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COHESION REVIEW

LITERATURE REVIEW ON EU
COHESION POLICY

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RESEARCH

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Preface

This is the Final Report prepared by the European Policies Research Centre, (School of Government and Public Policy, University of Strathclyde, Glasgow) comprising a literature review on EU Cohesion policy and submitted to the Department of Business, Innovation and Skills, to support the Balance of Competences Cohesion Review.

The research has been coordinated by Dr Laura Polverari and Professor John Bachtler. The report was drafted over the period 13 December 2013 – 17 January 2014 by an EPRC team comprising: Dr Sara Davies (Chapter 1); Rona Michie (Chapter 2); Dr Laura Polverari (Chapter 3); Stefan Kah (Chapter 4); Dr Carlos Mendez and Professor John Bachtler (Chapter 5); and Heidi Vironen (Chapter 6). It was revised to take into account feedback received from BIS and members of the project's Steering Group, and the discussions during the Steering Group meeting held in London on 7 February 2014. The research team are grateful for all the comments and suggestions received, and in particular to Timothy Goodship and Elizabeth Pendry for the useful feedback and constructive support provided. We are also grateful to Stephen Miller and Alyson Ross, for their research and editorial support respectively.

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Contents

Preface.....	1
Contents	3
List of abbreviations	5
Executive Summary	7
Introduction	11
Assessment of effectiveness	13
Assessment of UK benefits	49
Assessment of the value for money of Cohesion Policy	69
Assessment of international benefits of the Funds to the UK	79
Assessment of territorial governance and targeting	89
Assessment of Trans-European Networks (TENs)	107
Conclusions	117

List of abbreviations

BIS	Department for Business, Innovation and Skills
CBA	Cost Benefit Analysis
CF	Cohesion Fund
DG	Directorate General
DG AGRI	DG Agriculture and Rural Development, European Commission
DG EMPL	DG Employment, Social Affairs and Inclusion, European Commission
DG REGIO	Directorate General for Regional Policy, European Commission
DSGE	Dynamic Stochastic General Equilibrium
EBRD	European Bank for Reconstruction and Development
ECA	European Court of Auditors
EIB	European Investment Bank
ERDF	European Regional Development Fund
ESF	European Social Fund
EU	European Union
EU12	Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia, plus Cyprus and Malta
EU15	Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom
EU27	The EU prior to Croatia's accession on 1 July 2013 (i.e. EU15+EU12)
EU28	The current EU, comprising Austria, Belgium, Bulgaria, Czech Republic, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom
ETC	European Territorial Cooperation
eTEN	Trans-European Telecommunications Networks
GCE	Computable General Equilibrium
GDP	Gross Domestic Product
GNP	Gross National Product
GIMF	Dynamic General Equilibrium Model
IMF	International Monetary Fund
MLG	Multi-Level Governance
MW	Megawatt
NAO	National Audit Office
NUTS	Nomenclature of Territorial Units for Statistics
OECD	Organisation for Economic Co-operation and Development
OP	Operational Programme
PLN	Polish Zloty
RCE	Regional Competitiveness and Employment
R&D	Research and Development
RTD	Research and Technology Development
SCF	Structural and Cohesion Funds
SME	Small and Medium Enterprise
TEN	Trans-European Network

TEN-E	Trans-European Network – Energy
TEN-T	Trans-European Network – Transport
TFEU	Treaty on the Functioning of the European Union
VMF	Value for Money

Executive Summary

The aim of the study is to undertake an assessment of the evidence on EU Cohesion policy concerning whether and to what extent the objectives of the relevant policies have been met, and whether these policies and funds have delivered value for money – and an understanding of how this varies within and between policies. The review also considered EU infrastructure expenditure that might contribute to the broad aim of cohesion, specifically Trans-European Networks.

The **effectiveness of Cohesion policy** has been appraised using four main methodological approaches. All methods face fundamental challenges, notably the poor availability of regional data on socio-economic indicators and Cohesion policy spending, as well as the intractability of comparing outcomes with a genuine, counterfactual, policy-off situation. Most of the research examined – with the exception of some econometric studies – indicates that Cohesion policy has yielded positive results and contributed to core political goals, although there is considerable variation in the extent and types of the results ascribed to the policy.

- The two main macroeconomic models applied to SCF funding – HERMIN and QUEST - find clear positive effects in the net recipient Member States (where SCF accounts for a discernable percentage of domestic GDP), both during the periods of programme implementation and in the longer term (i.e. once spending has ceased). The HERMIN ex-post evaluation of the 2000-06 period estimates that SCF funding of one percent of GDP may generate increases of between 1.1 percent and 4.2 percent in GDP in different Member States by 2020, while the QUEST evaluation estimates increases of between 2.0 percent and 6.1 percent.
- Econometric regression analyses typically test for the effect of SCF funding on convergence, defined as faster growth by poorer regions, leading to catching-up in terms of GDP per capita. Results vary widely, depending on the specific technical specifications applied, and the time series and country/regional data-sets used. Some studies find evidence that SCF funding has a positive and statistically significant effect on convergence, while others find no statistically significant impact, or that impact is conditional on exogenous factors (such as the quality of national institutions or macro-economic policies) or on the time-series or geographical data used.
- Micro-economic studies using control groups have tended to report positive, but differing, results. A number of recent studies have shown that recipients of SCF funding under particular schemes have enjoyed stronger outcomes than those experienced by control groups (e.g. in terms of the leveraging of private sector investment, business productivity, net jobs creation).

Case study evaluations also generally show positive effects, although these are often stated in gross terms. The evidence on the **benefits derived from Cohesion policy implementation in the United Kingdom** is also not conclusive. The small scale of the funding relative to UK GDP, and the use of co-fund domestic policies

and spending programmes makes it difficult to identify additionality and the specific contribution of the Funds. On the one hand, the performance of UK assisted areas over the past two programme periods has been mixed and no significant catching-up can be observed. On the other hand, research has highlighted several areas where EU Structural Funds have resulted in economic development activity being expanded, beyond what would have taken place in the absence of EU funding. The EU programmes have also entailed a considerable leverage of other funding sources, especially private funds, and to have contributed to improved policy-making practices.

There is limited research on the **value for money of Cohesion policy** interventions and it is difficult to make meaningful comparisons of different policy fields or types of intervention. However, the research that exists – mostly confined to audit reports by European or national Courts of Auditors, and EU-level evaluation studies - suggests that the value for money of EU Cohesion policy is not fundamentally different than that of domestically funded policy initiatives and that the costs of administering Cohesion policy are also broadly in line with those of similar investment programmes.

EU Member States derive **benefits from Cohesion policy investments undertaken in other countries**. These benefits are direct, derived from firms winning contracts for EU-funded projects, and indirect, i.e. associated with increased export of goods and services. Research on the economic returns to net payer countries of Cohesion policy expenditure in the 2000-04 period found positive impacts on UK GDP and employment, largely due to the UK's significant trade with Ireland and Spain. A later study evaluated returns to the EU15 countries as a result of the implementation of Cohesion policy over the 2004-15 period in the Visegrád countries (Czech Republic, Hungary, Slovakia and Poland). According to this study, for the UK there were substantial returns in terms of contracts awarded to UK firms, ownership of capital and increased trade. Further, the study claims that when total returns to the country are related to their budget contributions to Cohesion policy, in Germany, Ireland and Luxembourg these returns exceed the budget contribution, thus softening these countries' net payer position. For the United Kingdom, the study estimates returns equivalent to 41 percent of the country's budget contribution to Cohesion policy. There are, however, elements of opacity in the study's calculation of budget contributions, thus these results need to be treated with great caution.¹

The **multi-level governance model of policy implementation** pioneered in EU Cohesion policy is one the policy's main areas of added value and is credited with having a significant impact on regional policy practice in the Member States and regions. It can contribute to greater policy effectiveness, legitimacy and transparency in decision-making processes, as well as greater commitment and ownership of programme outputs, but the effects on regional development are extremely difficult to quantify. Equally, multi-level governance poses challenges, linked to the

¹ The methodology used to determine the amount of country-specific budget contribution attributed to Cohesion policy is not clear, and this undermines the credibility of the assessments presented in the study. See also footnote 24 in the Chapter on the international benefits of the EU Funds to the UK.

administrative workload and bureaucracy for programme managers and implementing bodies, with negative consequences for how the policy is perceived.

Geographical concentration is another core principle underpinning Cohesion policy. Over time, **the targeting of Cohesion policy** has moved away from focusing on designated regions. Further, the policy is recognised to suffer from ‘goal congestion’ due to the need to address new EU priorities over time, and there has been an excessive dispersion of funding across too many goals and fields of interventions in many countries. Efforts to increase thematic concentration on the Lisbon agenda and Europe 2020 objectives are widely supported, but also raise challenges: loss of identity and focus; poor strategic fit for less-developed countries and regions; and, possible negative consequences for core governance principles such as integrated programming and partnerships. All of these factors point to strong arguments for reconsidering the targeting of Cohesion policy on the grounds of economic efficiency and budgetary added value. There are viable alternative models. However, arguments for the change invariably underplay or ignore the political factors: the strength of institutional support at EU level and in a significant number of Member States; and the need for a credible political strategy for achieving unanimous agreement. EU Cohesion policy is one of the areas of EU policymaking where it is possible to quantify the gains and losses of policy change, but without a strategy that can secure agreement from all Member States, even a well—grounded case for change will not succeed.

The evaluation of results and **impacts of the TENS programme** is complex not least given the general nature of objectives under programmes such as TEN-T, but also due to the fact that infrastructure is only one factor affecting regional development. Besides, resources from the TENS programme, which unlike those for Cohesion policy are not pre-allocated to individual countries or regions, fund relative small portions of the overall investments supported, meaning that the programme mostly acts as a stimulus to investment, rather than as a necessary condition without which the projects would not be realised. Nonetheless, the UK has obtained from TENS the fifth highest share amongst all EU Member States (in the period 1995-2012) and specific UK benefits can be noted at the project level, in terms of improved connections between the United Kingdom and the European mainland, and reduced journey times.

Introduction

This is the Final Report of a literature review on EU Cohesion policy submitted by EPRC to the Department of Business, Innovation and Skills to support the Balance of Competences Cohesion Review. The UK government launched in July 2012 a review of the balance of competences between the EU and the UK, i.e. an audit of what the EU does and how it affects the UK (<https://www.gov.uk/review-of-the-balance-of-competences>).

The **aim** of the study is to contribute to the part of the review that concerns cohesion, by undertaking an assessment of the evidence on EU Cohesion policy concerning whether and to what extent the objectives of the relevant policies have been met, and whether these policies and funds have delivered value for money – and an understanding of how this varies within and between policies. The review also considered EU infrastructure spend that might contribute to the broad aim of cohesion, specifically Trans-European Networks.

The **specific objectives** of the study are to assess:

- the effectiveness of Structural and Cohesion Funds in addressing the tasks given to them under the various Treaties, and other relevant goals assigned to Cohesion policy;
- the extent to which UK places, companies and workers have benefited from Structural Funds;
- whether all parts of Cohesion policy provide equal value for money, drawing on evidence from the UK and across the EU;
- the evidence as to whether the UK has benefited as a result of expenditure in other Member States;
- the extent to which the Funds should be targeted at less-developed Member States or regions and disadvantaged groups, rather than being available as sources of investment for economic development across all areas;
- the evidence (if any) to inform whether the types of activity covered by the Structural Funds are more appropriately funded at the EU, national or regional/local level; and
- the extent to which the TENS have supported or promoted cohesion, interconnection and interoperability of national networks and access to networks across the EU, and whether this has been in the UK's national interest.

The study has been conducted entirely through desk research involving a systematic review of the available evidence and drawing wholly on secondary sources encompassing the academic literature, evaluation studies, policy reports,

parliamentary inquiries and the grey literature. The review of the literature is not comprehensive given the huge volume of academic publications, policy reports, evaluation studies and other literature produced on EU Cohesion policy over the past 25 years. It is however intended to be representative of the literature and in particular of the arguments and conclusions relevant to the questions posed by BIS, and focuses especially on studies produced over the past decade.

The following Final Report is structured in six chapters addressing in turn:

- the effectiveness of EU Cohesion policy;
- Cohesion policy's benefits to the UK;
- the value for money of Cohesion policy;
- the benefits to the UK from Cohesion policy expenditure elsewhere;
- the territorial governance and spatial targeting of the Funds; and
- the benefits to the UK from the TENS programme.

These chapters deal predominantly with the European Regional Development Fund (ERDF) and, where applicable, the Cohesion Fund. The European Social Fund (ESF) is also examined in the Chapter that discusses the benefits from EU Cohesion policy to the UK.

The report was reviewed following a meeting with the study's Steering Group, held on 7 February 2014, to take into account the issues raised by BIS and the project Steering Group.

Assessment of effectiveness

The effectiveness of the Structural and Cohesion Funds (SCF) can be assessed in relation to the goals set for Cohesion policy. This chapter examines the evidence on the SCF achievements of the goals assigned to them by the Treaty (TFEU), specifically the “strengthening of the EU’s economic, social and territorial cohesion aiming at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions”, and the specific goals of the individual Funds.

The overarching goal of Cohesion policy is noted in the TFEU: ‘In order to promote its overall harmonious development, the Union shall develop and pursue its actions leading to the strengthening of its economic, social and territorial cohesion. // In particular, the Union shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions’ (European Union 2010a). Further goals are defined in the multi-annual regulations agreed for the Funds and in the programme documents through which the policy is operationalised. In addition, Cohesion policy in the 2007-13 and 2014-20 periods aims to contribute to the Lisbon agenda (Council of the European Union 2006) and the Europe 2020 strategy for smart, sustainable and inclusive growth (European Commission 2013a).

Before the landmark enlargement of 2004, there has been considerable regional catching-up across the EU15, between poorest and better-off regions, particularly from the 1980s to the mid-1990s. Thereafter, the process has continued, at least until the onset of the crisis, but at a slower pace. The 2004 and 2007 enlargements resulted in a considerable widening of the relative development gap between richest and poorest regions. The accession to the EU and the considerable investments made through Cohesion policy (and other EU policies) led the new Member States to experience a process of national growth, generally driven by the capital regions. This meant national convergence with EU averages, but also widening of infra-state disparities (European Union 2010b). The crisis, with the well-known consequences on the unemployment levels and macro-economic stability (particularly in the Southern European countries and Ireland) has fundamentally altered this trajectory of change. A key issue is the extent to which the evolution of regional disparities can be attributed to the influence of Cohesion policy, visavis exogenous factors and wider macroeconomic policy choices, and against the domestic regional policies that are in operation in a number of countries.

This chapter examines evidence on the extent to which SCF have contributed to the policy’s goals. It focuses on the four main methodologies used to analyse the effectiveness of SCF, namely:

- macroeconomic modelling,

- regression analysis,
- micro-economic studies of beneficiaries and control groups, and
- qualitative case studies.

The results of studies vary, depending e.g. on the underlying assumptions of the different approaches, as well as on the Member States / regions and time-series data included in the analysis. Moreover, variations result from the degree to which different methodologies are able to account for positive and negative economy-wide spillover effects; to isolate the effects of SCF funding from other economic influences; and to deal with endogeneity issues (e.g. that Cohesion policy investment in human and knowledge capital may have a stronger effect when an economy is expanding because there is greater scope to use the new productive capacity effectively).

All methods face fundamental difficulties in terms of:

- Inadequate data on SCF (regional and thematic) funding (especially ex-post payments), and the challenges of providing an accurate regional disaggregation of spending data, especially in poorer Member States where significant funding is channelled through multi-regional sectoral programmes, and where Cohesion Fund resources are allocated nationally rather than regionally;
- Poor data on programme outputs, and weak reliability of data on actual achievements; even when data are available, they often cannot be aggregated at regional or even programme level due to the varied measurements and indicators used;
- A lack of consistent, historical, regional time-series of data on socio-economic indicators;
- Shifts between programme periods in terms of regional eligibility, funding allocations and thematic focus;
- The challenge of comparing actual achievements with a counter-factual, policy-off situation;
- The divergent economic, social and institutional situation and developmental trajectories of EU Member States and regions.

Macroeconomic modelling

A number of macroeconomic models have been used to evaluate the impact of SCF funding. These are sophisticated models which employ blocks of equations representing different components of the economy, the behaviour of economic actors, and interactions between various economies processes. All models find that SCF funding brings net economic benefits to the main net recipient Member States

(e.g. in terms of higher GDP per capita and higher employment), with some models also finding net gains for some net contributing Member States. However, the models' results vary in terms of the scale and longevity of impact due to their differing underlying assumptions.

Strengths and weaknesses

The key strengths of macroeconomic modelling are that it can simulate the effects of policy intervention in comparison with a counterfactual 'policy-off' situation, and also that it can incorporate the impact of a range of economy-wide positive and negative externalities and spillovers related to SCF expenditure. The weaknesses of this approach, however, are that:

- it is only useful where EU funding accounts for a significant percentage of total GDP (i.e. not generally in wealthier Member States) or the results will be too small to be detected;
- each model is based on a wide range of theoretical assumptions about how economies function and how economic actors behave – and views differ on the plausibility of certain assumptions underpinning each model;
- these models are best applied at national (rather than regional) level, due to the complexities of modelling interregional linkages and leakages through flows of labour, capital and goods;
- this approach generally assumes that funding is fully absorbed and is spent efficiently on good quality projects, which may not be the case in all countries/regions.

Methodologies

Two main macroeconomic models have been applied to SCF since the 1990s (with periodical technical updating and extensions), namely:

- HERMIN (Bradley, Untiedt and Mitze, 2007; Bradley and Untiedt 2009)² - a series of macro-econometric models of individual Member States, which incorporates Keynesian short-term effects with neoclassical features on the supply side (see Box 1.1), and
- QUEST (developed by the European Commission's DG Economic and Financial Affairs) (in t'Veld 2007; Varga and in t'Veld 2009; Varga and in t'Veld 2010; Roeger, Varga and in t'Veld 2008) - a New-Keynesian micro-founded dynamic stochastic general equilibrium (DSGE) model of the EU economy³, incorporating endogenous growth (explained more fully in Box 1.2).

² See also publications at: <http://www.herminonline.net/index.php/publications>.

