taxes (Warren, 2006). In the immediate post-World War II years the percentage was even lower (12%), increased then to 23% and declined then again to the present value.

The extensive and detailed description of federal powers and the vague description of States' powers in the Constitution seems to have abetted this development. "The increase in Commonwealth power has occurred without formal amendment of the Constitution ... as originally required. The High Court has played a key role in centralising power" (Warren, 2006, p. 16).

At present, the responsibilities are in principle divided along the following lines. The federal level is responsible for defence, foreign trade, immigration, social security and employment, while the States are responsible for education, health and social services, transport as well as for public utilities like electricity and water. However, this scheme seems to apply only in principle. Warren (p. 34) observes that the expenditures of the federal and the States level for health and education are of similar size, i.e. both around half of total expenditures. This is in striking contrast to some other federal countries, where the expenditures for health and education are more clearly allocated, either to the federal or to the States level. In Belgium and Germany, health expenditures are borne by the federal level to practically 100%, while it is just the other way round in Canada and Switzerland. Expenditures for education fall mainly on the States level in Belgium, Canada, Germany and Switzerland, amounting there to between 84 and 96% of total expenditures for education.

Past reforms, future reform needs

Past reforms of fiscal federalism in Australia do not seem to have been related to an explicit change in the allocation of responsibilities on governmental layers. Warren even states that “National and State governments in Australia have not had a substantial debate about the assignment of functions and responsibilities between different levels of government prior to federation in 1901” (p. 30). What was at issue and has been reformed is the fiscal equalisation mechanism as well as the system of State taxes. In 1999, there was an Intergovernmental Agreement on the Reform of Commonwealth-State Financial Relations (IGA). Its main provisions were to replace (partly) formerly tied by untied grants, and to increase generally the amount of federal funding for the States which allowed them to abolish or to reduce various State taxes like, e.g., financial institutions duty, stamp duty on quoted marketable securities or bed tax.

However, these reforms do not seem to have been able to halt or reverse the long term erosion of States’ (fiscal) autonomy. With view to the 1999 reforms, Warren concludes: “The changes that have occurred have not been structural or the result of a comprehensive and systematic review of Australia’s intergovernmental fiscal arrangements” (p. 29).

A reduction of federal spending responsibilities occurred in 1989 when tuition fees for University students have been introduced. However, this change was from public to private financing not from federal to sub-federal (Freeman, 2006).

Taxing powers and vertical fiscal imbalance

The States’ taxing powers are rather limited. Revenues from own taxes amount to around 20% of total government tax revenues, while States are responsible for about 45% of total public expenditures. Own revenues of the States come primarily from property taxes, to a lesser degree from taxes on specific goods and services and on the use of goods. The bulk of States revenues, however, stems from taxes whose bases and rates are defined by the federal level and which are shared between federal level and States: goods and services tax and payroll tax. The resulting vertical fiscal imbalance is rather high in international comparisons. The imbalance is financed by transfers from the federal level which amount to 50% of total States expenditures (Canada: 18%, Germany: 17%, Switzerland 35%; Austria: 58%).

Fiscal equalisation mechanism

In Australia, contrary to, e.g., the U.S., there is an explicit fiscal equalisation mechanism at work. The aim of the mechanism is to enable each State to provide a comparable level of typical public goods and services to the citizens without taking recourse to untypically high (or low) taxation. Thus, different abilities to tax or different cost structures in providing public goods are to be levelled off. The equalisation mechanism is a completely vertical one, but with horizontal effects. The (federal) revenues from the goods and services tax form a “fixed equalisation funds pool ... so that equalisation becomes a zero-sum game” (Warren, p. 82). There is a special commission, the Commonwealth Grants Commission, established in 1933, which determines each year the actual values for the weighting an average citizen in each State receives. On the basis of the weightings, the revenues from the goods and services tax are distributed to the States. These transfers are unconditional.

Autonomy

Limited own powers of the State level to tax and a resulting high vertical fiscal imbalance is, as such, an indication for a low degree of sub-national fiscal autonomy. The unconditional transfers from the federal level amount to about 50% of all vertical transfers, while the other half consists of conditional transfers. Within the conditional transfers there is different room for manoeuvre for the States. Federal allocations for health, e.g., must meet (only) the condition that the money is spent in that sector. But there is a range of specific purpose transfers which bind the State to, e.g., specific projects or to labour vs. non-labour spending. Such restrictions are often effected by cost sharing (matching) arrangements. The degree of fiscal autonomy of the State level seems to be additionally restricted by extensive reporting requirements and performance penalties (Warren, p. 108).

3.2 Canada

Canada has been created as a federation by the British North America Act of 1867. The government structure consists of a federal government, 10 provincial governments and 3 territorial governments.