³ DSGE models endeavour to explain aggregate economic processes, such as economic growth, by using macroeconomic models derived from microeconomic principles.

Other models applied to SCF funding include: an input-output model (Beutel 2002), a dynamic-recursive computable general equilibrium (CGE) model (EcoMod) (Bayar 2007), the IMF's dynamic general equilibrium model (GIMF) (Allard, Choueiri, Schadler and van Elkan 2008) and, most recently, a dynamic spatial general equilibrium model (RHOMOLO) (Brandsma, Kanacs, Montfort and Rillaers 2013). The technical features of each model differ, although they largely share the main assumptions of contemporary mainstream economics. See Box 1.3 below for more details.

Results differ between HERMIN and QUEST due to differing theoretical assumptions about the structure and functioning of the economy, notably in relation to:

- **Short-term demand-side effects:** Both models allow for the SCF-fuelled demand stimulus to increase consumption but also crowd out private sector investment and activity through higher wage rates and prices, which reduce international competitiveness and raise imports. However, QUEST shows stronger crowding-out, as it is based on microeconomic foundations about optimising agents whose current decisions are affected by expectations about the future. QUEST also has a more sophisticated modelling of international interactions, so that SCF spending is seen to generate a real appreciation of exchange rates in countries outside the euro zone, thus reducing international competitiveness.
- **Longer-term supply-side effects:** While both models assume that SCF investment in human capital, R&D and public infrastructure expand productive capacity and increase efficiency, QUEST shows stronger effects because of its more explicit modelling of the long-run, endogenous growth effects of expenditure on R&D and human capital.

Both models assume that SCF funding is spent efficiently on appropriate projects and so do not take account of differences in Member States' administrative capacity. In these analyses, the key factors which shape differences in results between Member States are:

- the level of SCF funding relative to GDP;
- the composition of funding between physical infrastructure, human capital, R&D and business support;⁴ and

⁴ For example, HERMIN assumes that SCF funding for infrastructure, human capital and R&D has different levels of spillover on four dimensions, namely manufacturing output, manufacturing productivity, market services output and market services productivity. Thus a one percent increase in the level of the stock of infrastructure will induce a long-run increase of 0.2 percent in manufacturing output, 0.1 percent in manufacturing productivity, 0.03 percent in the output of market services and 0.03 percent in the level of productivity in market services. These spillover parameter values are assumed to be identical for all Member States and are based on a review of international literature.

- the structure of individual economies, with stronger impacts seen in economies with larger, more productive and more export-oriented manufacturing sectors.

Results of the macroeconomic ex-post evaluations 2000-06

The ex-post HERMIN assessment of the impact of the SCF focused on the 2000-06 budget for Greece, Ireland, Portugal, Spain, eastern Germany and southern Italy in 2000-06, as well as the 2004-06 budget for Estonia, Latvia, Lithuania, Poland, the Czech Republic, Slovakia, Hungary, Slovenia, Cyprus and Malta (Bradley and Untiedt 2009). Table 1.1 shows the cumulative impact of SCF funding on the level of GDP in these countries in both 2009 and 2020, as well as the cumulative multiplier (defined as the cumulative annual increases in GDP due to SCF funding, divided by the accumulated amount of SCF funding as a share of GDP). The cumulative multipliers indicate that an SCF injection of one percent of GDP generates increases of GDP ranging from 1.4 percent in Portugal to 4.2 percent in Ireland in 2000-20 - with lower results for eastern Germany (1.1 percent) and southern Italy (1.2 percent) due to leakages to the rest of their respective national economies.

Table 1.1 :HERMIN Cumulative SCF multipliers for 2000-2006 (ex-post)

	At the end of 2000-06 period (i.e. 2009)			In the longer term (i.e. 2020)		
	Cumulative impact of SCF on the level of GDP (percentage) (1)	Cumulative SCF receipts (percentage of GDP) (2)	Cumulative multiplier (1/2)	Cumulative impact of SCF on the level of GDP (percentage) (1)	Cumulative SCF receipts (percentage of GDP) (2)	Cumulative multiplier (1/2)
CY	0.68	0.53	1.30	0.99	0.53	1.89
CZ	3.74	2.02	1.85	7.07	2.02	3.49
EE	6.63	5.28	1.26	12.19	5.28	2.31
GR	15.89	12.28	1.29	20.34	12.28	1.66
ES	16.67	6.70	2.49	20.60	6.70	3.08
HU	6.91	3.09	2.24	9.87	3.09	3.19
IE	7.47	2.63	2.84	11.13	2.63	4.22
LT	7.58	6.02	1.26	12.88	6.02	2.14
LV	6.71	6.83	0.98	11.14	6.83	1.63
MT	2.52	1.56	1.61	4.72	1.56	3.03
PL	4.46	3.99	1.12	8.88	3.99	2.23
PT	16.75	16.40	1.02	23.42	16.40	1.43
SI	1.17	1.27	0.92	1.93	1.27	1.52
SK	4.29	3.47	1.24	7.97	3.47	2.29
DE east	5.16	6.54	0.79	7.01	6.54	1.07
IT south	10.37	11.66	0.89	13.78	11.66	1.18
EU16	11.27	7.14	1.58	15.04	7.14	2.11

Source: Bradley and Untiedt 2009, Table 5.3, p. 60, Table 5.5, p. 64 and Table 6.1, p. 79.

Note: The cumulative multipliers are calculated by cumulating the annual increases in GDP due to SCF funding, and then dividing the sum by the accumulated amount of SCF funding (as a share of GDP).

QUEST was also used ex-post to assess the impact of the SCF 2000-06 budget on net recipient Member States, plus Germany and Italy (due to the large funding allocations for their poorest eastern and southern regions respectively) (Varga and in 'tVeld 2009).

The QUEST evaluation endeavoured to take account of the costs of funding the SCF for both net recipient and net contributor Member States (see Table 1.2). However, the evaluation only provides data on cumulative multipliers for the major net recipient countries (plus Germany and Italy). Cumulative multipliers allow for a better comparison between countries because they show how an input of SCF funding of one percent of GDP leads to varying scales of output in different countries in terms of changes in GDP. At the end of the implementation phase (in 2009), the cumulative multipliers in the net recipients ranged from 0.27 in Cyprus to 1.74 in Latvia, while in the longer term (by 2020), the multipliers varied from 1.96 in Italy to 6.13 in Latvia.

The results for the net contributor countries need to be treated with caution for a number of reasons:

- First, as noted, no cumulative multipliers are available for most of the net contributor countries;
- Second, the analysis assumes that the net contributor countries (apart from Germany and Italy) received zero amounts of SCF funding, which is not the case;
- Third, the evaluation assumes that the costs of SCF funding were distributed equally between all countries which were in the EU in 2000 (i.e. excluding the countries of central Europe), as a proportion of GDP; this amounts to around 0.2 percent of GDP per country. This amount should not be seen as a Member State's net budget position *vis-à-vis* the EU budget but instead as a hypothetical additional cost assumed to be due to SCF funding;
- Fourth, the structure of the QUEST model is such that the costs of SCF funding (0.2 percent of GDP per country) are seen to be financed by an increase in labour taxes, leading to distortionary effects on the labour market and potentially to a negative impact on GDP growth;
- Fifth, the structure of the QUEST model allows net contributor countries to benefit from SCF funding in other countries, via increased export growth in those net contributor countries with strong trade links to the net recipient countries.

In most net contributor Member States, these assumptions lead to a negative effect on output (see Table 1.2). Results are, however, positive for some net contributor Member States, notably Germany and Italy, largely because the analysis includes the effects of SCF funding in the structurally weaker regions of these countries. The effect on the UK is negative (-0.61 percent) but more muted than, for example, in France (-4.6 percent); the evaluation does not explain this result but, given the assumptions of the QUEST model outlined above, it might be due to the relative

flexibility of the labour market in the two countries, as well as to the relative importance of these countries' trade links with Member States which are major recipients of SCF funding (and net recipients of the EU budget).

Table 1.2: QUEST Cumulative SCF multipliers for 2000-2006 (ex-post)

	At the end of 2000-06 period (i.e. 2009)			In the longer term (i.e. 2020)		
	Cumulative impact of SCF on the level of GDP (percentage) (1)	Cumulative SCF receipts (percentage of GDP) (2)	Cumulative multiplier (1/2)	Cumulative impact of SCF on the level of GDP (percentage) (1)	Cumulative SCF receipts (percentage of GDP) (2)	Cumulative multiplier (1/2)
CZ	1.39	1.99	0.70	5.96	1.99	2.99
CY	0.14	0.52	0.27	1.24	0.52	2.37
DE	0.61	1.37	0.44	3.64	1.37	2.65
EE	3.51	5.16	0.68	12.00	5.16	2.33
GR	12.99	11.85	1.10	42.87	11.85	3.62
ES	9.49	6.38	1.49	29.81	6.38	4.67
HU	3.08	3.03	1.02	12.50	3.03	4.12
IE	1.95	2.61	0.75	8.13	2.61	3.12
IT	1.13	2.01	0.56	3.94	2.01	1.96
LT	7.67	5.85	1.31	28.75	5.85	4.91
LV	11.65	6.70	1.74	41.10	6.70	6.13
MT	0.68	1.54	0.44	4.39	1.54	2.85
PL	4.98	3.96	1.26	23.11	3.96	5.84
PT	15.69	15.47	1.01	49.68	15.47	3.21
SI	0.84	1.26	0.66	3.39	1.26	2.69
SK	2.32	3.42	0.68	9.32	3.42	2.72
AT	-1.36			-2.40		
BE	-1.52			-2.40		
BU	1.10			0.60		
DK	-0.97			-1.90		
FI	-1.45			-2.63		
FR	-4.60			-11.75		
NL	-0.77			-1.27		
RO	0.01			0.24		
SE	-2.12			-4.33		
UK	-0.61			-1.09		

Source: Varga and in't Veld 2009, Table 5, p. 25 and Table 6, p. 34.

Note: The cumulative multipliers are calculated by cumulating the annual increases in GDP due to SCF funding, and then dividing the sum by the accumulated amount of SCF funding (as a share of GDP).

Results of the macroeconomic ex-ante evaluations 2007-13

The HERMIN ex-ante evaluation for 2007-13 provides results for four different scenarios (Bradley *et al.* 2007) but full results (notably relating to the cumulative multipliers) are only provided for two of these scenarios. Table 1.3 sets out the results for Scenario B, which includes an assessment of the effects of SCF funding

in both 2000-06 and 2007-13, and incorporates the effect of the n+2 rule, so that 2007-13 spending is assumed to continue until 2015 (the other scenario for which full results are provided also covers both 2000-06 and 2007-13 but spending is assumed to be completed by the end of 2013.) The HERMIN cumulative multipliers in Scenario B range from 0.76 in southern Italy to 2.91 in Ireland by 2009, and from 1.01 in southern Italy to 4.75 in Ireland by 2020.

Table 1.3: HERMIN Cumulative SCF multipliers for the 2000-06 period (ex-post) and the 2007-13 period (ex-ante) combined

	At the end of the 2007-13 period (i.e. 2016)			In the longer term (i.e. 2020)		
	Cumulative impact of SCF on the level of GDP (percentage) (1)	Cumulative SCF receipts (percentage of GDP) (2)	Cumulative multiplier (1/2)	Cumulative impact of SCF on the level of GDP (percentage) (1)	Cumulative SCF receipts (percentage of GDP) (2)	Cumulative multiplier (1/2)
BG	35.89	28.26	1.27	49.33	28.26	1.75
CY	8.10	4.72	1.72	9.73	4.72	2.06
CZ	64.44	19.86	3.25	81.04	19.86	4.08
EE	66.83	24.08	2.78	84.37	24.08	3.50
GR	43.76	20.32	2.15	49.18	20.32	2.42
ES	18.82	8.91	2.08	21.00	8.91	2.36
HU	38.56	23.05	1.67	51.01	23.05	2.21
IE	11.86	2.90	4.08	13.78	2.90	4.75
LV	73.55	33.78	2.18	88.52	33.78	2.62
LT	65.21	25.96	2.51	83.32	25.96	3.21
MT	30.09	16.35	1.84	36.48	16.35	2.23
PL	38.53	23.75	1.62	53.23	23.75	2.24
PT	38.73	25.05	1.55	44.96	25.05	1.79
RO	46.96	15.36	3.06	67.14	15.36	4.37
SK	45.73	23.30	1.96	57.85	23.30	2.48
SI	17.92	12.24	1.46	21.71	12.24	1.77
DE east	13.63	9.93	1.37	14.83	9.93	1.49
IT south	17.41	19.60	0.89	19.71	19.60	1.01

Source: Bradley *et al.* 2007, Tables 9-12 (Scenario B), pp. 37-40.

Note: The cumulative multipliers are calculated by cumulating the annual increases in GDP due to SCF funding, and then dividing the sum by the accumulated amount of SCF funding (as a share of GDP).

In contrast, the QUEST evaluation for 2007-13 focuses only on the effects of SCF funding for the 2007-13 period, although it assumes that actual spending will occur throughout 2007-16 (see Table 1.4 to follow) (Varga and in't Veld 2010). The cumulative multiplier for the EU12 in 2007-16 was estimated at 0.86 and in 2007-25 at 2.63. Values for individual Member States ranged from 0.53 (Czech Republic) to 1.16 (Spain) in 2007-16, and from 1.51 (Malta) to 3.67 (Spain) in 2007-25. As in the case of the 2000-06 evaluation, this study aims to take account of the costs of SCF funding, by assuming that it is financed proportionally by all Member States who

were in the EU prior to the 2004 enlargement, but does not take account of SCF funding allocations to net recipient countries (except Germany and Italy).

Table 1.4: QUEST Cumulative SCF multipliers for 2007-13 (ex-ante)

	At the end of 2007-13 period (i.e. 2016)			In the longer term (i.e. 2025)		
	Cumulative impact of SCF on the level of GDP (percentage) (1)	Cumulative SCF receipts (percentage of GDP) (2)	Cumulative multiplier (1/2)	Cumulative impact of SCF on the level of GDP (percentage) (1)	Cumulative SCF receipts (percentage of GDP) (2)	Cumulative multiplier (1/2)
BG	13.12	17.42	0.75	40.30	17.42	2.31
CY	2.49	3.05	0.82	6.97	3.05	2.29
CZ	8.95	16.84	0.53	32.19	16.84	1.91
EE	17.23	22.49	0.77	45.30	22.49	2.01
GR	5.49	5.86	0.94	15.35	5.86	2.62
ES	1.50	1.29	1.16	4.75	1.29	3.67
HU	19.28	23.36	0.83	57.14	23.36	2.45
LT	18.19	25.08	0.73	55.23	25.08	2.20
LV	21.33	24.88	0.86	65.20	24.88	2.62
MT	7.86	13.35	0.59	20.11	13.35	1.51
PL	17.29	16.85	1.03	54.10	16.85	3.21
PT	11.42	10.19	1.12	32.19	10.19	3.16
RO	13.00	13.25	0.98	34.30	13.25	2.59
SI	7.82	10.10	0.77	21.78	10.10	2.16
SK	15.79	14.44	1.09	47.61	14.44	3.30
DE east	-0.28	-1.24		-0.06	-1.24	
IT south	0.09	-0.91		1.27	-0.91	
EU12	14.68	17.06	0.86	44.90	17.06	2.63
EU15	-0.62	-0.95		-0.78	-0.95	

Source: Varga and in't Veld 2010, Table 5.2, p. 18.

Note: The cumulative multipliers are calculated by cumulating the annual increases in GDP due to SCF funding, and then dividing the sum by the accumulated amount of SCF funding (as a share of GDP).

Box 1.1: The structure of the HERMIN model

HERMIN is a neo-Keynesian macro-econometric model, with different versions for each individual net recipient Member State. Short-term behaviour is based on Keynesian demand-side mechanisms, and long-term behaviour incorporates a range of neoclassical supply-side drivers. HERMIN disaggregates the supply side of the economy into five sectors (manufacturing, construction, market services, agriculture, and non-market services), which are affected differently by the varying categories of SCF funding (in infrastructure, human capital, R&D and business support). There are two main channels through which SCF funding affects the economy:

First, during the implementation phase, SCF funding generates demand-side (Keynesian) multiplier effects, initially through higher public expenditure and then increased private consumption and investment, but also leads to a deterioration in the trade balance (due to higher imports). The demand stimulus implies a degree of crowding out of private sector activities, mainly due to labour market tightening, which raises wage rates, unit labour costs and domestic prices, and so reduces international competitiveness.

The second channel of impact concerns the supply-side, whereby SCF funding enhances stocks of infrastructure, human capital and R&D, which generate two types of positive spillover both during and after the implementation phase. The first type of spillover leads to higher output due to increased foreign direct investment, and a strengthening of the capacity of indigenous firms to compete in domestic and international markets. The second type of spillover increases productivity, leading to higher quality (or lower cost) factor inputs and improved operating conditions for businesses, as well as higher real incomes but also, negatively, to a reduction in labour demand.

HERMIN models private sector demand in Keynesian terms (e.g. with consumption seen as accounting for a fixed share of disposable income), rather than in the form of inter-temporal optimising behaviour, so that interest rates are exogenous to the model. In Member States outside the euro zone (i.e. with flexible exchange rates), increases in inflation triggers currency appreciation, leading to more limited wage rate increases than under fixed exchange rates, but also reducing price competitiveness and so introducing a limited muting of demand-side effects.

In HERMIN, the impacts of SCF funding are largely determined by:

- the scale of SCF funding as a share of GDP and the scale of the Keynesian multipliers;
- the composition of SCF financial inputs across public infrastructure, human capital, R&D and business support (and the spillover effects estimated for each of these on output and productivity in the manufacturing and market service sectors);
- the calibration of the model's behavioural equations for each Member State.

HERMIN aims to assess the effects of SCF in catching-up economies. Because of this focus on structural change, the modellers argue that long-run historical time-series data cannot be used to calibrate its parameters. The small number of observations available for calibration is seen to preclude more sophisticated types of econometric estimation and hypothesis-testing techniques. Instead, the modellers use ordinary least squares and a form of curve fitting, which relates the derived parameters to a range of estimates from other EU models where longer data-sets are available.

Box 1.2: The structure of the QUEST III model

QUEST III is a dynamic stochastic general equilibrium (DSGE) global open economy model with micro foundations and constructs the economy as an integrated system of agents who take economic decisions by continuously re-optimising, subject to budgetary, technological and institutional constraints, with current decisions being affected by expectations about the future. The version used for the 2000-06 ex-post and the 2007-13 ex-ante evaluations includes the endogenous modelling of R&D and human capital accumulation (Jones 1995). It is a global model with one block representing each of the EU27 Member States plus one block representing the rest of the world; this approach allows cross-country trade linkages to be modelled, and thus the international effects of SCF spillovers.

QUEST disaggregates SCF funding into support for: infrastructure; human capital; R&D; business; and technical assistance. The main channels of impact of SCF funding in the short-term are:

- All types of SCF funding increase aggregate demand but effects are partly crowded out by inflation and thus lower private consumption and private investment;
- A further part of the demand effects leaks abroad through higher imports; in addition, higher spending leads to a real currency appreciation in the net recipient States, thus reducing price competitiveness and exports, and worsening trade balances and current account deficits;
- Funding for R&D drives up the wages of researchers and reallocates highly skilled workers towards the R&D sector, with a negative effect on final goods production and output.

Two further channels of impact dominate in the longer-term:

- SCF funding for human capital, infrastructure and R&D boosts productivity and output;
- Support for R&D and for business reduces fixed costs and capital costs, which in turn facilitates the market entry of new firms and products, and increases investment.

QUEST also takes account of the effects of Member States' contributions to the EU budget, which lead to an increase in government indebtedness and thus taxation, with negative effects on employment. In net recipient States, however, these effects are outweighed by higher growth which raises tax revenues, leading to a reduction in public debt and lower taxes.

QUEST is composed of a number of sectors, including households (divided into Ricardian and liquidity-constrained consumers); firms producing final and intermediate goods; a research sector; and also monetary and fiscal authorities. Firms producing final goods draw on domestic and imported intermediate goods and also labour which is low-, medium- or highly-skilled; these firms produce a range of goods which are imperfect substitutes for goods produced abroad. Firms producing intermediate goods are modelled as of monopolistically competitive firms drawing on inputs from rented capital using R&D designs licensed from the household sector. The R&D sector in turn produces new R&D and employs highly-skilled labour, using inputs in the form of domestic and international ideas. Technological change is modelled as increasing product variety (Dixit and Stiglitz 1977).

Box 1.3: Other macroeconomic models applied to SCF funding

Although HERMIN and QUEST are the main models used to evaluate SCF effects, a number of other models are also applied.

First, an input-output model was used until the 2000-06 period, primarily to assess the demand-side effects of SCF funding, although more recent studies also aimed to assess induced supply-side effects in terms of changes in technology, imports, labour and capital use (Beutel 2002). An ex-ante study of 2000-06 estimated that the level of GDP in 2006 in the net recipient Member States (Greece, Ireland, Portugal and Spain) and macro-regions (eastern Germany and southern Italy) would be between 0.8 percent lower (Ireland) and 7.5 percent lower (Portugal) in the absence of SCF funding.

The other models applied at EU level all share core similarities with the QUEST model (although differ in technical details). They are: (1) a dynamic-recursive computable general equilibrium (CGE) model (EcoMod) (Bayar 2007), (2) the IMF's dynamic general equilibrium model (GIMF) (Allard, Choueiri, Schadler and van Elkan 2008) and (3) a dynamic spatial general equilibrium model (RHOMOLO) (Brandsma, Kancs, Montfort and Rillaers 2013).

EcoMod was used to generate a number of scenarios in an ex-ante analysis of the effects of SCF funding on 13 net recipient Member States (plus eastern Germany and southern Italy) in 2007-13. The most likely scenario assumes the same annual profile of payments as in 2000-06, and a thematic distribution similar to 2000-06 but with five percent of funding shifted from Infrastructure and divided equally between enterprise/innovation and human resources. This scenario shows positive effects in all net recipient Member States and macro-regions, with increases in the level of GDP of between 0.4 percent (eastern Germany) and 22.3 percent (Lithuania) by 2020.

GIMF has been used to model the joint effects of SCF and CAP funding in a two-country approach, with a hypothetical net recipient EU Member State and a hypothetical net contributor State. Results are presented as graphs to indicate trends, rather than numerically. The study finds that EU funding has positive effects on net recipient Member States and concludes that: (1) EU funds should be directed to investment rather than income support – in order to speed convergence without undue pressures on monetary policy or prices and to avoid Dutch disease. (2) Regardless of whether the net recipient has a fixed or floating exchange rate regime, EU funds would lead to a depreciation of the real equilibrium exchange rate in the medium-run (if funds were used to bolster supply) and the real interest rate would increase during the period of inflows. (3) To best accompany the EU funds inflows, the policy-mix should combine conservative and counter-cyclical fiscal policy with a strong commitment to the existing monetary regime.

RHOMOLO has recently been developed for the European Commission and incorporates interregional trade and interregional migration, as well as more detailed governmental, social and environmental dimensions. No results have yet been published but the model could potentially be used to assess the 2007-13 period ex-post, and the 2014-20 period ex-ante.

Regression analysis

Many studies – many of which are reviewed in the text to follow - use various forms of econometric regression analysis to assess the effects of SCF on the convergence of levels of GDP per capita across EU regions. For a detailed review of studies and methods, see Mohl and Hagen (2010) and Hagen and Mohl (2009). The results vary widely, with some studies showing clear positive impact, while others demonstrate impact only conditional on factors such as institutional quality and macroeconomic stability, and others still find no real positive effects. Reasons for these inconsistent outcomes include: the use of different methodologies and technical adjustments, as well as data variations in terms of time periods, NUTS units and countries/regions included. Because of this diversity in approach and data, it is difficult to use these studies to provide a comparable view of SCF impacts.

Strengths and weaknesses

A key advantage of convergence regression analysis is that it is a much simpler method than macroeconomic modelling (involving a single equation rather than the dozens of equations and parameters that make up macro models). In addition, this approach can deal with large datasets, test hypotheses in a straightforward way, and use these to generate fairly simple and clear results on SCF effects. Further, it can incorporate various explanatory variables (e.g. institutional quality or industrial structure) that may help to explain the factors that influence policy impact. In addition, these methods can be employed in a relatively 'neutral' way and so are seen as relatively free from the bias and subjectivities of individual researchers.

This approach is, however, also characterised by a number of weaknesses:

- **Theoretical adequacy:** The convergence regressions used in most studies implicitly rely on a range of theoretical assumptions which do not hold true outside the realm of neoclassical economic theory. Two key assumptions which are especially problematical in studies focusing on economic growth are, first, that technology is universally and freely available and, second, that factors of production, especially capital, are subject to diminishing returns, and that poorer economies with lower levels of capital should therefore see higher growth rates, as investors seek higher returns, and that this will lead regions to converge towards a shared long-run steady-state (Solow 1956). These views are challenged by new endogenous growth theories (Romer 1990; Grossman and Helpman 1994) and the new economic geography (Fujita, Krugman and Venables 2001) (within the neoclassical tradition) where the stickiness of knowledge and the possibility that some forms of capital are subject to increasing returns are seen potentially to lead to permanent divergence between economies.
- **'Black box approach':** The analysis does not provide insights into the complex processes, relationships and feedback mechanisms at work in individual regions and countries (Quah 1996) and reduces complex socio-economic relationships and processes to mathematically represented linear relationships.
- **Data weaknesses:** This method depends on the availability of good quality, consistent time series regional data on SCF funding and socio-economic indicators – yet in practice there are significant data weaknesses. The lack of reliable payments data means that many studies either use on commitments data (and so neglect issues relating to absorption and timing) or simply use a dummy to represent regional eligibility for Convergence funding (with a value of 1 if the region is Objective 1⁵ and zero otherwise).

⁵ •Cohesion policy is implemented according to a number of principles, one of which is the principle of 'concentration'. This dictates that resources have to be focussed on pre-defined EU-wide 'Objectives', as well as, increasingly, on selected themes. The Objectives evolved from a programme period to the next, from a maximum of six prior to 2000, to three from 2000 onwards. Currently such Objectives are: (i) the so-called 'Convergence'

- **Spatial heterogeneity:** Many (but not all) studies assume that regions 'should' converge towards a single long-run steady state – even though this assumption does not hold even within a neoclassical theoretical framework if regions have different fundamentals (e.g. factor endowments and institutional frameworks). In such a case, regions will instead converge towards a number of different long-run steady states ('convergence clubs') (Quah 1996).
- **Spatial autocorrelation:** Some studies fail to take account of the possibility that regions within the same Member State, as well as regions in spatial proximity to each other, are likely to share growth trajectories; this means that the regression equation is skewed because individual regions are not independent of each other. However, some studies compensate for this by using country dummies (Cappelen, Castellacci, Fagerberg and Verspagen 2003) and/or controlling for spatial spillover effects (Mohl and Hagen 2010).
- **Endogeneity issues** (i.e. where causal direction between independent and dependent variables becomes confused), for instance if important explanatory variables are omitted (a likely risk due to the poor availability of regional data on growth factors such as human capital, innovation, and infrastructure quality), or because two of the explanatory variables in the regression equation (the scale of SCF funding allocations, and the level of regional GDP per capita) are inversely related to each other. However, some studies use techniques to address this issue (Mohl and Hagen 2010; Dall'erba and Le Gallo 2008).

Methodologies

Most studies use neoclassical growth regressions or single equations representing a production function,⁶ where growth is seen as the function of a number of input factors (e.g. labour, capital, human capital, and R&D), augmented with variables reflecting SCF funding. The aim of this approach is to assess whether funding is supporting convergence in terms of faster growth by poorer regions and thus catching-up towards the levels of GDP per capita in richer regions.⁷ Some studies

Objective (previously known as 'Objective 1'), which relates to regions with a GDP per capita of less than 75 percent of the EU average and which have historically received the vast majority of funding (in the region of 80 percent); (ii) the 'Regional Competitiveness and Employment' Objective, which includes all other regions; and a (iii) 'Territorial Cooperation' Objective which provides funds for cross-border, trans-national and interregional cooperation. Prior to 2007, the main Objectives were the Objective 1 (the current Convergence Objective) and the Objective 2, i.e. regions facing major changes in the industrial services and fisheries sectors, rural areas in serious decline and disadvantaged urban areas (in the 2000-06 period; until 1999 the Objective 2 included regions facing industrial decline with higher than average unemployment levels). For a full review of the evolution of Cohesion policy Objectives over subsequent programme periods until the present see Allen D. (2010), pp. 234 and 236. The Objectives are set to change again for the forthcoming, 2014-2020, period: (i) 'Less Developed Regions' (the former Convergence/Objective 1, i.e. regions with a GDP per capita lower than 75 percent of the EU27 average); (ii) 'Transition Regions', i.e. regions with a GDP per capita between 75 and 90 percent of the EU27 average; and, (iii) 'More Developed Regions', with a GDP per capita higher than 90 percent of the EU27 average. Territorial Cooperation will continue, in addition to a Youth Employment Initiative and Urban Innovative Actions (see http://ec.europa.eu/regional_policy/what/future/eligibility/index_en.cfm).

⁶ Following Barro, R and Sala-i-Martin, X (1995) *Economic Growth*, New York: McGraw Hill.

⁷ Convergence is here defined as 'beta convergence' and can be contrasted with sigma convergence, where the overall scale of disparities falls over time. In methodological terms, measures of sigma convergence (e.g.

use simple linear regression models and cross-sectional data,⁸ but others draw on panel data and more sophisticated methods that control for endogeneity, spatial spillover effects, country-specific effects, and the possibility that regions are converging towards a number of different long-run steady states.

An alternative single-equation growth regression equation is constructed by Cappelen *et al.* (2003), which is based on the technology-gap approach (and is also consistent with other endogenous growth theories) (Romer 1990; Grossman and Helpman 1994). In this approach, regional differences in growth rates are seen to be driven by innovation and the diffusion of technology, and also to depend on a range of regional contextual factors (e.g. industrial structure).

Brief overview of the results of selected studies

Some studies find evidence that SCF funding has a **positive and statistically significant effect**:

- Mohl and Hagen (2010), using panel data on actual payments for Objectives 1, 2 and 3 in 126 NUTS 1 and NUTS 2 regions in 14 EU Member States (i.e. the EU15 minus Luxembourg) in 2000-06; the model includes spatial spillovers and controls for endogeneity; the results show a positive impact of Objective 1 payments but not of the total amount of Objectives 1, 2, and 3 funding;
- Ramajo *et al.* (2008), using cross-section data for 163 NUTS 2 regions in the EU12 in 1981-96, within a spatial lag model;
- Becker *et al.* (2010), using panel data for up to 3301 NUTS 3 regions in the EU12/25 in 1989-2006, using a dummy variable for Convergence regions (i.e. rather than actual funding);
- Falk and Sinabell (2008), using panel data for 1084 NUTS 3 regions in the EU15 in 1995-2005, using a dummy variable for Convergence regions (i.e. rather than actual funding);
- Dall'erba (2005), using cross-section data on a mixture of payments and commitments for 145 NUTS 2 regions in the EU12 in 1989-99; the model controls for spatial spillovers;
- Cappelen *et al.* (2003), using data for 95 NUTS 1 and NUTS 2 regions of nine EU Member States during the period 1980-97 (Belgium, Germany, Greece, Spain, France, Italy, Netherlands, Portugal and the UK), with stronger effects when country dummies are taken into account, and also stronger effects in

coefficients of variation, Gini coefficients, the Atkinson index, and the Theil index) are less useful for assessing SCF impacts because they are not so easily linked to public expenditure.

⁸ Cross-sectional data have a single dimension (e.g. the level of GDP per capita in EU regions over time) whereas panel data are multi-dimensional and so involve both multiple units and multiple time period (e.g. the level of GDP per capita, infrastructure, human capital, and Cohesion policy allocations in EU regions over time).

1989-97 than in 1980-88; further, their estimates suggest that growth in poorer regions is hampered by an unfavourable industrial structure (dominated by agriculture) and lack of R&D capabilities.

- Midelfart-Knarvik and Overman (2002), using data for Objective 1 regions in 1989-93, find that SCF funding helps regions to attract higher levels of R&D-intensive industries, and argue that SCF thus operates counter to agglomeration forces and the comparative advantage of less-developed Member States with low endowments of skilled labour.

Other studies find **positive but very small or not statistically significant effects**:

- Esposti and Bussoletti (2008), using panel data on Objective 1 payments per capita for 206 NUTS 3 regions in the EU15 in 1989-99;
- Hagen and Mohl (2008), using panel data on a mixture of payments and commitments for 1995-2005 in 122 NUTS 1 and 2 regions in the EU15;
- Rodriguez-Pose and Fratesi (2004), using cross-section and panel data for 152 NUTS 2 regions in the EU8 in 1989-99, find a weak but positive and significant impact if SCF funding as a whole is considered, but no impact when funding is divided into different Objectives.

Others find that SCF funding has **no statistically significant impact on convergence**:

- Dall'erba and Le Gallo (2008), using a mixture of SCF payments and commitments for 145 NUTS 2 regions in the EU12 in 1989-99, using cross-section data and a spatial lag model;
- Boldrin and Canova (2001), using cross-section data for 185 NUTS 2 regions in the EU15 in 1980-1996;
- De Freitas *et al.* (2003) using cross-section data for 196 NUTS 2 regions in the EU15 in 1990-2001, using a dummy variable for Convergence regions (i.e. rather than actual funding).

A number of studies consider whether impact is **conditional on the quality of national institutions and macro-economic policies. However, findings differ**:

- Ederveen *et al.* (2006), using national-level panel data for 13 EU Member States (EU15 excluding Germany and Luxembourg) with five-year averages from 1960–65 to 1990–95, find that ERDF (*sic*) funding has a significant and positive effect on beta-convergence only when conditioning variables that proxy openness, corruption and inflation are included;
- Tomova *et al.* (2013), using national data for the EU27 in 1980-2010, find that SCF funding has positive effects on socio-economic objectives (proxied by a

composite indicator reflecting the quality of infrastructure, human capital, employment and environmental sustainability), particularly in Member States with sound macroeconomic policies (proxied by low levels of government debt to potential GDP and low ratios of net foreign liabilities to GDP);

- In contrast, Beugelsdijk and Eijffinger (2005), using national data for the EU15 in 1995-2005, find evidence of unconditional beta-convergence i.e. that poorer Member States experienced catching-up whether or not they had sound institutions (proxied by an index of corruption).

Some find **positive results for some time series data sets but negative results for others:**

- Rodriguez-Pose and Novak (2013), using data on 133 NUTS 1 and NUTS 2 regions in 1994-2006, find no significant impact of SCF funding in 1994-99 once they control for factor endowments, initial conditions and institutional quality, but they do find a positive and statistically significant impact for the 2000-06 period;
- Puigcerver-Peñalver (2007), using panel data for 41 NUTS 2 regions in Belgium, Germany, Spain, France, Italy, the Netherlands, Portugal and the United Kingdom, as well as Greece and Ireland at national level, in 1989-99, find a positive impact on growth rates in 1989-93 but not in 1993-99;
- Cappelen *et al.* (2003), using data for 95 NUTS 1 and NUTS 2 regions of the nine EU Member States above mentioned during the 1980-97 period, find stronger effects in 1989-97 than in 1980-88, even controlling for the lower level of SCF funding in 1980-88. They hypothesise that this may be due to a rise in the efficiency of support in those Member States included in the study which were in the EU throughout 1980-97 (i.e. Belgium, western Germany, the Netherlands, the UK, France and Italy), following the radical reform of EU Cohesion policy in 1988.