Division of responsibilities

The exclusive powers of the federal parliament and those of the Provinces are laid down in the Constitution. The constitution assigns e.g. national defence, currency and coinage, banking regulation, immigration and regulation of trade and commerce to the federal level.²²⁶ Important policy areas such as health, education, and social assistance are exclusively assigned to the Provinces.²²⁷ The policy assignment follows the prerogative of

²²⁶ In total 30 fields of activity as sole responsibility of the federal level – see Section 91 of the constitution.

²²⁷ The list of the exclusive powers of Provinces contains 17 fields of activity which are partly explained in great detail. The most important subjects shall be mentioned here (s. 92): direct taxation for provincial purposes; borrowing for provincial purposes; management and sale of provincial property (lands, timber, wood); prisons in and for the Province; hospitals in and for the Province; municipal institutions; issuing licences for shops, saloons, auctions; local works, such as for transport and communication, except if relations between Provinces or between a Province and a foreign country is concerned; property and civil rights in a Province; punishment, penalty or imprisonment in relation to provincial matters; all matters of a merely local nature in a Province.

avoiding concurrency in legislative and regulatory powers across different levels of government. Albeit the clear separation of policy fields, the federal government provides transfers to the Provinces which are 'mildly' conditioned on the policies adopted in the field of education, health, and social assistance. One major vertical transfer program is the Canadian Health and Social Transfer (CHST) program. It is an equal per-capita bloc grant which, importantly, is fully fungible. The flexibility in transfer spending can be interpreted as a means not to strongly intervene in provincial legislative autonomy. However, transfer eligibility is tied to basic characteristics of the provincial policy. For instance, in the context of health programmes Provinces are only eligible for the full amount if the health programme is publicly administered, comprehensive and universal (among other requirements).

With regard to taxes, the federal government and the Provinces have a wide range of taxing authority. It relates to both direct and indirect taxes. Household income and corporate income are taxed by both levels of government. Also, the federal sales tax is topped up by a provincial sales tax in almost all Provinces.

Thus, the fields of responsibility of the federal and the sub-central level are rather exactly defined. Moreover, the Constitution explicitly states that there should be no overlapping of responsibilities: "And any Matter coming within any of the Classes of Subjects enumerated in this Section [powers of the federal level] shall not be deemed to come within the Class of Matters ... comprised in the Enumeration of the Classes of Subjects by this Act assigned exclusively to the Legislatures of the Provinces." (s. 91).

Past reforms, future reform needs

The allocation of tasks to the federal and the provincial levels seems to have been changed only insofar, as the federal responsibility for unemployment insurance has been introduced into the Constitution which dates back to 1940. Subsequent important constitutional changes were implemented in the early 1950s and mid-1960s related to pensions. More recently, reforms in the sense of creeping change have been quite manifest, especially with respect to federal involvement – via co-financing – in provincial responsibilities for health, education and social security. In particular, spending on health, education and social assistance expanded significantly which increased the fiscal importance of provincial governments relative to the federal level. The expansion, however, was most notably due to the fact that Provinces are assigned those policy areas which – as in other countries – grew the most in fiscal importance over the last twenty years. The spending trend has been accompanied by more reliance of Provinces on own-source tax revenues. Specific transfers from the federal level were re-organised. Their growth has been tied to the growth of GNP rather than the growth rate of the respective expenditure component. As a consequence, provincial governments had to resort increasingly to own-source tax revenues. Possibly as a consequence of the creeping decentralisation of financing, the Romanow Commission in 2002 has highlighted a "widening gap in the type and quality of medical services available from province to province" (Smith 2004, p. 153).

A continuing source of political discussion is the use of the federal spending authority. Provinces (in particular Quebec, but also wealthy Provinces such as British Columbia, Alberta and Ontario) repeatedly criticise federal transfer programmes which influence

policy areas which are under legislative jurisdiction of Provinces. The Social Union Framework Agreement is one of the latest attempts to coordinate on the appropriate relation between the federal level and Provinces. Among other goals it aims at developing a shared framework for new Canada-wide initiatives which are supported by transfers to the provinces. The framework intends to promote cooperation across levels of government. It is only of a loose political nature (not legally binding), with no assignment of re-assignment of policy areas. The federal government and none of ten provinces signed the agreement in 1999. It has not been signed by Quebec. One of the concerns on the part of Quebec is that the framework does not explicitly allow for the option to opt-out of newly established transfer programmes with cash compensation (in order to establish a related program independently). The Kirby Report, released in 2002, has a similar objective. The drafting institution, the Senate Committee on Social Affairs, Science and Technology, recommended strategies for increasing the supply of health care, in particular in under-served regions, and stressed the need of coordination between Provinces and the federal government.