Finally, some studies show **varied results for different countries and regions:**

- Ederveen *et al.* (2003), using panel data for 183 NUTS 2 regions in 1990-2001, find positive effects on the assumption that all regions will catch-up to the same long-run steady state, but no positive effect if they instead test for convergence within individual countries.
- Rodriguez-Pose and Novak (2013) find that SCF funding in 2000-06 has a stronger impact in wealthier Member States and in wealthier regions, which they hypothesise may be due to policy learning effects, leading to enhanced policy design and implementation, as well as shifts in the allocation funding away from transport infrastructure and direct business support towards funding for other forms of infrastructure and human resources. The results of this study appear to contrast with the outcomes of the QUEST ex-post evaluation for 2000-06, which showed negative effects for most net recipient countries

(see Table 1.2). There are, however, significant methodological differences between the two studies, which mean that their results are not comparable: (i) QUEST looks at national effects and Rodriguez-Pose/Novak at the regional effects (and, as noted, regional data on both SCF payments and a range of socio-economic indicators are of poor quality); (ii) QUEST takes account of both the Cohesion Fund and Structural Funds whereas Rodriguez-Pose/Novak only look at the Structural Funds; (iii) QUEST involves more sophisticated methods which takes account of economy-wide interactions, whereas there is a risk that regression analysis excludes key conditioning factors *inter alia* due to weak regional data; (iv) regression equations are subject to difficulties relating to endogeneity / causality i.e. they may find weaker results for regions/countries that receive large amounts of SCF funding because these are the regions/countries which are economically weaker and so tend to show lower economic growth rates)

- Rodriguez-Pose and Fratesi (2004) find that thematic funding allocations (which differ between countries and regions) also shape impact, with SCF funding for education and human capital showing a positive effect in the medium term, whereas funding for infrastructure and business support has no effects, and funding for agriculture has only short-term positive effects.

Micro-economic studies using control groups

The European Commission and individual national/regional authorities have funded microeconomic impact evaluations of specific instruments, which compare outcomes (e.g. in terms of jobs created) for the recipients of SCF funding with outcomes for a control group or comparison group of firms or individuals with similar characteristics. These studies aim to estimate how recipients would have fared in the absence of SCF funding. This section focuses on ERDF studies of support for business, R&D and innovation,⁹ although similar studies have also been undertaken of ERDF funding for urban development (ECOTEC 2010), as well as ESF funding for e.g. training schemes or wage subsidies. Studies generally show positive results (see Table 1.5 at the end of this section), although there is strong variation, depending on the specific methods used, the time frame of the study and the Member States and schemes evaluated.

Strengths and weaknesses

The key strength of this approach is that it allows for an in-depth, detailed evaluation of individual instruments within a specific national/regional economic and socio-institutional context, which incorporates a partial assessment of the counter-factual (policy-off) situation. It can therefore help in analysing the elements of any changes which are due to SCF funding, rather than to exogenous factors. If applied in a consistent way, this approach also provides a useful means of comparing the effects of different instruments (or the same instrument applied to different target groups).

⁹ For an overview, see D. Mouqué (2012) What are counterfactual impact evaluations teaching us about enterprise and innovation support? *Regional Focus* 2/2012, European Commission (DG Regional Policy).

There are also, however, a number of challenges related to this approach (University of Glasgow Training and Employment Research Unit and Metis 2012), notably:

- difficulties in identifying, recruiting and maintaining genuine control groups, which should be made up of firms/individuals with very similar structural characteristics to the recipients, and which would also in principle be eligible for SCF funding;
- the desirability of linear causalities linking SCF funding with unambiguous outcomes, rather than a situation where outcomes are complex and potentially affected by multiple exogenous factors in addition to funding;
- the need for the instrument to be implemented consistently for the duration of the evaluation, and for key factors affecting the control group also to be stable for this period;
- the lack of wider applicability i.e. this approach provides evidence on whether a specific instrument has had an impact in a particular set of circumstances but it may not be so effective elsewhere;
- the inability of this approach to take account of economy-wide spillovers and interactions and, related to this, its inability to provide an assessment of effects at programme, regional or national levels, given that the focus is on individual instruments;
- the importance of high quality data, not only on SCF recipients but also on members of the control group (which can be particularly challenging, given that members of the control group have no incentive or obligation to provide data to the evaluators).

Methodologies

Evaluations generally start by developing two data-sets. The first includes information on the recipients of funding from a particular SCF scheme; depending on programme monitoring systems, it may be relatively straightforward to collect this information, or it may involve additional *ad hoc* surveys of recipients (e.g. to collect data on whether recipients have found a job within six months, or whether firms maintain higher levels of employment a year after the project has ended). The second data-set is generally collected on an *ad hoc* basis, drawing on existing large databases or datasets of a broader population of individuals or firms, from which the evaluators then select entities which share similar characteristics with the recipient entities.

Evaluators then typically use a combination of descriptive statistical analysis and econometric regression analysis to provide an overview of outcomes and, in particular, to compare the performance of the group of recipients with a wider population with similar characteristics, sometimes over a relatively long time horizon. The comparison with the control group allows the evaluators to draw approximate conclusions on the extent to which SCF funding has had an additional effect, in

contrast to what happened to similar firms or individuals which did not receive such funding.

Studies vary in terms of the indicators on which they focus e.g. leverage of private sector investment, job creation, or improvements in productivity, innovation or wage levels.

Results

Table 1.5 provides an overview of selected recent studies and their outcomes (Bondonio and Martini 2012; Czarnitzki, Ebersberger and Fier 2007; Criscuolo, Martin, Overman and Van Reenen 2012; Alecke, Blien, Frieg, Otto and Untiedt 2010; Hart and Bonner 2011; Trzciński 2011). It also provides an indication of the more rigorous results that can be obtained by using control groups, as opposed to simply focusing on the performance of recipient firms or individuals.

First, Table 1.5 summarises data on the leverage effects of SCF and associated domestic public expenditure. The use of control groups allows for a more rigorous definition of leverage than that which is usually applied:

- without control groups, studies tend to calculate leverage as ‘total public and private investment divided by total public investment’ – and therefore implicitly assume that no private investment would have occurred in the absence of SCF and domestic funding;
- with control groups, studies can instead calculate leverage as ‘total public investment plus the additional private investment seen in comparison to the control group, divided by total public investment’ – and therefore implicitly acknowledge that a proportion of the private investment is likely to have occurred even without SCF and domestic funding.

Second, Table 1.5 shows the effects on production levels and productivity. The studies not only examine whether data for these indicators show increases over time but also the extent to which any changes are statistically significant, when compared with the control groups of firms.

Third, Table 1.5 offers an overview of net jobs created in the recipient firms, also taking account of the level of job creation in the control groups, on the assumption that the recipient firms would anyway have seen similar levels of job creation as did the control group, even without SCF and associated domestic public support. The studies show positive effects in terms of net job creation in comparison with the control groups but also indicate that this more stringent definition of job creation generates much lower estimates than those derived for gross jobs from monitoring data. For example, a study of an instrument in eastern Germany that provided investment grants and loans totalling €9.6 billion of grant equivalent in 2000-06 estimated the number of net jobs created at 27,000 (Alecke, Blien, Frieg, Otto and Untiedt, 2010). This compared with aggregated outcome data of 107,000 gross jobs created plus 439,000 gross jobs safeguarded.

Moreover, these studies take a stricter approach to accounting for deadweight, displacement and substitution effects than that used in studies without control groups. For example, based on the control group approach, Bondonio and Martini's (2012) study of an investment grant scheme in Italy estimated that 12,000 net jobs were created in recipient firms, in addition to the number of new jobs created in both the control group and the recipient firms. They also used a more conventional approach (using a survey of beneficiaries) to estimate jobs net of deadweight, displacement and substitution effects, finding a higher figure of 36,000 net jobs created. Both figures were significantly lower than the 82,000 gross jobs created estimated based on outcome data.

Table 1.5: Outcomes of selected micro-economic evaluations using control groups

Authors	Member States	Instruments	Leverage	Impact on production	Impact on productivity	Jobs created (Evaluation results)	Gross jobs (monitoring data)
Bondonio & Martini (2012)	Italy	(1) Law 488 (investment grants). Focus on 6189 firms which each received an average grant of €419,777 in 2000-06 (2) SME loans, grants, interest rate subsidies in Piedmont. Focus on 10,526 SMEs which each received an average net grant equivalent of €10,830 in 2005-09	(1) 0.5-0.7 (2) 1.3	(1) Rises in line with employment (2) Rises at least in line with employment	(1) No change (2) Small increase for loans but not grants	(1) 12,000	(1) 82,000 created
Czarnitzki <i>et al.</i> (2007)	Finland, Germany	R&D support: subsidies, networking, collaboration and mixed packages	1.7				
Criscuolo <i>et al.</i> (2012)	UK	Regional Selective Assistance to 136,000 firms in 1986-2004. The average grant was c. £125,000		Rises by more than employment	Increase is statistically insignificant		
Alecke <i>et al.</i> (2010)	Germany (eastern regions)	(1) Investment grants/loans of €9.6 billion grant equivalent in 2000-2006 (2) R&D grants and loans in the eastern Land of Thuringia in 2000-06	(1) 1.4-1.5 (2) 0.9-1.0			(1) 27,000	(1) 107,000 created plus 439,000 safeguarded
Hart & Bonner (2011)	UK (Northern Ireland)	All schemes (grants, advice, networking, etc.) offered in 2001-08		Small, but statistically significant	Small, but statistically significant		
Trzciński (2011)	Poland	Investment grants to 2,800 SMEs in 2004-06. The average grant was PLN 532 000 (c.€133,000)	0.8	Rises in line with employment	No greater increase than in control groups	10,500	25,000 created

Source: Mouqué 2012.

Notes: (1) Outcomes are not comparable across studies due to different methods and datasets used. (2) Leverage is defined as 'total public (EU and domestic) investment plus the additional private investment seen in comparison to the control group, divided by the total public investment'. A leverage effect of 1.7 indicates that, for each unit (e.g. euro or pound sterling) of total public spending (EU and domestic), the recipient firms invested an additional 0.7 euros or pounds i.e. on top of the amount of private money invested by firms in the control group. Similarly, a leverage effect of 1.0 indicates that, for each unit of total EU and domestic public spending, the recipient firms invested the same amount of private money as that invested by firms in the control group.

Case studies of programmes, instruments and major projects

Both the European Commission and individual Member States and regions have funded case study evaluations of the effects of SCF funding at regional, programme or project level, drawing on monitoring data on, interviews and sometimes also quantitative analysis. These studies generally show positive effects, which may either be stated in gross terms which aggregate output data, or may make more sophisticated estimates of impact net of multiplier, deadweight, displacement and substitution effects. In either case, results tend to involve an element of subjective assessment. For further studies relating to the UK, see the Chapter on the Assessment of UK Benefits.

Strengths and weaknesses

The main strength of case studies is that they allow for an in-depth, rich exploration of the effects of individual instruments and/or entire programmes within a specific national/regional economic and socio-institutional context, and the reasons for success, failure or intermediate outcomes. They also allow different stakeholders' views of policy effectiveness and impact to be taken into account. This approach is, however, characterised by a number of difficulties, notably:

- **the lack of a counterfactual (policy-off) comparison**, so that the effects of SCF funding cannot be separated from other socio-economic processes, particularly in the case of evaluations that aim to extrapolate from simple outputs (e.g. number of firms assisted or length of road built) to indicators related to employment, GDP per capita, productivity, social cohesion or well-being;
- **their results are complex, qualitative and often unwieldy** (reflecting the complexity of SCF programmes and socio-economic processes) and so may not provide a coherent or succinct message on success or failure;
- **results cannot be generalised** or transferred from the case study regions to other regions, due to structural socio-economic, institutional and programming differences between places;
- **studies depend on the high quality, comparable (and aggregable) programme data** on outputs, as well as data for a variety of other socio-economic indicators; the quality and comparability of programme data has improved significantly in 2007-13 (see Box 1.3) but was significantly weaker in previous periods; even in 2007-13, data are not always comparable, and evaluators face challenges in managing and aggregating the mass of data available from monitoring systems;
- **evaluations are open to bias due to the subjective assessments of the evaluators**, which implies the need for an explicit, conceptually-rooted and clearly structured analytical framework setting out the factors that drive or shape impact, as well as evaluators with sound experience and expertise.

Methodologies

This approach takes a bottom-up perspective, aggregating project-level monitoring data on physical output and result indicators, as well as primary research in the form of interviews with beneficiaries and staff involved in implementation, and other forms of secondary data. In addition, evaluations may undertake some form of quantitative analysis (e.g. cost-benefit analysis or simple regression analysis, possibly using qualitative data as inputs).

DG Regional Policy and (to a lesser extent) DG Employment have funded a wide range of evaluations of different dimensions and themes of Cohesion policy. In addition, DG Regional Policy and DG Employment each funds a network of expert external evaluators, which annually produce country reports plus a synthesis report on a particular theme, and sometimes also country reports and a synthesis report on SCF achievements. The ERDF network has produced papers on the topic of job creation as an ERDF indicator (2013), financial engineering (2012), renewable energy and energy efficiency in residential housing (2011), good practice in evaluation (2011), and innovation (2010).¹⁰ The ESF network was set up more recently and has produced country reports and a synthesis report on the theme of access to employment (University of Glasgow Training and Employment Research Unit and Metis 2012).

Box 1.4: Strategic report 2013 on programme implementation: EU-level achievements

For the ERDF (data published by mid-2012):

- The creation of c.400,000 jobs, including c.15,600 research jobs and c.167,000 jobs in SMEs, notably in the UK, Italy, Germany, Spain, Poland and Hungary.
- Support for 53,240 RTD projects; 16,000 co-operation projects between firms and research institutions; and 53,160 start-ups, mostly in the EU15 but also in Hungary and Poland.
- New broadband access for 1.9 million people (mainly in Spain, France, Ireland and Italy).
- 1,222 megawatts of electricity generation capacity from renewables mostly in the EU15.
- Water supply projects for 2.6 million people and waste water projects for 5.7 million people.
- c.5,000 transport projects, generating 460 km of TEN-T roads and 334 km of TEN-T rail, and improving access to urban transport for 3.4 million people.
- Support for c.19,000 educational infrastructure projects, benefiting 3.4 million students, mostly in Italy, but also in Bulgaria, Spain and Greece.

For the ESF (data from 2007 to the end of 2011):

- 12.5 million participants in ESF actions supporting access to employment through training etc. two thirds of whom were previously inactive or unemployed. 2.4 million found a job within 6 months of completing the intervention.
- 15 million participants were under 24 years. In Germany, France and Hungary, young people account for 40 percent or more of all participants.
- Nearly half (46 percent) of participants have lower secondary education at most. Over 14.5 million final recipients benefited from support for social inclusion.
- About 700,000 participants, notably civil servants, have upgraded their skills.

Over half of ESF participants (52 percent) are women, reaching over 60 percent in Cyprus, Estonia, Lithuania and Latvia.

Source: European Commission 2013b.

¹⁰ http://ec.europa.eu/regional_policy/information/evaluations/index_en.cfm#2 .

Results of selected studies

Ex-post evaluations of the 1989-93, 1994-99 and 2000-06 periods

The European Commission funded ex-post evaluations of previous periods, based on monitoring data, as well as information from interviews with programme implementers. The sophistication of methods and the quality and availability of monitoring data have generally improved with each programme period. In terms of economic impact, the evaluations provide economy-level results only in terms of the numbers of jobs created or safeguarded (rather than e.g. changes in GDP per capita). They also included qualitative assessments of the effects of programmes or thematic interventions.

The ex-post evaluation of the 1989-93 (ERDF and ESF) Objective 2 programmes calculated that SCF funding either created, safeguarded or redistributed around 850,000 gross jobs, and also estimated the number of net additional jobs at around 450,000-500,000 (Ernst and Young 1997).

The ex-post evaluation of the Objective 1 (ERDF and ESF) 1994-99 programmes noted the lack of systematic data but also found that at least 798,000 jobs had been created, notably through support for productive investment (ECOTEC 2003a). Similarly, the 1994-99 ex-post evaluation of the Objective 2 (ERDF and ESF) programmes calculated that around 700,000 gross jobs were created, and estimated that around 560,000 net jobs were created (or 1.4 million jobs in net terms, also taking account of 'jobs safeguarded' and 'jobs redistributed') (Centre for Strategy and Evaluation Services (CSES) 2003).

The ex-post evaluation of the 2000-06 ERDF programmes found that around one million new jobs were created in Objective 1 and Objective 2 regions due to support for productive investment (Ward and Wolleb 2010). Further, the evaluators estimated that the average employment rate rose more strongly in the assisted areas of the EU15 than in non-assisted regions (from 55.5 percent of the working-age population in 2000 to 60.1 percent in 2006 in assisted areas, compared to a rise from 69.1 percent to 70.3 percent in non-assisted regions).

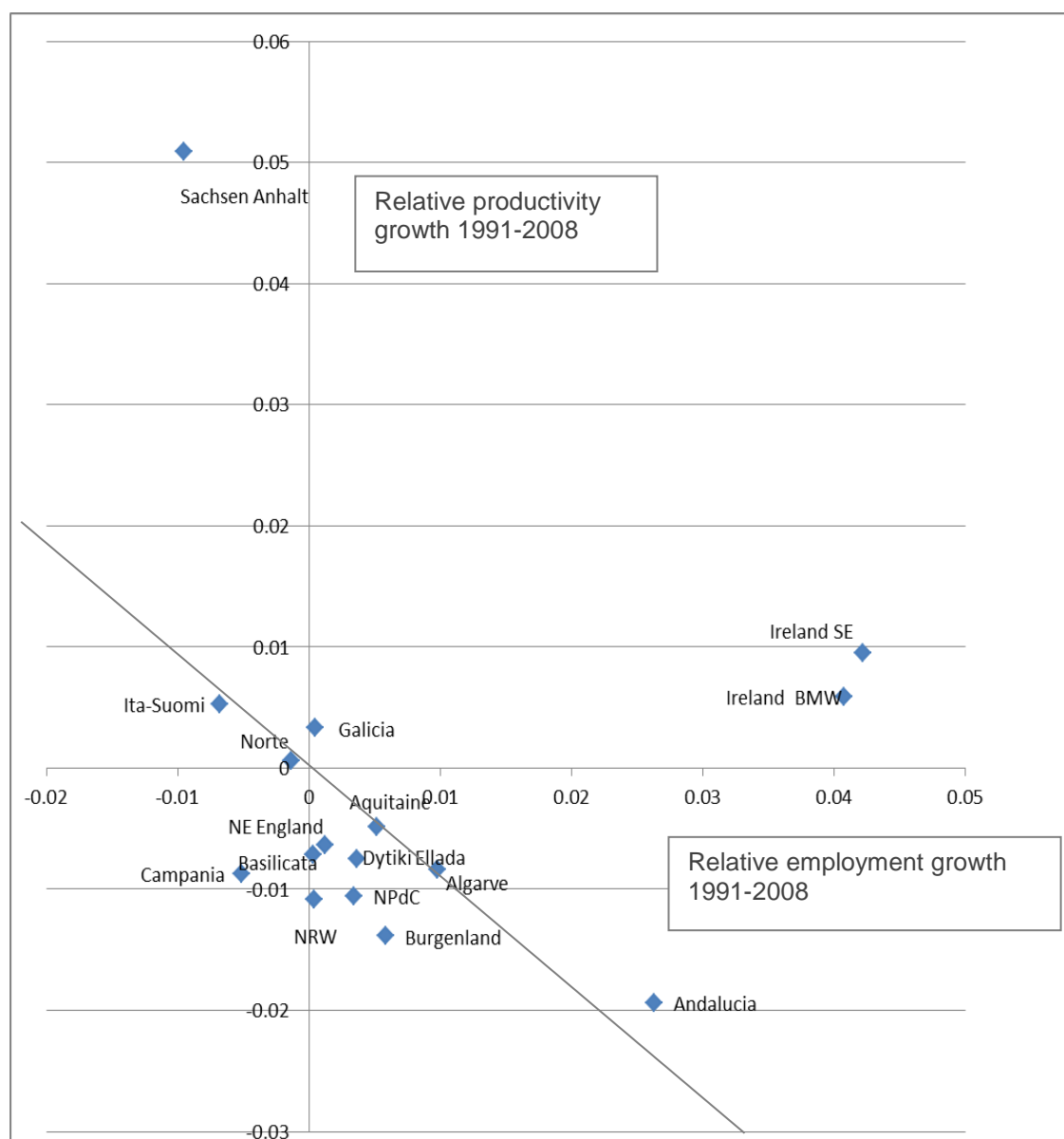
The ex-post evaluation of the 2000-06 ESF programmes did not estimate effects in terms of jobs created or other socio-economic indicators (LSE Enterprise Ltd, Vision & Value, Red2Red Consultores, Expanzió Consulting Ltd and Deutschland Denken! e.V. 2010). Instead, it noted that a total of around €120 billion in public and private funding was channelled through the programmes to around 75.5 million individuals and 1.7 million organisations. ESF funding accounted for 52 percent of total resources, with 42 percent from Member State funding and 6 percent from the private sector.

The ex-post evaluation of the Cohesion Fund (including the former ISPA) in 2000-06 found the EU funding has contributed significantly to extending and improving the transport network and environmental infrastructure (Ward, Greunz and Botti 2012). Transport funding had facilitated the construction of 1,286 km of new motorways in 16 Member States; the improvement of 3,013 km of roads within the Trans-European Transport Network in the EU12; the construction of 912 km of new railway line in 4 Member States and the upgrading of 455 km of line in Portugal; and the upgrading of 3,675 km of railway line in the EU12. Environmental funding had significantly assisted eligible Member States to comply with EU Directives on water supply, wastewater treatment and solid waste

management, and they were thus seen to have clearly contributed to environmental protection and pollution reduction.

Evaluation of the cumulative effects of programmes in 15 regions

A 2013 evaluation assessed the cumulative achievements of ERDF programmes in 15 regions in 1989-2012, including one region in each of Austria, Finland, Greece and the United Kingdom; Ireland; and, and two regions in each of France, Germany, Italy, Portugal and Spain (Bachtler, Begg, Polverari and Charles 2013). The case study teams drew on a range of data (from regional statistics, reported expenditure and quantified achievements from the programmes' monitoring systems, and qualitative data from interviews) to provide qualitative assessments of the programmes' effectiveness and utility. To appraise achievements the study relied on a dataset built from (imperfect) programme databases; it did thus not address explicitly additionality or displacement. However, with its predominantly qualitative approach, the study provides insights on the change introduced to each region, thanks to the programmes, across selected fields (e.g. innovation, enterprise, structural change etc.). It also offers an analysis of the evolution of relative productivity and employment over the period (without imputing this directly and solely to Cohesion policy. See Figure 1.1 below).

Figure 1.1: Relative productivity and employment growth, 1991-2008, in 15 selected EU regions

Source: Bachtler, Begg, Polverari and Charles 2013, p. 13.

Further information on the UK case study (North East England) is provided in the Chapter on the Assessment of UK Benefits.

The case study teams gave broadly positive assessments of the programmes' effectiveness in terms of their achievements of stated objectives (see Table 1.6), although with variation between regions and priority axes.

Table 1.6: Qualitative assessments of programme effectiveness

Region	Objective	1989-1993	1994-1999	2000-2006
Algarve	Phasing-out	3	3	3
Andalucía	Convergence	4	4	4
Aquitaine	RCE	3	3	3
Basilicata	Phasing-out	3	3	3
Burgenland	Phasing-out	n.a.	3	4
Campania	Convergence	2	3	2
Dytiki Ellada	Convergence	2	3	4
Galicia	Convergence		3	4
Ireland	Phasing-out	4	4	1
Itä-Suomi	Phasing-out	n.a.	-	4
Nord-Pas-de-Calais	Phasing-out	3	3	3
Nordrhein-Westfalen	RCE	-	3	1
Norte	Convergence	1	1	1
North-East England	RCE	-	1	4
Sachsen-Anhalt	Convergence	5	1	5

Source: Bachtler *et al.* (2013) p. 80.

Key: 5: strongly exceeded objectives, 4: exceeded objectives, 3: met objectives, 2: under-performed against objectives, 1: strongly underperformed against objectives, -: insufficient data, N/A: not in the EU at that time.

In addition, the evaluation assessed the programmes' utility – or their contribution to broader socio-economic goals, which were not defined on the basis of programme objectives but instead in terms of the case study teams' perceptions of the regions' key developmental needs. It found a positive and statistically significant correlation between these needs and actual achievements, again with some variation between priority axes and regions. More broadly, the evaluation found that programmes in most of the Convergence regions successfully improved infrastructure, which in turn enhanced quality of life, but did not contribute so strongly to self-sustaining growth or structural change via support for enterprise or innovation. The picture for the Phasing-out regions was found to be less clear-cut, due to the wide differences in the regions' economic structures and trajectories. The RCE regions all faced the need for industrial restructuring, and saw success in rehabilitating the environment in areas affected by industrial closures, but there was a more mixed picture in progress on converting the economic base to new knowledge-based activities, and only limited success in addressing the social consequences of deindustrialisation.

Evaluation of the long-term effects of major infrastructure projects

A 2012 evaluation assessed the long-term effects of 10 major transport (motorways, ports, metro lines) and environmental projects (water and waste water facilities, solid waste treatment plants) which were co-financed in the 1994-99 period in Greece, Ireland, Italy, Portugal and Spain (Centre for Industrial Studies (CSIL) and DKM Economic Consultants 2012). Together, the projects cost around €5 billion in EU funding and a total of over €10 billion.

The methods included ex-post cost-benefit analysis of the projects' long-term effects, which included a risk analysis of the range of possible variations in results, depending on different assumptions relating to key variables. Further, the cost-benefit analysis provided an analytical framework for identifying the factors which shaped investment decisions, project implementation, performance and final outcomes. In addition, qualitative techniques, including personal interviews (with public authorities, infrastructure operators, experts, and associations of users), documentary analysis and searches of EU, government and newspaper archives, were used to assess why effects were generated and to identify the nuances between a project's success or failure.

The study found that all the projects had positive economic and social impacts, notably in terms of direct welfare and economic growth, endogenous development dynamics, social cohesion, environmental effects, territorial cohesion, institutional quality, and social happiness or well-being. It also demonstrated that it takes at least five years for the effects of major infrastructure projects to stabilise sufficiently to be evaluated. In addition, the evaluation identified a series of 'development drivers' that shape the effectiveness of such projects, namely: appropriateness to the existing context; project design; financial sustainability; forecasting capacity; project governance; managerial responses; and the type of involvement of the European Commission (and sometimes the European Investment Bank).

Studies on added value

Studies have also aimed to assess the broader 'added value' of SCF (Bachtler, Mendez and Wishlade 2013). These analyses have, for example, focused on the policy's contribution to EU political goals associated with the Lisbon and Europe 2020 strategies (Mendez 2011; Ferry, Mendez and Bachtler 2008; Bachtler and Mendez 2007; Ekins and Medhurst 2003); the leverage effect of EU funding on domestic public and private sources (Bachtler and Taylor 2003; Österreichisches Institut für Raumplanung (ÖIR) 2006; ECOTEC 2003b); and the spillover of implementation methods such as multi-annual programming, partnership, monitoring and evaluation on domestic systems, as well as the wider exchange of experience (Tavistock Institute and ECOTEC 1999; Österreichisches Institut für Raumplanung (ÖIR), LRDP and IDOM *et al.* 2003; Bachtler, Polverari and McMaster 2009). The rigour and usefulness of this concept have, however, been questioned (Tarschys 2005), partly because it focuses only on positive effects and neglects negative effects (e.g. associated with the administrative burden of SCF funding (Österreichisches Institut für Raumplanung (ÖIR), LRDP and IDOM *et al.* 2003).

Conclusion

Four main methodological approaches are used to analyse the effectiveness of SCF funding, its socio-economic impact and added value, namely macroeconomic modelling, regression analysis, micro-economic studies using control groups, and qualitative case studies. Each approach has strengths and weaknesses, although all methods face fundamental challenges, notably in terms of the poor availability of regional data on socio-economic indicators and SCF spending, as well as the intractability of comparing outcomes with a genuine, counterfactual, policy-off situation.

The two main macroeconomic models applied to SCF funding both find clear positive effects, both during the periods of programme implementation and also in the longer term

(i.e. once spending has ceased). These results are due to a combination of demand-side effects during implementation and supply-side effects both during and after the spending period. The HERMIN ex-post evaluation of the 2000-06 period estimates cumulative multipliers, which indicate that SCF funding of one percent of GDP may generate increases of between 1.1 percent and 4.2 percent in GDP in the net recipient Member States by 2020, while the QUEST evaluation estimates increases of between 2.0 percent and 6.1 percent.

Studies using econometric regression analysis typically test for the effect of SCF funding on convergence, defined as faster growth by poorer regions, leading to catching-up in terms of GDP per capita. Results vary widely, depending on the specific technical specifications applied, and the time series and country/regional data-sets used. Some studies find evidence that SCF funding has a positive and statistically significant effect on convergence, while others find no statistically significant impact, or that impact is conditional on exogenous factors (such as the quality of national institutions or macro-economic policies) or on the time-series or geographical data used.

Micro-economic studies using control groups compare outcomes for the recipients of SCF funding with outcomes for a control group of firms or individuals with similar characteristics. Results are generally positive but differ, depending on the specific methods applied, the schemes evaluated, and the time series and national/regional data-sets used. A number of recent studies have shown that recipients of SCF funding under particular schemes have enjoyed stronger outcomes than those experienced by control groups (e.g. in terms of the leveraging of private sector investment, the effects on business productivity, or the number of net jobs created).

Last, case study evaluations combine data from interviews, programme monitoring systems and sometimes also quantitative analysis in order to investigate the effects of SCF funding at regional, programme or project level. These studies generally show positive effects, although these are often stated in gross terms (rather than net of multiplier, deadweight, displacement and substitution effects). In addition to ex-post evaluations of previous programme periods, important recent evaluations include: a study on the cumulative effects of SCF funding in 15 regions, and an assessment of the long-term effects of ten major infrastructure projects.

Overall, the majority of studies using the four different approaches suggest that SCF funding has a positive impact on national and regional economic development. The exceptions are some of the studies using regression analysis, which find no statistically significant evidence that regions receiving higher SCF funding have seen higher rates of growth in GDP per capita than other regions. However, all four approaches are affected to varying degrees by weaknesses in data on SCF funding and regional socio-economic indicators, as well as methodological constraints (notably the challenge of comparing actual outcomes with a counterfactual 'policy-off' situation). It is not therefore possible to draw definitive conclusions from the studies on the scale of impacts, or on the factors which condition the effectiveness of SCF funding across Member States and regions.

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Assessment of UK benefits

The UK has been in receipt of Structural Funds over successive programme periods (and even before the 1988 reform of the Funds). This chapter examines the extent to which the UK has benefited from EU Structural Funds expenditure, focusing specifically on the ERDF and ESF and on the most recent two programme periods, 2000-06 and 2007-13. Five dimensions of the effectiveness of Cohesion policy in the UK are considered: (a) the performance of UK regions in receipt of Structural Funds expenditure; (b) programme impacts; (c) the additionality of spending; (d) the leverage of the Funds (in terms of match-funding); and (e) added value.

Structural Funds expenditure and regional economic performance in the UK

The UK has been in receipt of Structural Funds over four complete programme periods since the reform of the Funds in 1988, with a fifth due to start for 2014-20 once the current Partnership and Operational Programme negotiations are finalised. Total commitment appropriations for the period 1989-2020 are estimated at €66.8 bn (at 2011 prices), averaging around €2 bn per year.¹¹

In the most recent period, the UK received approximately €9.4 billion (at 2004 prices) for the 2007-13 Structural Funds programmes, distributed between three Convergence regions (Highlands and Islands, West Wales and the Valleys, and Cornwall and the Isles of Scilly) and a further 13 Regional Competitiveness & Employment (RCE) regions - nine in England, and one each in Wales, Scotland, Northern Ireland and Gibraltar. A total of €6.2 billion was available for the RCE regions. Each of the Convergence and RCE regions had its own ERDF Operational Programme (OP) – see Table 2.1 - while the ESF allocations were covered by two OPs in Scotland, two OPs in Wales, one OP in Northern Ireland and one English OP (with regional allocations). Substantially higher levels of funding were received for the 2000-06 period (c.€18 billion in 2004 prices).

The impact of the economic crisis has meant that the socio-economic landscape in which the 2007-13 programmes have been implemented has been very different to that envisaged when the programmes were originally drawn up. In addition, Structural Funds expenditure has been diluted, in that a lower level of funding has been spread across the entire country, as eligibility for the RCE ERDF programmes covered all parts of the country which were not covered under the Convergence OPs (and little spatial targeting took place at sub-programme level).

¹¹ EPRC estimate.

Table 2.1: Cohesion policy allocations in 2007-13 in the United Kingdom (2004 prices)

Programme	Fund	€ million	% of total
Convergence Cornwall and the Isles of Scilly	ERDF	406.4	4.3
Convergence West Wales and the Valleys	ERDF	1,109.4	11.7
Convergence West Wales and the Valleys	ESF	739.6	7.8
Convergence/RCE England and Gibraltar	ESF	2,751.3	29.1
Phasing-out Highlands and Islands of Scotland	ERDF	110.4	1.2
Phasing-out Highlands and Islands of Scotland	ESF	47.3	0.5
RCE East England	ERDF	98.5	1.0
RCE East Midlands	ERDF	238.2	2.5
RCE East Wales	ERDF	64.3	0.7
RCE Gibraltar	ERDF	5.1	0.1
RCE London	ERDF	161.4	1.7
RCE Lowlands and Uplands of Scotland	ERDF	333.6	3.5
RCE North-East England	ERDF	333.3	3.5
RCE North-West England	ERDF	678.4	7.2
RCE Northern Ireland	ERDF	272.2	2.9
RCE South-East England	ERDF	21.0	0.2
RCE South-West England	ERDF	110.6	1.2
RCE West Midlands	ERDF	354.8	3.8
RCE Yorkshire and Humberside	ERDF	524.7	5.6
RCE East Wales	ESF	56.4	0.6
RCE Lowlands and Uplands of Scotland	ESF	239.5	2.5
RCE Northern Ireland	ESF	147.1	1.6
European Territorial Cooperation (ETC)	ERDF	640.2	6.8
Total		9,443.9	100

Source: EPRC calculations based on original financial plans.

While from an EU perspective, the UK has performed relatively well in terms of the main indicators of economic wellbeing over the last two Structural Funds programme periods (GDP and disposable household income per capita, measured in PPS) (EPRC 2010; Michie and Ferry 2013), data from 2000 onwards shows that the regional economic situation has not changed radically. Regional disparities have continued to grow and widen since the start of the economic crisis, notably linked to the predominance of London. For instance, as can be seen in Table 2.2, London and the South East had the highest level of UK GVA per head in 2011 (170.7 and 107.2 respectively, where UK=100). In contrast, Wales (75.2) and the North East of England (75.9) had the lowest level of UK per capita GVA in 2011. Figures for GVA per head are lower than they were in 2000 in all parts of the UK except London, South-East England and Scotland (Michie and Ferry, 2013).

Table 2.2: Workplace-based GVA per head 2000, 2005 & 2008-11 at current prices (UK=100)

	2000	2005	2008	2009	2010	2011
England	102.7	102.6	102.5	102.5	102.4	102.3
North East	77.2	78.1	76.6	76.5	76.9	75.9
North West	87.9	86.0	84.8	84.4	84.9	85.1
Yorkshire & Humber	87.6	85.4	83.2	82.6	82.6	81.6
East Midlands	90.3	89.3	87.8	87.6	88.3	86.6
West Midlands	89.8	86.1	83.8	83.0	83.8	83.8
East	96.2	9.1	94.3	92.7	92.8	92.7
London	159.8	163.6	171.0	173.9	171.1	170.7
South East	106.8	107.1	106.9	106.3	107.1	107.2
South West	91.7	91.9	91.0	90.9	91.2	91.5
Wales	76.3	75.6	73.9	73.3	74.0	75.2
Scotland	94.2	95.4	97.8	98.8	98.7	98.6
Northern Ireland	80.7	80.2	77.9	76.2	76.4	79.2

Source: Office of National Statistics (2012) Regional Gross Value Added (Income Approach), Statistical Bulletin December 2012.

Programme impacts

The UK Structural Funds programmes are very small compared to the size of the UK economy, making up only around 0.1 percent of UK GDP (HM Government 2012). This means the overall impact of Structural Funds spending can only be expected to be relatively small. Further, the relative importance of Structural Funds resources as a proportion of regional GVA varies widely. For example, in England, Cornwall and to a lesser extent the North East gain much higher amounts of ERDF investment per capita or unit of GVA, whereas ERDF is a tiny proportion of the regional economies of London, the South East and Eastern regions (Regeneris 2013).