Taxing powers and vertical fiscal imbalance

The federal level as well as the Provinces is permitted to use any tax base independently from the other level. This applies to all direct taxes, income and corporate tax as well as to the sales tax (after this tax too has been declared “direct tax” by a court ruling). Thus, “taxation autonomy is nearly limitless” (Schneider, 2006). However, such a system requires a high degree of coordination and harmonisation efforts between different layers of government as well as between (mostly neighbouring) provincial governments.

Despite high taxing autonomy, vertical fiscal imbalance is not negligible. In 2005 nearly a quarter of total provincial revenues came from the federal level; this figure was at about 21% and 20% in 1986 and 1996, respectively.

Fiscal equalisation mechanism

In 1982, the Constitution has been amended by a Charter of Rights and Freedoms. In its Part III (Equalisation and Regional Disparities) the Charter stipulates in s. 36 (1) as a commitment of both the federal and the provincial levels:

- a) promoting equal opportunities for the well-being of Canadians;
- b) furthering the economic development to reduce disparity in opportunities; and
- c) providing essential public services of reasonable quality to all Canadians.

The fiscal equalisation mechanism is an important instrument to realise the aims defined in the above mentioned section of the Charter. The volume of financial means available for redistribution to the Provinces amounts to about 3% of total government revenues and is, thus, quite significant. The system of fiscal equalisation is of a strict vertical nature but with horizontal equalising effects. Given the wide range of taxing autonomy and of diverse taxing systems of the Provinces, it is quite difficult to develop a fair mechanism for fiscal equalisation. This is attempted by constructing a “Representative Tax System” which standardises provincial tax revenues (standardised tax bases and tax rates) – for 33 categories of revenues (Baretti et al., 2001 p. 210). The result is a theoretical fiscal capacity of the Province in question which is then compared with the average fiscal capacity of a subset of Provinces. These include British Columbia, Saskatchewan,

Manitoba, Ontario, and Quebec – the so-called Five-Province Standard. Provinces below the average receive full equalisation up to the average, Provinces above the average receive nothing (and pay nothing).²²⁸

The *fiscal* equalisation mechanism in the narrow sense, as described above, is supplemented by equalisation payments for differences in population numbers and by payments for participation of the Provinces in the Canada Health and Social Transfer Programme. The total amount available for the two latter grounds of federal payments to the Provinces is about double the amount of the fiscal equalisation proper. Conditional transfers to the Provinces are mainly made in the framework of federal programmes, like those for health and education. Conditional transfers for other purposes are quite small (3.3 % of all Provincial revenues) which is partly a result of the possibility of the Provinces to opt-out of co-financing such tasks for which they have (and want to retain) the sole responsibility.

Autonomy

Autonomy – in a narrow fiscal and a wider political sense – of the Provinces turns out to be quite large. This is the result of several factors the most important of which are: a clear constitutional definition of a wide range of exclusive provincial powers, their high degree of taxing autonomy and the opt-out rule.

By contrast, the autonomy of the local level seems to be quite restricted (Seidel and Vesper, 1999). Their only major source of own revenues is the real-property tax, while the bulk of their expenditures is financed by the Province. Moreover, the responsibilities of the local level are not expressed in the Constitution.

3.3 Switzerland

Switzerland is one of the few countries which exhibit a high degree of decentralisation. Its historical roots date back to the Middle Ages and were constitutionally confirmed in 1848, when the *Confoederatio Helvetica* was established. Today, 26 Cantons make up the confederation which comprises about 3000 municipalities which differ in the degree to which they are assigned fiscal responsibilities.

Division of responsibilities

The Swiss Constitution is continuously revised by public referenda which may add, delete or change articles, paras, sentences or parts of sentences. The many revisions occurring make it useful from time to time to reformulate and to rearrange the whole Constitution. The main general revisions occurred in 1874 and in 1999. At first, we consider the present Constitution and the division of responsibilities between federal level and Cantons. In the next section we ask whether changes have occurred.

The fundamental principle in the distribution of task is the subsidiarity principle. Fiscal responsibilities are allocated to the local level and can be transferred to the cantonal level

²²⁸ See Boadway and Watts (2000) for a more detailed description. See also Bird and Vaillancourt (2007) on Canadian public finance.