Although frequently discussed in evaluation reports and academic literature, it is worth highlighting the many challenges involved in assessing the impact of Structural Funds expenditure in the UK.

- In 2007-13, *all parts of the UK are in principle eligible* for Structural Funds expenditure of some kind and within most regions there has been little or no geographical targeting, thus limiting the practicality of an area-based control group econometric assessment of performance (Regeneris 2013).
- Reported *performance information is of variable quality*. There is variation in how regions and projects have defined and reported on outputs and results (Tyler, 2012a). Indicators have been used in inconsistent ways, and target setting has been problematic, in part due to the impact of the economic crisis. With a few exceptions, little evaluation has so far been carried out by UK managing authorities

on the impact of Structural Funds expenditure; much of the evaluation work completed so far has focused on the effectiveness of delivery mechanisms / process issues rather than on impact. Whilst all English regions have undertaken mid-term evaluations of their 2007-13 programmes, few of these have sought to assess the emerging net additional economic impacts (Regeneris 2013).

- For evaluators, there are well-known *methodological difficulties in assessing the employment creation* associated with Structural Funds programmes (see, for example, EPRC and Fraser Associates 2002), and some research has suggested that the additionality of the employment effects may be overstated (Munday and Williams 2009).
- Many of the *impacts of Structural Funds expenditure are not yet observable* and those that are observable may not capture the full effects that will occur, in particular the impact of infrastructure spending (Regeneris 2013, Tyler 2012a). In any case, the impact of the 2007-13 period will have to be evaluated ex post.
- As pointed out in a recent report, as Structural Funding/ERDF is '*used as match funding for an enormous variety of other activity*', attempts to establish their specific impact are both impractical and relatively meaningless' (Regeneris 2013).

2000-06 programmes

The achievements of Structural Funds in 2000-06 have been evaluated ex post by the European Commission, as requested by the Structural Funds regulations. For the ERDF programmes, DG Regio coordinated a programme of thematic ex post evaluations, organised in just over 10 work packages, which mainly comprised case study research. However, the scope of these evaluations (i.e. the fact that it covered the entire EU25) and the case study-based approach adopted have meant that there is only limited information on the results and impacts of the UK programmes.

Notwithstanding these caveats, the ex post evaluation concluded that Structural Funds interventions in the UK in 2000-06 were associated with significant numbers of new and safeguarded jobs, land redevelopment, increases in SME turnover, innovation projects, training and skills development, the creation of community enterprises and other results (see Box 2.1).

Box 2.1: Ex post evaluation of the 2000-06 programmes in the UK

By the end of 2006, over 70,000 SMEs had received assistance in the six Objective 1 regions. The Merseyside and South Yorkshire regions reported 13,121 and 10,399 net additional new jobs respectively, as well as 8,842 and 9,431 net safeguarded jobs.

As a result of the funding, 344 hectares of brownfield land was reclaimed to increase the supply of commercial floorspace for new and growing businesses, 57 percent of these in West Wales and the Valleys and 28 percent in Merseyside.

Over the same period, over 225,000 SMEs in Objective 2 regions received assistance. All but the South of Scotland region reported net additional new and safeguarded jobs totalling 136,027 and 78,925 respectively. In the Objective 2 regions, 886 hectares of land were developed to support economic restructuring and growth in 10 of the 14 reporting regions, 2.5 times that developed in Objective 1 regions, half of these occurring in just three regions: North East of England (156 ha), East Midlands (142 ha) and Western Scotland (142 ha).

Source: Applica *et al.* 2009.

Further insights on the gross results of the programmes can be found in the Final Implementation Reports, which provide more recent data. However, these figures must be treated with caution, as there are considerable differences between the programmes in terms of indicators and their definition, as well as in the aggregation of results.¹² These were summarised in a previous EPRC study (EPRC 2010) which reported some 615,000 gross jobs created / safeguarded in England through ERDF support in the 2000-06 period (representing perhaps 357,000 net jobs created / safeguarded) and almost £20 billion of gross turnover created / safeguarded over the same period. Over one-third of the employment and turnover effects were in the three Objective 1 programmes for Merseyside, South Yorkshire and the Isles of Scilly; among the Objective 2 programmes, one-third of the employment effects were accounted for by the North West England Objective 2 programme.

2007-13 programmes

The UK's 2012 Strategic Report to the European Commission provides the most recent UK-wide summary of the 2007-13 programme achievements. However, this covers only the period up to the end of 2011, so it is to be expected that further progress would have been made to date. The data from the end of 2011 showed that around 129,924 gross jobs had been created using Structural Funds support in the UK (see Table 2.3).

Table 2.3: Outputs/Results from UK Structural Funds programmes to end 2011

Indicator	2007-13 programmes achieved to 31/12/11
Jobs created	50,122 ¹³
(of which) men	18,722
(of which) women	12,682
Start-ups supported	20,406
Investment induced (€m)	2,598
New roads (km)	12
New TEN roads (km)	10
Additional capacity of renewable energy production (MW)	410
Reduction in greenhouse emissions (CO2 and equivalents, kt)	15

Source: HM Government 2012.

A more up-to-date picture, if only for ERDF in England, can be obtained from the Regeneris 2013 Interim Report to DCLG (Regeneris 2013). Their analysis (which is described as illustrative rather than definitive) covers outputs of 1,038 projects, accounting for 85 percent of contracted ERDF in England to date, and 92 percent of defrayed expenditure.¹⁴ The analysis shows that the English ERDF programmes appear to have

¹² The Final Implementation Reports of Welsh and Scottish programmes are not available to the study team.

¹³ These figures are as reported in the UK 2012 Strategic Report. As can be noted, the total number of jobs created does not tally with the sum of new female and male jobs created. This is likely due to the fact that not all programmes might have reported gender-disaggregated data on job creation.

¹⁴ The data in the Regeneris interim report is based on existing interim and final evaluations (where available). These show a significant range in measures of net additionality, and assessment of net impacts (taking account of e.g. deadweight, displacement, leakage and multiplier effects) was undertaken in only a small proportion. The Regeneris

created around 58,000 gross jobs and safeguarded 59,500 jobs in the period covered by the analysis (see Table 2.4). The report notes that the picture, while appearing reasonable at the current time, hides significant variation in terms of specific outputs / results and across the English regions. In particular, several programmes (the North West and to a lesser extent the North East) appear to be 'out of kilter' with other regions, for example, the North West programme accounts for 38 percent of targeted jobs created across all of the programmes and 41 percent of jobs safeguarded. The report indicates that this may be linked to the monitoring approach taken, or may be a reflection on the impact of the recession, especially as the mid-term evaluations for the North East, North West and Yorkshire and Humberside programmes all highlighted a tendency for impacts to be most evident in terms of safeguarding performance, rather than generating growth (Regeneris 2013). Project managers expect a further 47,920 jobs might be created by the end of the period (Tyler 2013).

The Regeneris report attempts to also appraise the cost per job of ERDF support in England, concluding that, based on the contracted spend and outputs for live and completed projects, the median ERDF cost per gross job across all programmes is £23,000 for jobs created and £15,000 for jobs safeguarded. The report notes the extremely wide variation between median and mean for both measures, reflecting the impact of large capital intensive projects with few reported jobs. Notable variation applies also across projects with a very large interquartile range for cost per job created (£7,000 to £70,000). This masks further variations across the regions, with the larger programmes (notably Cornwall, Yorkshire and Humberside and the North West) showing the largest degree of variability in the cost per job. The mean ERDF cost per gross job created or safeguarded is £50,000. The evaluators note that these seem high benchmarks and require further analysis to understand what are driving them (Regeneris 2013).

As noted earlier, the UK Structural Funds programmes are relatively small compared to the regional economies in which they operate and there is only so much they can hope to achieve. This point was made in a report on the ERDF by the House of Commons Communities and Local Government Committee which stated 'the challenges facing regions....are profound, and ERDF can only provide part of any solution' (DCLG 2012). The mid-term assessment of the ERDF programme in Northern Ireland echoes this point when stating that given the programme size it cannot meet the strategic objective of reducing the productivity gap on its own, but it will 'contribute' (PWC 2011).

Similarly, the evaluation of the main achievements of ERDF programmes and projects from 1989 – present in 15 selected regions undertaken for DG Regio included North East England as a case study and noted that the ERDF programme had a positive influence, although it was unable to make a decisive difference or induce a wider transformation of the regional economy (Bachtler, Begg, Polverari and Charles 2013; Charles and Michie 2013). The programme was found to have 'successfully promoted a new approach to economic development based on culture and tourism and improved quality of life through community regeneration projects but without being able to affect the fundamental

interim report proposes a method for undertaking an economic impact assessment using a control group based approach and, possibly, a beneficiary survey. Two approaches to the econometric analysis of the beneficiary and control groups are proposed; difference in difference analysis and econometric analysis of post-funding performance. These are proposed for the next stage of the evaluation work (Regeneris 2013, 50).

shortcomings of the regional economy; low productivity, low entrepreneurship and innovation, high unemployment and worklessness'. In particular, the iconic cultural projects linked to urban regeneration were highlighted as having been successful in generating cultural employment as well as promoting tourism and boosting regional confidence; noted also were the centres for excellence in renewable energy and process industries, which have supported local industries and become national institutions.

The UK's 2012 Strategic Report and programme evaluations also provide specific insights on the achievements of ESF support. The Strategic Report indicates that by the end of 2011, over 3 million participants in ESF programmes had been reported for England and Gibraltar, plus over 262,000 unemployed or inactive participants were reported as having been helped into jobs. Over 128,000 participants had gained basic skills, and over 368,000 participants had gained qualifications at Level 2 or above, while over 289,000 disadvantaged young people had been helped to enter employment, education or training (HM Government 2012). In addition, a further 664,077 participants had been supported through the Scottish, Welsh and Northern Ireland ESF programmes. It is worth noting that the nature of the participant intervention in the Scottish ESF programmes proved to be very different to that envisaged, with a higher volume of participants receiving shorter, less intense interventions at a significantly lower unit cost than expected, reflecting in part the changing economic environment and client group.

Table 2.4: ERDF in England: Outputs and Results Achieved to Date (000s)

Region	Output		Results									
	SMEs assisted		SMEs with improved performance		Businesses created		Floorspace (sqm)		Gross jobs created		Gross jobs safeguarded	
	Contracted	Achieved to date	Contracted	Achieved to date	Contracted	Achieved to date	Contracted	Achieved to date	Contracted	Achieved to date	Contracted	Achieved to date
East Midlands	16.6	8.2	7.0	1.0	4.1	0.4	64.7	44.6	10.3	2.7		
East of England	7.8	3.1	0.9	0.5	0.8	0.1	14.6	4.9	3.6	0.8	2.8	1.4
London	22.4	10.4	9.1	3.6			8.4	5.2	3.4	1.0	5.6	1.9
North East	31.5	9.9	22.3	3.1	3.0	1.6	144.7	15.6	23.6	8.5	17.1	8.7
North West	51.6	23.0	27.2	4.0	18.0	12.7	773.8	63.9	59.2	24.3	40.7	11.5
South East	6.6	4.4	3.6	1.8					0.6	0.4		
South West – excluding Cornwall	11.0	5.8			0.5	0.0	2.7	1.1	5.8	1.0		
South West - Cornwall	11.1	2.4					0.0	0.0	10.9	2.0	3.9	0.1
West Midlands	12.3	6.8			4.2	0.7	46.6	4.5	17.3	7.4	6.6	4.2
Yorkshire and Humberside	4.0	2.2			6.0	1.2	137.0	27.9	20.3	9.9	21.6	31.7
Total	175.0	76.2	70.0	13.9	36.6	16.7	1192.5	167.6	155.0	58.0	98.3	59.5
Achieved as % of contracted		44%		20%		46%		14%		37%		60%

Source: Regeneris 2013

Several ESF evaluations, on the other hand, reveal a mixed picture on the impacts for UK ESF programmes. An impact analysis completed in 2011, based on data from the first half of the 2007-13 programme period, suggests that the overall impact of ESF on employment rates in England has been modest (Ainsworth *et al.* 2011). Evidence from the first half of the 2007-13 programme indicated that ESF had been successful in contributing towards reducing regional differences in employment rates and skill levels, largely driven by more provision being available in areas with low employment rates. However, the contribution of ESF employment provision to reducing regional differences was modest, because ESF provision was reasonably evenly distributed across the English regions and the impacts on Job Seeker Allowance claimants, the largest claimant group, were small.

However an evaluation of the net impacts of DWP ESF employment provision on the benefit receipt and employment rate of participants in England found ESF provision to be far more effective for Incapacity Benefit and Employment Support Allowance participants over the 52 weeks following participation (Ainsworth and Marlow 2011). The study also pointed out that ESF may have a number of other benefits to its participants and to society as a whole which were not captured in their outcome measures. For example, participants may gain skills and confidence which move them a step closer to the labour market, without resulting in a change in labour market status. Participants may attain higher paying or otherwise more desirable jobs than they would have achieved without ESF help. These studies supported the subsequent refocusing DWP ESF co-financing away from high volumes of Jobseeker's Allowance claimants towards economically inactive and more disadvantaged groups, including families with multiple problems, during the remainder of the programme.

More positive evaluation findings were found in Scotland, where a survey of ESF Priority 1 – Progressing into Employment, which targets unemployed and economically inactive people - showed that projects have largely been successful in targeting those experiencing disadvantage in the labour market. In particular they have successfully engaged young people in the NEET group, those with health problems and certain disadvantaged ethnic minority groups. The survey found that people who took part in work placements were more likely to complete their training course and to move onto a positive destination. The supported training was found to largely have been an effective route towards employment for participants (Hall Aitken 2012).

Additionality of spending

For the most part, Structural Funds have not been used in the UK to fund distinctly different forms of intervention from those which are domestically-funded and, where this is the case, there may be no reason to believe that the outcomes and impacts achieved are significantly different than for corresponding activity supported with domestic funding. ERDF, for example, has largely funded activity that was in line with the domestic policy emphasis of its time. For example, in 2000-06, large tranches of ERDF funding were devoted to the DTI clusters policy despite European Commission reservations. The 2000-06 period saw growing alignment between EU and domestic strategies in the UK. This has been strengthened in 2007-13, when programme strategies have been very closely aligned to and supported the direction of national priorities, especially in the Devolved Administrations. In 2007-13, most Structural Funds expenditure in the UK has been concentrated on productive investment, especially SME support, with broadly similar proportions being spent on infrastructure and human resources.

However, previous EPRC research (EPRC 2010) highlighted several areas where EU Structural Funds have resulted in economic development activity being expanded, innovating on, or otherwise additional to that which would have taken place in the absence of Structural Funds.

- At regional level, Structural Funds have brought a *significantly higher level of resources to the UK's Objective 1 / Convergence regions* and facilitated a more comprehensive effort towards restructuring than is likely to have been made available from any domestic initiative.
- At programme level, the larger UK ERDF programmes devoted *considerable resources to technology and the knowledge economy* during the period from the mid-1990s to the mid-2000s, as necessitated by the obligatory close focus on Lisbon Agenda priorities. This helped shift regional development priorities of UK programmes towards the promotion of innovation and technology development during that period, although there were limits to the absorption of funds based on the innovation capacity of regions.
- At project level, *project selection criteria and project appraisals require ERDF and ESF projects to demonstrate additionality*, i.e. that projects would not otherwise have taken place or would have taken place in a different, less effective way. Evaluations have found varying levels of additionality at project level. The mid-term evaluations of both the ERDF and ESF programmes in Northern Ireland, for example, found evidence of strong levels of both full and partial additionality (PWC 2011; PWC 2012).¹⁵ Previous EPRC research (EPRC 2010) found that the additionality of ERDF has been particularly evident in the case of large, complex and multi-partner projects, where key projects would not have gone ahead, or would have been smaller or developed over a longer timescale, without ERDF funding.¹⁶
- The requirement to integrate 'cross-cutting themes' in all aspects of programme design and management in the 2000-06 period *helped contribute to the mainstreaming of gender equality and environmental sustainability*, as well as the targeting of community development. However, integration varied between regions and progress was mixed and there are questions on sustainability into 2007-13.
- The increased focus on financial engineering instruments within Structural Funds programmes has led to the creation of higher numbers of individual funds (and higher levels of funding) which are intended to be revolving, i.e. the funding which is repaid can be reused within the programme area. Arguably this has *led to more*

¹⁵ The methodology of the assessment of additionality was made based on the results of a survey of beneficiaries and project managers, which asked whether the project would have been viable without programme funding, as well as on interviews with Intermediate Bodies (ERDF, in PWC 2011), and on a survey of participants, project managers and training suppliers (ESF, in PWC 2012).

¹⁶ For example, the PETEC Displays and Photonics Technology Facility and the NaREC Marine Testing Facility Project (North East); the Automotive Response Programme and Business Recovery Programme and the Low Carbon Vehicle technology Project (West Midlands); the East Kent Spatial Development Company (South East); the Combined Universities (Cornwall & Isles of Scilly); the National Composite Centre and OrbisEnergy (East Midlands); the Advanced Manufacturing Park (South Yorkshire) and the Advanced Manufacturing Research Centre (Yorkshire and the Humber).

durable interventions than conventional grant and loan schemes. However, in many cases the set-up time for such funds has been lengthy and resource intensive, and there is little evidence as yet on how well the revolving process will work.

Leverage

Data from Final Implementation Reports for the English ERDF programmes for 2000-06 showed that EU expenditure of €5.28 billion was co-financed from other sources to produce total programme spending of €15.42 billion (see Table 2.5). Thus, the ERDF programmes in England were reasonably effective in leveraging significant match funding from public and private sector sources (EPRC 2010).

The 2000-06 ERDF programmes in England were particularly successful in attracting private co-finance. A total of €3.32 billion of private sector funding was attracted, exceeding the targets set at the start of the period. In other words, the private sector contributed funding equivalent to 63 percent of the ERDF contribution. Programme managers suggested that this was principally attributable to the various venture capital and loan funds that ERDF has supported in England, along with private sector-led schemes addressing areas of market failure (such as the provision of workspace) (EPRC 2010). Similarly, in Scotland, the Scottish Co-Investment Fund had a stronger than expected leverage effect (the public co-financing rate was lower than anticipated due to Investment Partners providing higher than expected funding to the selected projects). In contrast, obtaining private sector participation proved very challenging in the Highlands and Islands Objective 1 Programme (Davies *et al.* 2007).