to the extent that the local level agrees to it. Swiss Cantons are constitutionally declared “sovereign” – if this is not restricted by the federal Constitution. The federal layer, as a general rule, has responsibilities in those fields which demand a uniform arrangement in all Cantons (Art. 42). These are explicitly mentioned in the Constitution. In particular, the Constitution mentions the following responsibilities of the **federal level**: Defence, civil security (Art. 57 – 61); rules for vocational training (Art. 63); federal Universities (Art. 63a.); promotion of research and innovation (Art. 64); rules for continuing education (Art. 64a.); rules for environmental protection and regional planning (Art. 74, 75); rules for the use of water and forest (Art. 76, 77); rules for fishery, hunting and animal protection (Art. 79, 80); public construction (Art. 81); rules for the use and transport of energy (Art. 89, 90); nuclear energy (Art. 90); post and telecommunication (Art. 92); rules for radio and television (Art. 93); conduct of competition policy (Art. 96); protection of consumers (Art. 97); rules for banking and insurance (Art. 98); conduct of monetary and exchange rate policy (Art. 99); conduct of stabilization policy (Art. 100); conduct of external economic policy (Art. 101); securing an emergency reserve of food (Art. 102); regional, industrial and agricultural policy (Art. 103, 102); rules for the protection of employees (Art. 110); organization of precaution and insurance for elderly and disabled persons (Art. 111, 112); rules for job-related precaution (Art. 113); unemployment insurance (Art. 114); rules for the support of indigents, support of cantonal measures (Art. 115); rules for the support of families, support of related cantonal measures (Art. 116); rules for health and accident insurance (Art. 117); measures for the protection of health (Art. 118); rules for weights and measures (Art. 125). The assignment of expenditure responsibilities to a large extent follows economic principles.

Tasks which presumably exhibit large spill-overs and/or economies of scale such as public transport, defence, and stabilization and monetary policy are assigned to the federal level. Rights of the **Cantons** are in the following fields: to determine their tasks within their responsibilities (Art. 43); to conclude contracts with other Cantons, specifically for tasks which exceed the boundaries of a Canton (Art. 48); public schools (Art. 62); cantonal Universities (Art. 43a.); protection of nature and homeland (Art. 78); rules for the use of energy in buildings (Art. 89); support of indigents (Art. 115); support of families (Art. 116). Art 43 seems to further include some de facto rights (duties) of the Cantons: provision of health infrastructure, regional and local planning of land use, usage of regional water resources.

The constitutional provisions indicate that the Cantons share responsibility with the federal level in some important policy fields. Most notably, these fields include education and social policy. Education responsibilities are roughly assigned according to the amount of spill-overs. Kindergarten and primary education are assigned to the municipal level, secondary schooling to the cantonal level, and tertiary education to both the cantonal and federal level. The latter’s involvement is confined to the provision of grants for cantonal universities. It is only in the case of polytechnic universities that the federal level has the major fiscal responsibility.

Past reforms, future reform needs

It is not surprising that public tasks have been dramatically enlarged in the course of time. But it is worth noting that practically all of the new tasks have been allocated to the federal level.

The Constitution of 1847 mentions only the following fields of federal responsibility: defence, public construction, surveillance of cantonal police for water and forest, rules for fishery and hunting, construction and conduct of railways, federal Universities, customs duties, rules for labour protection, post and telecommunication, surveillance of roads and bridges of national importance, coinage and banknotes, weights and measures, monopoly for the production and sale of gunpowder.

Cantonal responsibilities are explicitly mentioned (in 1874) only with respect to primary schooling (which has to be obligatory and “sufficient”) although the Cantons traditionally have exercised and are exercising many more public tasks. Thus, while the really new and additional public tasks have been mainly allocated to the federal level, it seems that the likewise (somewhat) longer current list of cantonal responsibilities is primarily the result of explicitly mentioning them in the Constitution. Thus, there has been a tendency towards centralisation, albeit not due to a major re-assignment of policy tasks.

There seems to be only one public task which has been shifted between levels of government: unemployment insurance. At the same time, it is an example for a shift between private and public provision of services – see Aegy (2003) and Degen (2002). The first support measures for unemployed persons developed already in the late 19th century. Professional associations (at first the printers, 1884) created relief funds on own initiative and on a voluntary basis. Some municipalities followed. The city of St. Gallen made its relief fund obligatory in 1894. In 1924, a federal law provided federal subsidies for the unemployment relief funds (or insurances). These subsidies made it worthwhile for some Cantons to declare the participation in an unemployment insurance obligatory for low income groups. But in 1942, a new federal law stipulated that the Cantons have to contribute equally. A federal law of 1951 codified the existing situation: Cantons may declare unemployment insurance obligatory for certain income groups; there are cantonal and municipal unemployment insurances as well as those of trade unions and private welfare organisations; the insurances are legally and financially independent, contribution rates differ widely, but payments are regulated by federal law.

Despite all private initiatives and measures of municipalities, Cantons and the federal level, the enrolment rate in unemployment insurances remained low and was at around 20% in the middle of the 1970ies. It was only after the oil crisis of 1974 (with a slight increase in unemployment – compared to that of the 1920s and 1990s) that new constitutional and legal initiatives have been started which finally (1984) led to a comprehensive federal regulation of and the obligatory participation in an unemployment insurance.

The high degree of cantonal fiscal autonomy together with the increasing reliance of the central level on direct taxes led to a number of reform projects. In 1977 a federal competence was established for harmonising the direct taxes on the federal, cantonal and municipal levels. In 1993 the Federal Law on Tax Harmonisation was enacted which, however, relates primarily to basic taxation principles and the common definition of tax bases. The right of the Cantons to set tax rates is not affected. A Federal Law on direct federal taxation, also in 1993, complemented the law on harmonisation. The federal

harmonisation law obliged the Cantons to adjust their system of taxation according to the federally established rules within eight years.

Despite the increasing influence of the federal level, fiscal responsibilities are still highly decentralised relative to other countries. Part of the reason why a reassignment of policy task to the central level has been relatively rare is the attempt of cantonal governments to address issues of policy externalities by means of inter-cantonal coordination, rather than demanding an involvement of the federal government. The same tendency applies to municipalities which first try to form inter-communal jurisdictions before allocating policy responsibility to the cantonal level.

Another reform project is the fiscal equalisation system (see above).

Taxing powers and transfers

Indirect taxes are constitutionally reserved for the federal level and make up the great bulk (around 60%) of federal tax revenues. Historically, this share was even higher. In the course of time, however, the federal level has increasingly relied on direct taxes too. By contrast, the own revenues of the Cantons consist primarily of taxes on income and wealth (personal and business). The taxing power of the Cantons was and is large. However, originally it comprised not only tax rates and deductions, but included the right to define tax bases, tax liability, taxing period, tax penalty law and other legal and administrative proceedings. By the reforms of 1993 (see above), taxation autonomy of the Cantons is now mainly limited to setting tax rates and deductions. Self-financed expenditures of Cantons made up around 60% of all cantonal expenditures (Stegarescu, p. 157).

A part of the general reform of the federal system is the reform of the fiscal equalisation mechanism. The latter is foreseen to take effect from 2008 onwards. The old fiscal equalisation system was based on numerous different kinds of transfers, partly conditional, partly unconditional, was highly complex and rather nontransparent and also led to a comparatively low level of equalisation. The index of fiscal capacity before equalisation ranged from 30 (poorest Canton of Jura) to 228 (wealthiest Canton of Zug), while after equalisation the range was from 60 to 200 (in 1996, Seidel and Vesper, p. 23). Fiscal equalisation does not accomplish too much in terms of reducing fiscal disparities, but there is also neither a constitutional provision nor political claim to realise comparable fiscal conditions across Cantons.

The new system consists of two approaches. At first, it aims at (partially) equalising the differing fiscal revenue capacity of the Cantons. This fiscal equalisation mechanism entails a vertical and a horizontal element and is expected to lead to a minimum fiscal capacity level of 85% of the average. The second part of the new system takes into account advantages and disadvantages the Cantons typically possess. For example, Cantons in mountainous regions with specific duties to provide flood control measures or to maintain roads or Cantons with a high level of elderly people, unemployed persons or foreigners (mostly poorer Cantons) are ranked higher in the calculation of offsetting payments. The same is true for Cantons (mostly richer and City Cantons like Zurich, Basle, Bern, Geneva) which are regarded as providing public services with positive spill-over effects to neighbouring Cantons. By contrast, Cantons (mostly poorer ones) which

profit from public goods and services provided by the central level or by neighbouring Cantons are burdened in the calculation of offsetting payments.

Schneider and Vesper (ibid., p. 27) point to the possibility that – taken all the effects of the new system together – from a budgetary point of view poor Cantons may lose and rich Cantons may gain. However, the new fiscal equalisation mechanism is embedded in a wider federal reform which reduces federal level interference in cantonal matters and simplifies direct cantonal cooperation. Thus, saving of transaction costs, more reasonable provision of public goods and services with scale effects and better recognition of spill-over effects between Cantons may compensate also poorer Cantons for a potential loss of transfers.

Autonomy

The status of Cantons being “sovereign” has been preserved by the Swiss Constitution until today. Their right to tax is well defined but has been limited, to a certain degree, by federal harmonisation requirements. Given the large long-term increase in public responsibilities of the federal level, the autonomy of the Cantons has been – at least relatively – reduced.

3.4 United States of America

The American States existed already before the federation has been founded in 1789. Today, 50 States plus the District of Columbia hosting the Capital make up the federation.

Division of responsibilities

Art. 1 of the U.S. Constitution contains a positive list (Section 8) and a negative list (Section 9) of powers of the (federal) Congress as well as a negative list of the powers of the States (section 10).

Federal functions – and the concomitant right to raise taxes for fulfilling those functions – are constitutionally strictly limited. The list in Section 8 of the permitted fields of federal action is short. It starts with: to pay the debt (at that time stemming mainly from independence war) and “provide for the common defence and general welfare of the United States”. The list continues with the following powers: to borrow money; to regulate commerce with foreign nations and among the States; to establish uniform rules for naturalisation and for bankruptcy; to coin money and to regulate the exchange rate, to determine weights and measures; to establish Post offices and Post roads; to promote the progress of science and (“useful”) arts by securing copyrights; to provide for national defence.