Turning to the 2007-13 programmes (see Table 2.6), final data is not yet available on expenditure, but looking at the planned expenditure and public and private sector contributions, it can be seen that EU expenditure of €9.5 billion is expected to be co-financed from other sources to produce total programme spending of €18.4 billion (see Table 2.6). This would also involve private sector contributions of around €523 million. The figure for private sector participation looks set to be exceeded by the actual out-turn, as for the English ERDF programmes alone, an ongoing study has found that across all the projects currently in the managing authority's monitoring system, the total contracted private sector match is £700 million (although public sector match stands only at around £1.7 billion, against the c. €2.5 billion forecast) (Regeneris 2013).

Nevertheless, despite public sector budget cuts which have made finding match funding very challenging, across all of the regional programmes public sector funds have provided the dominant source of match funding (70 percent for the ERDF programmes in England).¹⁷ Among the English programmes, the East Midlands and South East in particular have relied heavily on public sector sources of match, while the East of England and West Midlands programmes have been particularly successful in leveraging in private sector sources of match, and have achieved an almost equal split between public and private. The North West and West Midlands programmes have levered the largest amount of private sector match funding in absolute terms (£173 million and £154 million respectively) and together account for 46 percent of all of the private sector match funding

¹⁷ The ERDF programme in Northern Ireland was revised during the 2007-13 period to allow the inclusion of private sector match funding.

levered in across the English ERDF programmes as a whole (Regeneris 2013). As in 2000-06, the use of financial instruments has potential to encourage strong private sector participation; in North East England, Finance for Business North East (the JEREMIE fund) was performing strongly with strong private sector leverage (Tyler 2012b).

Table 2.5: Performance of English Objective 1 and 2 Programmes against financial plans (2000-06)

Programme	Grant		% Spent	Public Contribution		% Spent	Private Contribution		% Spent	Programme Total		% Spent
	€m Allocation	€m Expenditure		€m Allocation	€m Expenditure		€m Allocation	€m Expenditure		€m Allocation	€m Expenditure	
Objective 1												
Cornwall and the Isles of Scilly	302.5	320.1	106	327.9	339.5	104	136.7	106.9	78	791.4	766.8	97
Merseyside	930.6	890.7	95.7	1108.2	1122.7	101.3	561.4	482.6	86	2600.3	2495.9	95.9
South Yorkshire	822.7	770.7	93.7	533.6	625.7	122.3	715.9	898.5	125.5	2072.2	2321.9	
Total Objective 1	2055.8	1981.5	96.4	1969.7	2087.9	106.0	1414	1488	105.2	5463.9	5584.6	102.2
Objective 2												
East Midlands	358.8	332.9	92.7	551.2	544.8	98.8	130	94	72.3	1040	971.7	93.4
East of England	150.1	140.7	93.68	288.9	286.1	99	61.4	89.9	146	500.4	516.7	103.2
London	242.6	219.0	90.3	325.8	295.2	90.6	120.8	94.2	78.0	689.2	608.5	88.3
North East of England	610.9	525.1	85.9	806.1	834.2	103.4	299.4	238.7	79.7	1716.4	1598	93.1
North West England	836.7	765.8	91.5	893.3	975.4	109.2	197.9	551.9	278.8	1927.9	2293.1	118.9
South East England	37.8	36.2	95.8	73.2	73.5	100.4	15.8	7.2	45.6	126.8	116.9	92.2
South West of England	149.1	157.3	105	159.3	152.9	96	61.3	58.1	95	369.7	368.3	97
West Midlands	745.1	692.6	93	883.8	1001.8	113.3	435.6	437.2	100.3	2064.5	2131.6	103.2
Yorkshire and the Humber	469.2	429.4	91.5	431.7	537.1	124.4	385.8	264.8	68.6	1286.7	1231.3	95.7
Total Objective 2	3600.3	3299.0	91.6	4413.3	4701.0	106.5	1708.0	1836.0	107.5	9721.6	9836.1	101.2
Total Objective 1 and 2	5,656.1	5,280.5	93.4	6,383.0	6,788.9	106.4	3,122.0	3,324.0	106.5	15,185.5	15,420.7	101.5

Note: Figures in this table relate only to the ERDF component of programmes.

Source: Final Programme Reports, March 2010.

Table 2.6: UK Operational Programme funding statistics, 2007-13 (€ million)

	EU (a)	National (b) (=(c)+(d))	Indicative breakdown of national		Total (e) = (a)+(b)
			National public (c)	National private (d)	
England					
North East ERDF OP	375.7	375.7	338.1	37.6	751.3
North West ERDF OP	755.7	755.7	711.6	44.1	1,511.5
Yorkshire & Humber ERDF OP	583.6	583.6	583.6	-	1,167.1
East Midlands ERDF OP	268.5	268.5	228.2	40.23	536.9
West Midlands ERDF OP	399.9	399.9	317.1	82.7	799.8
East of England ERDF OP	110.9	164.2	117.7	46.5	275.24
London ERDF OP	181.9	200.6	162.2	38.4	382.5
South East ERDF OP	23.7	23.7	23.7	-	47.4
South West ERDF OP	124.7	124.7	124.7	-	249.3
Cornwall and Isles of Scilly ERDF OP	458.1	211.4	211.4	-	669.4
England ESF OP	3,089.9	2,958.9	2,958.9	-	6,048.9
Wales					
East Wales ERDF OP	72.4	87.5	69.1	18.4	159.9
East Wales ESF OP	63.6	94.7	78.5	16.2	158.3
West Wales and the Valleys ERDF OP	1,250.4	925.2	727.8	197.4	2,175.6
West Wales and the Valleys ESF OP	833.6	461.5	379.1	82.4	1,295.1
Scotland					
Highlands & Islands ERDF OP	121.9	169.5	169.5	-	291.3
Highlands & Islands ESF OP	52.1	52.1	52.1	-	104.3
Lowlands & Uplands ERDF OP	375.9	533.8	533.8	-	909.7
Lowlands & Uplands ESF OP	269.9	328.5	328.5	-	598.4
Northern Ireland					
NI ERDF OP	306.8	306.8	306.8	-	613.7
NI ESF OP	165.7	248.6	248.6	-	414.4
Overseas					
Gibraltar ERDF OP	5.8	5.8	4.3	1.5	11.6
United Kingdom	9,491.4	8,881.6	8,358.6	523.0	18,373.1

Source: EPRC calculations based on data from ONS (2012, 2013) Regional data: Summary of LFS headline indicators.

Added value

Beyond the outputs and results generated by Structural Funds programmes, there is evidence to suggest that implementation of EU Structural Funds has had a wider influence on the delivery of economic development policy in the UK. This has been through the longer planning period allowed by the Structural Funds programme cycle, the benefits of the partnership approach to economic development, and the enhanced capacity to respond to regional needs and crisis situations.

The *seven-year planning horizon transcends short-term funding cycles* and introduces an element of stability and transparency in financial planning, while allowing (through evaluation) a mechanism for modifying the content or direction of programmes to reflect changing policy or socio-economic environments.

Several pieces of academic research have credited the Structural Funds with having had a significant effect on governance in the United Kingdom by contributing to enhanced regional-level government intervention and supporting the promotion of partnership-based, collaborative working amongst regional development actors (Bache and Chapman, 2008; Bache and Conzelmann 2008; Marshall 2005; Burch and Gomez 2002). In Wales, the emphasis on partnership working (in 2000-06) was judged by evaluators to be '[the programme's] most significant, positive and potentially lasting feature' (GSR and Welsh Government 2012). Evidence on this issue is also available from some Final Programme Reports and evaluation studies (EPRC 2010).

There is evidence that the Structural Funds over time *enhanced capacity for developing strategic responses to regional development problems* (EPRC 2010). In both the 2000-06 and 2007-13 periods, several programmes adopted an approach to identify and then fund projects of strategic significance, thereby shifting from a position of funding large numbers of small projects to a 'fewer, larger' agenda (e.g. West Midlands and North East Objective 2 ERDF programmes in 2000-06 and all ERDF and ESF programmes in Wales in 2007-13). In Scotland, an evaluation of the delivery of ESF Priority 1 and ERDF Priority 3 employability support through the Community Planning Partnerships found that the use of the European funds had stimulated more strategic behaviour at a local level (Blake Stevenson 2011).

Linked to the ability to develop strategic responses to regional needs is *the ability of programmes to respond to crisis events*. The 2007-13 programmes have taken various emergency steps to alleviate the effects of the economic downturn. According to a recent report, there is much evidence to suggest that 'in the worst recession for over eighty years that ERDF has enabled the momentum of economic regeneration to be maintained in the more disadvantaged regions across the United Kingdom. The AIRs indicate that ERDF projects are building much by way of capacity by supporting R&D and innovation. A very significant part of the SME base is receiving some form of assistance and advice and at a time of tight finance valuable gains are being made' (Tyler 2013).

One example in 2008 was the launch by North East of England programme of a £7 million ERDF call for bids that were 'specifically focused on projects which can support regional businesses to retain their competitive position and safeguard jobs in the current economic downturn' (Regional partners e-bulletin, November 2008). In May 2012, Scottish Ministers announced that remaining unspent Structural Funds would be focused on supporting youth

employment, in particular through a package of measures that would help SMEs employ young people. In Northern Ireland, the mid-term evaluation of the ERDF programme noted that the economic crisis and domestic budget cuts have increased the importance and relevance of the programme, and the ESF programme mid-term evaluation reported improved 'soft outcomes' e.g. increased confidence about the future (PWC 2012; PWC 2011). Examples in previous periods include the swift action taken to refocus the West Midlands programme following the closure of the Rover and Peugeot car plants (during the 2000-06 period) which stood out as an exemplar across all the English programmes. On a smaller scale, several English programmes, particularly the South West and North East, developed packages of support for businesses that had been affected by foot-and-mouth disease in 2001.

Recent evaluations suggest that in the 2007-13 period, Structural Funds have played an important role in *reaching groups and individuals not served by mainstream support*. In Wales, for example, recent evaluation reports identified the JEREMIE projects which are supporting businesses that banks would not support, especially in relation to early stage product / process development, as well as funding for universities' commercialisation activities (Welsh Government 2013). Several evaluations of the England and Gibraltar ESF OP 2007-13 found that ESF provision appeared to combine effectively with mainstream programmes and delivered significant added value by enhancing mainstream activity, increasing the quantity and range of support available, offering different approaches and support, and accessing different target groups (although the impacts for some claimants were larger than for others) (Ainsworth and Marlow 2011; Atkinson 2011). A further report published in 2013 found that provision under Priorities 1 and 4 was widely perceived by interviewees to be adding significant value to mainstream employability and skills activity. Such added value involved boosting or adding volume to mainstream activity, offering different and distinctive forms of provision, and/or filling perceived 'gaps' in the mainstream 'offer' (Atkinson 2013).

A 2013 evaluation has noted, however, that while ESF was generally recognised as representing a major investment in employability support and skills development, there was some concern as to the extent to which the fund and the activities it supports are visible in the context of particular areas or communities, with a focus on individuals rather than communities or areas, and that the focus on relatively large contracts was leading to the delivery of generic provision. The type of ESF activity being delivered was also a concern relating to how much added value it offered, especially during the second half of the programme period. The decision of DWP to focus on supporting 'families with multiple problems', for example, was seen as having clear potential added value relative to mainstream employability provision, but few direct local impacts were identified. The added value of Skills Funding Agency provision on skills development was also questioned, with some concern that this simply added volume to mainstream activity, rather than achieving the distinctive or different contributions ESF was seen as making in previous programming periods. The limited ability to develop activity to support higher level skills development in the current period was also criticised (Ecorys 2013).

As well as the potentially positive benefits discussed above, evaluations have also criticised various elements of Structural Funds implementation, including the need to set up parallel sets of administrative and monitoring systems; the complexity of the audit trail, with associated unrealistic expectations of administrative perfection and consequent disincentives to risk-taking; and regulatory restrictions which can render ERDF a relatively

unattractive source of funding, particularly to the private sector (EPRC 2010; Fraser Associates 2010).

Conclusions

The performance of the UK assisted areas over the past two Structural Funds programme periods has been mixed. While the UK as a whole has comparatively well in terms of the main indicators of economic wellbeing, significant regional disparities remain and figures for GVA per head are lower than they were in 2000 for all parts of the UK except London, South East England and Scotland.

The economic crisis and recession meant that the 2007-13 Structural Funds programmes, which represented only a tiny proportion of UK GDP (around 0.1 percent) and now covered the whole of the country, were operating in a dramatically changed environment from that which was envisaged when the programmes were drawn up. While the requirement to pursue Lisbon Agenda and then Europe 2020 priorities meant that the Structural Funds programmes in the UK were generally reinforcing the direction of UK policies, they could make little more than a *contribution* to attaining policy objectives.

Measuring this contribution is well known to be fraught with difficulties. Variable quality of monitoring data, different interpretations of indicators across regions and countries, different monitoring systems in use across the country and the impossibility of aggregating data was added to the wider methodological difficulties in assessing the impact and effects of Structural Funds expenditure more generally.

Data on the impact of Structural Funds expenditure in the UK are limited, but ex post evaluation of the 2000-06 period revealed that interventions were associated with significant numbers of new and safeguarded jobs, land redevelopment, increases in SME turnover, innovation projects, training and skills development, the creation of community enterprises and other results. The 2007-13 period has not yet been assessed ex post, but interim and other evaluation work also reveals significant achievements despite a challenging economic climate, although overall impact on economic performance may have been modest. Public sector funds have provided the dominant course of match funding and this has become increasingly challenging as the public sector budget cuts have taken hold.

For the most part, Structural Funds have been used in the UK to co-fund domestic policies and programmes. Nevertheless, research has highlighted several areas where EU Structural Funds have resulted in economic development activity being expanded, innovating on, or otherwise additional to that which would have taken place in the absence of Structural Funds. The programmes have also entailed a considerable degree of leverage of other funding sources, especially private funds.

Beyond the outputs and results generated by Structural Funds programmes, implementation of EU Structural Funds has had a valuable influence on the delivery of economic development policy in the UK, through the longer planning period allowed by the Structural Funds programme cycle, the benefits of the partnership approach to economic development, and an enhanced capacity to respond to regional needs and crisis situations.

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Assessment of the value for money of Cohesion Policy

The third question for this study is whether all parts of Cohesion policy provide equal value for money, drawing on evidence from the UK and across the EU. Value for money is interpreted here as the effectiveness and efficiency of the Funds relative to the resources deployed.

Value for money in Cohesion policy

Research on the value for money (VFM) of Cohesion policy is limited, mostly confined to aspects of the work of the European Court of Auditors (ECA) and national audit offices. Evaluation work has by and large focused on achievements, effectiveness and lessons learnt, rather than on value for money. Attempts to appraise and compare the VFM of different Cohesion policy investments across types of interventions, geographical areas, or relative to domestic spending programmes have been hampered by data and methodological limitations, and by differing interpretations of the concept of ‘value for money’.

The UK National Audit Office defines good value for money as ‘the optimal use of resources to achieve the intended outcomes’, where “Optimal” means the most desirable possible given expressed or implied restrictions or constraints’.¹⁸ In the NAO’s definition, *value for money is synonymous with cost-effectiveness* and is appraised by considering: *economy* (i.e. the minimisation of the resources spent), *efficiency* (the relationship between the output from goods or services and the resources used to produce them) and *effectiveness* (the achievement of the planned effects and objectives, MEANS 1999).¹⁹ However, applying this definition to make value judgements on public policy is difficult. Arguably, making judgements on VFM needs to take account also of utility – the wider benefits of all stakeholders. There are also significant constraints on comparing different public policy interventions (Regeneris, 2013) and even more so when comparing interventions or projects across different regions or countries.

Taking account of these difficulties, the following section, by reviewing evidence from audits and evaluations of Cohesion policy (in the UK and across the EU), addresses three questions: is the VFM of Cohesion policy greater in certain fields than in others? Is the VFM of similar interventions in the context of Cohesion policy higher in certain spheres than in others? And how does the value for money of different types of EU-funded interventions compare with that of similar interventions funded only with domestic sources?

¹⁸ <http://www.nao.org.uk/successful-commissioning/successful-commissioning-home/general-principles/value-for-money/>.

¹⁹ <http://www.nao.org.uk/successful-commissioning/successful-commissioning-home/general-principles/value-for-money/assessing-value-for-money/>. In some cases, e.g. for certain types of public services, equity is also considered, i.e. ‘the extent to which services are available to and reach all people that they are intended’.

EU-wide appraisals of value for money in selected fields

Some insights on the VFM of Cohesion policy from a comparative perspective can be found in evaluation studies undertaken for the European Commission (DG Regio) and in reports by the European Court of Auditors.

Major infrastructure projects

The ex post evaluation of 2000-06 ERDF programmes undertaken for DG Regio in 2009/2010 appraised the efficiency of 66 major infrastructure projects in 11 Member States in the fields of roads, railways, urban transport systems, water infrastructure (supply and treatment) and energy (RGL Forensics *et al.* 2009). Only one project was in the UK, in the field of energy.

These investments were generally characterised by delays and cost overruns. Around three quarters of projects met delays, with an average delay of more than one quarter of the time initially forecast, and more than half of the projects overran their costs, with an average overrun of about one fifth above the initial financial forecast (Ward and Wolleb 2010). Crucially, however, the evaluation concluded that:

‘These figures ... are not unusual and are very much in line with the incidence and scale of delays and cost overruns of major projects funded from national sources across the EU or in other parts of the world’. (Ward and Wolleb 2010, 88).

Nevertheless, there were differences between the countries surveyed. Cost overruns and delays were particularly acute in Poland but cost overruns were not an issue in Germany. Different domestic administrative and legal approaches, and variations in institutional capacity, are clearly explanatory factors.