Except for the “Post roads” no public construction works are mentioned. The term “to provide for the general welfare of the United States” is, most probably, only remotely related to providing a public welfare programme – the usual present understanding of welfare. There is only one Amendment (of the 27 which occurred) which relates to the definition of federal responsibilities. It is the 10th Amendment (1791) which clarifies that

all powers not explicitly delegated to the federal level are reserved “to the States or to the people”.

The negative list of congressional powers (Section 9) entails the following points: Until 1808 the States, not the Federation, have the right to regulate immigration into their territory; the direct federal tax must be an income, not a capitation tax; no federal duties on States’ exports; no federal preferences for any State (in terms of taxation or federal use of States’ naval ports); no federal expenditures without law; a statement of the federal receipts and expenditures is to be published “from time to time”.

Section 10, on the powers prohibited of States, stipulates that the States have no right: for external policy and military measures in time of peace; to emit interest bearing bills of credit; to coin money; to lay duties on own exports.

There is no explicit (nor implicit) mentioning of public duties, neither for the federal nor for the States level, like educational facilities (or even rules therefore), provision of health care or regulation of commerce. Not even civil security or police is mentioned. Public goods and services to be provided by the federal level are, thus, defined in a very prudent way. Public goods and services of the States level are not defined at all.

The American Constitution primarily consists in limiting the powers of the federal level (and defining civil rights in the first nine Amendments - “Bill of Rights”), while it leaves the (internal) powers of the States nearly unrestricted by reserving explicitly all non-federal fields of public action to the States level.

No constitutional Amendment gives an indication of any intended re-allocation of public responsibilities between federal and States level. However, the common law tradition in Anglo-Saxon countries gives court rulings a high importance. Supreme Court rulings may even affect the Constitution. The question, however, whether decision of courts may have impacted on the (change of the) allocation of public tasks between levels of government has not been considered here.

In the course of time not only public functions generally but also federal functions specifically expanded considerably (Laubach, p. 5). Public provision of education, health care, pension, unemployment insurance as well as welfare (in the sense of public spending programmes for indigent persons) do not – at least not constitutionally nor by Amendments – belong to federal responsibilities. Thus, the factual federal activities in the named fields do indeed signify a shift of public functions between levels of government.

Apart of the question how far High Court rulings have paved the way for this re-allocation of public activities between different levels of government, one mechanism seems to be specifically important in bringing about the change: earmarked grants from the federal to the States level for providing certain types, amounts and quality standards of public goods and services. By this way former States’ tasks change their proper character and become a sort of delegated tasks.

Municipal fields of responsibilities are not defined by the federal Constitution, but left to the Constitution of the States. In most States public responsibilities of the local level are

large. To provide educational facilities and to finance them is, e.g., usually a local task. Laubach mentions that local responsibilities vary greatly across States, but that “several state constitutions ... confer on municipal governments the right to create their own charters as well as considerable autonomy” (Laubach, p. 6).

Past reforms, future reform needs

Since the 1920s (Great depression) there is a historical tendency of an increase in federal responsibilities relative to the tasks of the States. This long-term trend came to a halt and even to a reversion in the 1980s, when there was a certain devolution of formerly federal spending programmes to the States level (Laubach, p. 11f). This development was preceded and accompanied by an intensive academic discussion of principles of public finance, specifically with respect to the question of allocation of public responsibilities across levels of government.

The (re-)devolution of federal tasks to the States level is most remarked in the field of income support for the poor (welfare spending) and has been enacted by the 1996 welfare reform, while a redesign of fiscal relations between federal and States level is still under discussion in some other important fields like Medicaid, highway construction and education.

Until 1996, **welfare** spending – under the programme Aid to Families with Dependent Children (AFDC) – was characterised by, on the one hand, a limited autonomy of the States for programme design and, on the other, open-ended (i.e., not capped) federal matching grants. States, however, could obtain the right to opt-out by seeking federal waivers from the AFDC rules, what half of them had done when the reform came into force. The experiences these States had gained in designing better targeted (and cost-containing) income support were of important influence on the 1996 reform. The reform replaced the AFDC programme by a Temporary Assistance to Needy Families (TANF) programme, increased the States’ authority in programme design by removing federal rules for eligibility and payment and changed the federal contributions from open-ended to closed-ended (capped) block grants. However, federal limits in programme design, although being different to before, remained. The full amount of possible federal TANF block grants can only be obtained by a State when certain minimum percentages of the recipients are working or in work preparation (while the latter programmes can be designed freely by the State).

The experimentation phase, preceding the 1996 reform, has been successful in “reducing welfare rolls by exploiting the great degree of programme flexibility” (Laubach, 2005). The fact that state Medicaid waiver proposals differed widely across states may be interpreted as an indication that the ‘preferences’ differ from one state to the another, pointing to efficiency gains from decentralisation (Marton and Wildasin, 2007). Given the evaluation, new federal tendencies “to restrict states’ ability to tailor programmes to their local needs by tightening work requirements in a way that proves impractical for states to implement” (p. 16, Laubach, 2005) tend to be detrimental to welfare.

Shared responsibilities also exist in the fields of Medicaid, highway construction and education. There is, as for welfare spending, an intensive debate about fiscal relations

between federal and States level. However, a comprehensive reform, as for welfare, did not occur up to now.

In **Medicaid** (providing medical health services to the indigent), as for cash welfare benefits, States can opt-out of the federal programme by seeking waivers, what about half of the States did. This provided them with room for experimentation which they used for cost containment efforts by changing eligibility and cost-sharing rules as well as benefits. Given the experimentation prior to the reform of the cash welfare programme, a natural question is whether such an experimentation phase proves equally advantageous in Medicaid. Put differently, the question of interest is whether the advantageous experiences in welfare can be repeated here by a combination of a devolution of programme design with the replacement of the (current) open-ended (i.e. unlimited) federal matching grant by closed-ended (capped) federal grants. A change in the incentive structure of the beneficiaries of Medicaid is much more difficult to achieve in health care where the room for co-payments and deductibles is rather limited. Devolution of Medicaid to the States level could, thus, lead to unwanted reductions of benefits and in coverage (Laubach, 2005).

Direct spending for **highway** construction and maintenance comes nearly completely from State and local governments. However, the indirect role of federal spending is much larger – about a quarter of all highway spending – and is effectuated via the Federal Highway Trust Fund (created in the mid 1950s), whose means stem mainly from federal tax revenues on motor fuel. States can apply for funds in a number of programmes, such as interstate highway maintenance or national highway construction. The federal matching rate is considerable: between 80 and 95%, according to the programme. The underlying reason has been to provide incentives to the States to “create an integrated nation-wide highway network without relying on tolls” (p. 21). However, the high matching rate reduces the costs to the States drastically and creates, thus, the risk of excessively high spending on highways. It seems advisable to either reduce the federal matching rate substantially or to shift the responsibility for highway construction and maintenance completely to the State level – with the corresponding right to charge tolls even on interstate highways (Laubach, 2005).

In the field of primary and secondary **education** the financing role of the federal level was and is limited, accounting for only 8% of nation-wide spending on that subject. However, the No Child Left Behind Act (NCLB) of 2001 “drastically expands testing requirements and establishes new accountability requirements that states have to meet in order to remain eligible for federal grants” (p. 21). The new rules are so comprehensive, detailed and demanding that the question arises whether the NLCB law is – at least partially – an “unfunded mandate”, i.e., imposing financial burdens on the States without adequate federal funding. While the federal level correctly (in the strict legal sense) argues that States are free to opt out, the NCBL’s requirements are binding any way. Thus, opting-out would not reduce much of the States’ financial burden and is, in effect not a realistic option for financial and political grounds.

Taxing powers and vertical fiscal imbalance

The States are largely free to determine their own tax policy. Tax subject, tax base and tax rates can be chosen by the States. While the tax revenues of the States accrue from

direct and indirect taxation, the federal level is mainly restricted to income taxes. At the same time, vertical fiscal imbalance is considerable. More than a quarter of States revenues is made up of federal grants.

Fiscal equalisation mechanism

Contrary to most other federations, there is no explicit fiscal equalisation mechanism for the States. However, federal grants which are generally conditional and tied to the States' participation in federal programmes (mainly block grants for welfare spending and matching grants for Medicaid) in effect have a certain equalising function. Nevertheless, differences across States in terms of fiscal capacity and standard of living remain large.

Autonomy

The degree of freedom of the States to determine their own tax policy is large. Moreover, there is no revenue sharing with taxes accruing to the federal level. Autonomy is further increased by the deductibility of income taxes on States level from federal income taxes. Moreover, States can opt out of federal programmes. On the other hand, all federal grants to the States level are earmarked (despite their usual name "block grants" (Laubach)).

3.5 Summary

While considerable decentralisation trends in developing and transitional countries are reported in the literature, most high-income countries exhibit only slight changes in their degree of sub-central autonomy. There exist, however, some exceptions, the most important of which are Spain and Mexico (the latter an OECD, but not a high-income country), where strong and lasting trends of decentralisation exist. In Germany and Canada the trends towards more decentralisation are of a lesser degree but likewise remarkable and of a longer-term nature. On the revenue side, considerable decentralisation is also observable in Belgium, Italy, Japan and Spain. By contrast, Greece, Norway, Switzerland and the United Kingdom seem to exhibit *centralisation* tendencies, at least when considering the revenue side.

In the four federal countries considered here in more detail – Australia, Canada, Switzerland, the United States – there have been found only two cases of an explicit change of allocation of public responsibilities across levels of government. One is the unemployment insurance in Switzerland which was, step by step, shifted from private and Cantonal to public and Federal responsibility. The other example is the welfare spending reform in the U.S. in 1996. This programme of shared responsibility between federal level and States was originally characterised by, on the one hand, strict requirements for obtaining federal funding and, on the other hand, generous rules for such funding, namely open-ended matching grants. During a period of permitted experimentation in programme design States gained valuable experiences which finally led to new and more liberal federal rules for States' welfare spending and less generous federal financial support.

Although an explicit reallocation of public responsibilities across levels of government seems to be rare, it is quite sure that such reallocation is continuously occurring. However, it is mainly effectuated by the change of rules under which sub-federal layers

are eligible for federal (programme) grants. Most of the changes of rules have only slight repercussions on sub-federal own revenues, while their dependence on federal grants is often enhances.

The main factors to be taken into consideration in determining an “optimal” allocation of tasks across levels of government –local preferences, spill-over effects and scale economies – seem to differ largely across public tasks as well as across countries and, moreover, the actual assignment of policy tasks seems to be considerably *path-dependent*. Despite the path dependency, a common pattern observed in the four countries is that in most of the spending-intensive fields of public activity – like welfare, health, education and highways – responsibilities are shared between federal and sub-federal levels. Sub-central autonomy and its change seem to depend less on an explicit definition of tasks but more on the definition of eligibility for federal grants and of the methods of funding. The latter are to a large extent under the control of the federal government. As happened in the US as well as in Canada, federal transfer policy significantly influences state governments’ activities in health, education and welfare spending, although the policy tasks are under the legislative jurisdiction of states. Such a fiscal arrangement may be a model for the EU where it is unlikely that important policy tasks are assigned from the member state level to the EU. Combined with a flexible form of fiscal federalism as observed in Canada, where e.g. Provinces are allowed to opt out of federal programmes (possibly with compensation), such a fiscal involvement of the EU will be a pragmatic way of finding the proper assignment of policy tasks in a politically acceptable way in the EU – also with a focus on establishing EU-wide policy objectives in the areas of education, health and social policy.

Tables 3 and 4 below provide tentative indications of the distribution of responsibilities with respect to the allocation function of the budget (expressed as % of GDP and as % of total expenditure).²²⁹

²²⁹ Due to the various data sources, the figures are to be treated with caution

Table 3 Distribution of responsibilities, as % of GDP

Policy	EU		Australia		Canada		Switzerland		United States	
	Central	De-central	Central	De-central	Central	De-central	Central	De-central	Central	De-central
Allocation										
Single Market	0.01	0	1.66	2.81	1.12	2.8	2.52	3.08	1.28	1.75
R&D	0.04	0.7								
Education	0.01	5	2.46	3.6	0.47	8.25	0.96	5.87	0.34	7.16
Environment	0.07	0.4	0.07	0.43	0.12	0.6	0.03	0.63		
Agriculture, Fishery and Rural Development	0.41	0.6	0.27	0.25	0.31	0.04	0.84	0.82	0.45	0.22
Of which Fishery and Maritime	0.01									
Networks and Infrastructure	0.03	1.8	0.29	1.99	0.24	1.81	1.58	2.09	0.49	1.37
Health	0.004	7.2	3.74	3.48	1.59	7.16	0.04	4.77	3.93	3.07
Freedom Security Justice	0.01	1.6	0.25	1.44	0.68	1.4	0.66	1.67	0.33	
Defence	n.a.	1.9	1.61	0	1.05	0	0.99	0.1	2.95	0
Foreign policy / aid	0.06	0.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: Own calculations, based on Eurostat, OECD, World Bank and IMF statistics

Table 4 De-central expenditures as % of total expenditures

Policy	EU	Australia	Canada	Switzerland	United States
Allocation					
Single Market	0	62.9	71.52	55.02	57.65
R&D	94.6	n.a.	n.a.	n.a.	n.a.
Education	99.8	59.4	94.59	85.92	95.45
Environment	85.1	85.1	83.56	95.6	
Agriculture, Fishery and Rural Development	59.4	48.1	10.87	49.39	33.53
Of which Fishery and Maritime					
Networks and Infrastructure	98.4	87.2	88.25	56.91	73.39
Health	99.9	48.2	81.83	99.17	43.89
Freedom Security Justice	99.4	85.2	67.43	71.57	74.37
Defence	n.a.	0	0	8.79	0
Foreign policy / aid	87.0	n.a.	n.a.	n.a.	n.a.

Source: Own calculations, based on Eurostat, OECD, World Bank and IMF statistics

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