There were also differences across the five thematic fields covered by the research. The urban transport system projects emerged as the most problematic, with a particularly high degree of cost escalation (+45.4 percent) compared to an average across sectors of 21.2 percent (RGL Forensics *et al.* 2009, 172). However, the evaluation noted that comparisons between different projects in terms of unit costs would entail a detailed analysis of all the various determinants of such costs and the consideration of the specificities of each project (e.g. the type of terrain etc.), which was not available to the evaluators. Thus variation in performance in different fields is not simply an indicator of the higher or lower administrative capacity of project holders and public administrations in a given context.

More generally, and fundamentally, the evaluation noted the scarcity of reliable and detailed information on major infrastructure projects, particularly the lack of reliable and comparable data on unit costs. Such data would be needed to assess the relative cost-effectiveness of these projects.

Table 3.1: Cost overruns and time delays in the implementation of major infrastructure projects co-funded by the ERDF in the 2000-06 period

%(number of projects)	Rail	Road	Urban transport	Water	Energy	Weighted average
COST OVERRUNS						
Germany	-4.23% (6)	-10.0%(3)				-6.2%
Spain	12.8% (6)	30.7% (1)		17.4% (2)		15.8%
France			32.9% (1)			32.9%
UK					110.7% (1)	110.7%
Greece	74.3% (2)	19.7% (8)	20.1% (2)		0.0% (1)	26.6%
Ireland		2.1% (5)	74.1% (1)			14.1%
Italy	62.4% (5)	-5.0% (2)		-0.9% (1)		37.6%
Poland		19.7% (2)	80.9% (2)			50.3%
Portugal			9.0% (1)		3.3% (4)	4.4%
Weighted average by MS	26.9%	9.4%	45.4%	11.3%	20.7%	21.2%
TIME DELAYS						
Germany	40.2% (6)	4.7% (3)				28.4%
Spain	15.3% (6)	27.3% (1)		55.9% (2)		25.7%
France			4.9% (1)			4.9%
UK					0.0% (1)	0.0%
Greece	24.4% (2)	17.8% (7)	13.2% (2)		12.6% (1)	17.7%
Ireland		9.0% (5)	52.2% (1)			16.2%
Italy				88.4% (1)		88.4%
Poland	5.9% (1)		2.7% (2)			3.8%
Portugal			258.3% (1)		41.5% (4)	84.9%
Weighted average by MS	25.8%	13.2%	49.6%	66.7%	29.8%	26.2%

Source: RGL Forensics *et al.* 2009, pp. 172-713.

Major projects for productive investments

The same evaluation also reviewed 30 major projects that provided support to firms - including one in the United Kingdom – and focused in particular the cost per job created as a result of the investment. However, the results were inconclusive due to the lack of reliable data on job creation and the difficulty in comparing different types of projects and productive activities. The differences in thematic focus and types of instrument used in the aid schemes surveyed, as well as the structural differences between firms and sectors, meant that the aid schemes were not comparable. Estimates of costs per job, moreover, and of ERDF funding per job created are affected by the overall configuration of the funding of individual projects (where percentages of domestic and private co-financing can vary significantly). The report argued that

‘while comparisons between estimates of job creation and ‘cost per job created’ with the outturn values for these indicators might be useful on a project-by-project basis,

comparisons between the values of these indicators across projects are unlikely to be meaningful without appropriate adjustments for different industry circumstances. In our view, it would be more appropriate to evaluate these projects using a wider cost benefit approach and then compare comparative efficiency using benefit-cost ratios' (RGL Forensics *et al.* 2009, 13)'.

Roads

Cohesion policy co-funded infrastructure investments for roads were also the subject of a recent ECA report (ECA 2013). The report covered 24 ERDF and Cohesion Fund projects, totalling over €3 billion, which were implemented in the period from 2000 to 2013 in Germany, Greece, Poland and Spain. The aim of the audit was "to assess whether they achieved their objectives at a reasonable cost".

The evidence was not encouraging: the projects audited were found to have achieved the intended results only in part and at a cost that could have been lower. The audit found an average cost increase of 23 percent and a medium delay of 41 percent compared to the initial deadline agreed with the constructors (c. 9 months). The report's main conclusions identified the following issues.

- **Measurement and achievement of outcomes.** Most projects were implemented with clear ex-ante indication of expected outcomes (21 out of 24) and a significant proportion also specified the expected economic return (e.g. new jobs linked to the construction project, plus new long term jobs created in the region). Projects tended to have four overarching goals: to improve road safety, to reduce travelling times, to generate an economic return and to promote economic development. The first two goals were generally achieved. However, of the 11 projects that planned to reduce travelling times, seven only partially achieved their targets. The wider impacts on economic development could not be assessed due to the lack of appropriate indicators and reporting systems which focused primarily on financial and output information.
- **Use of Cost-Benefit Analysis** Only the major projects, which had an obligation to carry out cost-benefit analysis (CBA), used this analytical tool; the remaining five projects did not undertake such an assessment. In 14 out of 19 cases, benefits (e.g. expected usage) were found to be lower than forecast, whilst costs were on average 26 percent higher than planned in the projects feasibility studies. As a result, economic viability was 'significantly lower' than planned for half of the projects. Of the 24 surveyed projects, only seven were concluded within the expenditure limits forecast (five in Poland and one each in Germany and Spain).²⁰
- **Costs.** The ECA assessment of costs found that:

²⁰ These findings echo the findings of a more recent evaluation of the long-term achievements of Cohesion policy, which found that the utility of investments in cultural and transport infrastructure (not just roads) was often hampered by an inadequate appreciation and planning of the running and maintenance costs required after completion, resulting in an underuse or even non-utilisation of the infrastructure built, or in it requiring further, unplanned investments after completion (Bachtler *et al* 2013).

- Costs were highest in Poland and Spain and lowest in Germany. This applied to all measures of costs – total cost, construction cost, roadway construction cost – although roadway construction cost is considered to be the best measure for international comparisons.²¹ Cost per user also varied, with the highest figures found in Spain, and the lowest in Germany.
 - Expressways were built at lower costs than motorways, which is in line with the technical requirements associated with these types of roads. However, in some cases motorways were built where express roads would have been adequate, meaning that value for money was lower than it could have been.
 - VFM was reduced because the best possible price was not achieved in all cases. This applied particularly to projects in Spain and Greece and was linked to procedural aspects of the bidding process (notably the use of a mathematical formula that excluded companies making low offers).
 - Other cost-related differences between the countries audited related to specific cost items, e.g. noise reduction barriers due to more stringent legislation in some countries than others, which however does not necessarily mean that the value for money of road investments in these contexts was lower (at least if one considers the highest reduced environmental impact as a benefit).
- **Keeping to schedule.** The lowest average delays were found in Poland (16.5 percent), and the highest in Germany (59.5 percent) and Greece (57 percent).

Overall, the ECA report highlighted weaknesses in the planning and implementation of road projects, which have had an impact on value for money. It provides evidence of the contexts in which VFM was higher and why. The report, however, does not compare EU-co-funded investments with investments realised solely with domestic resources.

Seaports

In 2012, the European Court of Auditors appraised the effectiveness of Cohesion policy funded seaport investments (ECA, 2012). Its sample comprised the largest recipients of this type of investment and therefore excluded projects in the United Kingdom. The ECA appraised 27 seaport projects, including four major projects implemented in the 2000-06 period with support from the ERDF and the Cohesion Fund in nine regions of four Member States: Spain, Greece, Italy and France. It concluded that two thirds of projects had clear transport policy objectives, but only 41 percent were effective in meeting these objectives (11 of the 27 projects). Further, five of the largest projects audited – cumulatively equal to almost half of the amount of funding audited – would ‘need considerable further investment before they can be put into effective use’ (ECA, 2012, 26). There were considerable delays in the realisation of the projects, with only 11 having been completed on time. Perhaps more significantly, ‘none of the regions visited had a long-term port development plan in place and needs assessments to support the selection of seaport infrastructure projects

²¹ As it excludes any geographical and nature-related elements, as well as differences in project design with regards to engineering aspects, that would lead to unavoidable increases in the cost of the works.

had not been carried out'. Effectiveness was hindered by: the lack of a pool of suitable projects; the use of projects that had already been funded with domestic resources (with obvious impact also on project additionality); poor monitoring and weak supervision of results.

UK evidence for the VFM of Cohesion policy

There is limited evidence on value for money in the evaluations of the UK ERDF programmes in 2007-13. However, one of the main goals of the Regeneris study (2013) was to 'identify the effectiveness of the range of interventions pursued and the value for money these provide' (p. 1). The interim report of the evaluation – the only one available thus far – notes that, in reviewing the individual mid-term evaluations of the English 2007-13 ERDF programmes, 'none of the evaluations were used to assess value for money ... Rather they were focussed on trying to gross up the potential overall impact of the programme' (Regeneris 2013, 4). Further, the report argues that, for England, 'whether ERDF delivers value for money is an almost meaningless question', as the ERDF 'is only as effective as the types of projects programmes chose to support', given that the Fund match-funds domestic schemes (Regeneris 2013, 41).²²

The VFM of Cohesion policy in the UK was also the subject of a recent House of Commons Committee report (by the Communities and Local Government Committee) but concluded that there was a lack of evidence on the VMF of ERDF. The report recommended that this aspect of Cohesion policy expenditure should be evaluated by the Government, together with a more detailed understanding of what the ERDF has achieved in each region (House of Commons, CLGC, 2012).

Administrative costs

Cohesion policy has often been criticised on value for money grounds for the burdensome nature of its administrative procedures - in relation, for instance, to the tasks of financial accounting, project selection, monitoring, reporting and, especially, auditing - which are due to the complexity of rules governing the funds and to the policy's multi-level nature and shared management approach. As responses to both EU and UK consultations almost universally illustrate, the Cohesion policy administrative procedures are regarded as being too onerous for both programme managers/administrators and project holders, with the consequence of increasing the relative cost of investments and thus reducing cost-effectiveness.

There is only one systematic, comparative assessment of the actual administrative workload and costs of the policy. It was undertaken in 2010 by SWEKO for the European Commission (SWEKO 2010). This study provides useful estimates of the administrative costs to public administrations in the Member States (and, to a more limited degree, programme beneficiaries) by task and country, and it also assesses the reasons for the

²² One of the recommendations of the Regeneris report is that, for the future, the UK government should establish 'a central function/service to provide on-going advice on what works, benchmarks and assessing value for money for the LEPs (and potentially supporting the Local Growth Teams in this regard)' (Regeneris 2013, 9). It also recommends the development of 'basic unit cost information to help understand and assess value for money in proposed investments' and a stronger emphasis on establishing and regularly monitoring performance milestones (Regeneris 2013, 37).

cost variations found. The study places the policy's average total administrative cost in the region of 3-4 percent of total eligible expenditure (SWECO 2010, 8).

Whilst noting the impossibility of drawing clear-cut conclusions on the administrative costs of Cohesion policy compared with those of other similar spending programmes, 'due to both data availability and deviating definitions' (SWECO 2010, 67), the report compared the administrative costs of Cohesion policy with those of selected international bodies in charge of administering development programmes - such as the World Bank, European Bank for Reconstruction and Development, and some private charitable foundations. It concluded that the indicative costs associated with the delivery of the ERDF and the Cohesion Fund appeared on the whole to be in line with (or even lower than) the costs of other comparable organisations:

'the EBRD has a comparable level of administrative costs to EU Cohesion Policy. The other cases identified have considerably higher figures which are up to two or three times as high as the one for EU Cohesion policy. Although these figures cannot be used for a direct comparison of numbers, they clearly indicate that EU ERDF and Cohesion Fund do not involve particularly high administrative costs ' (SWECO 2010, 67).

At UK level, a 2007 House of Lords inquiry found that the total annual administrative costs to the public sector in England and the devolved administrations was in the region of '£28 million per year, against the United Kingdom's current allocation of Structural Funds of approximately €1.5 billion (£1.2 billion) per annum' (i.e. 2.3 percent). The inquiry report dismissed 'witnesses' claims that the regional policies are beset by a costly bureaucracy' (House of Lords 2008, 36-37). The report concluded that 'the cost of administering Structural Funds in the richer countries is not by itself a compelling argument in favour of ending Structural Fund programmes in richer Member States' and that 'the evidence received did not demonstrate that the cost of administration, relative to the total size of the budget, is significant in the United Kingdom' (House of Lords 2007, 39).

Conclusions

In the field of Cohesion policy, thorough appraisals of value for money have been carried out only to a very limited degree, mostly by the European Court of Auditors (ECA) or by the European Commission through its evaluation work. Very little specific evidence is available on the value for money of UK ERDF programmes.

Where value for money assessments have been attempted, they have been hindered by methodological and data limitations. In particular, there are methodological difficulties associated with variations in contextual factors between countries and regions, relating, for example to geography in the case of infrastructure projects, differences in wage and land costs, and cyclical and structural disparities in regional economic performance (which e.g. may shape effectiveness indicators such as jobs created). These constraints, along with definitional differences, make it virtually impossible to draw reliable comparative conclusions on the value for money of different areas of spending or across countries/regions.

Notwithstanding these limitations, the sources reviewed provide some limited insights on the value for money of Cohesion policy, both in the EU as a whole and specifically in the UK.

First, delays and cost overruns have tended to affect negatively the VFM of major infrastructure co-funded investments (roads, railways, urban transport systems, water infrastructure, energy). However, the extent of these delays and cost escalation is considered to be 'in line with the incidence and scale of delays and cost overruns of major projects funded from national sources across the EU or in other parts of the world' (Ward and Wolleb 2010, 88).

Delays and cost overruns were also found in recent audits of Cohesion-policy co-funded projects in the fields of roads and seaports (including, but not only, major projects). In the field of roads, projects achieved the intended results only in part and at a cost that could have been lower. In the field of seaport infrastructure, effectiveness and VFM were reduced by inadequate costing approaches, the co-financing of projects that had already been funded with domestic resources, and the poor monitoring and supervision of results.

No comparatively meaningful evidence is available on the VFM of aid schemes for business projects or other forms of intervention provided under UK Structural Funds programmes.

Cohesion policy has often been criticised on value for money grounds for the burdensome nature of its administrative procedures. However, the only ever systematic study on this subject concluded that the ERDF and Cohesion Fund do not involve particularly high administrative costs, compared to other similar programmes. In the UK, a 2007 House of Lords inquiry found that the total annual administrative costs to the public sector in England and the devolved administrations represented around 2.3 percent of total financial allocations, which it did not regard as costly bureaucracy.

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Assessment of international benefits of the Funds to the UK

The United Kingdom may benefit as a result of Cohesion policy in other Member States, such as UK companies winning contracts to implement EU funded projects or the additional trade and investment with the net recipient countries as a result of increased growth. This chapter assesses the evidence for the international benefits of Cohesion policy to the UK.

Research on how Cohesion policy funding spent elsewhere can benefit a specific country is limited. Studies conducted between 2009 and 2011 have attempted to shed light on this issue. The first focused on the 2000-06 programme period and on calculating the economic returns to the net payer countries from Cohesion policy funding in 14 EU net recipient Member States (Bradley, Untiedt and Zaleski 2009). A second set of studies examined Cohesion policy funding over the 2004-15 period in Poland and in all four Visegrád countries (Czech Republic, Hungary, Poland and Slovakia) and the extent of economic returns to the EU15 (Institute for Structural Research, 2009 2011).

Benefits to net payer countries from Cohesion policy expenditure in 2000-06

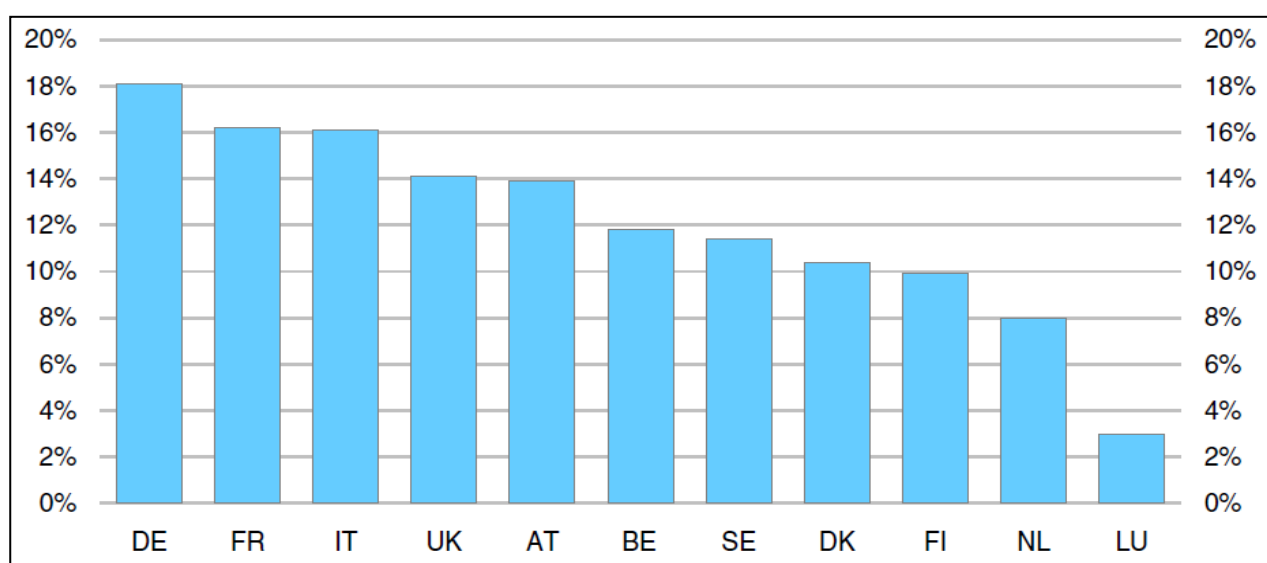
In 2009, a study carried out for the European Parliament looked at the economic returns of Cohesion policy (ERDF and Cohesion Fund) in the 2000-06 programme period to both 'net recipient' and 'net payer' countries to the EU budget. Utilising the HERMIN model,²³ it showed that Cohesion policy entails economic benefits for the net payer Member States resulting from expanded trade. However, such returns are comparatively small, due to the small relative size of the EU budget compared to the Member States' own budgets. The study concluded that Cohesion policy has re-distributional effects that result in a modest net transfer of resources from the net payer to the net beneficiary countries of the EU budget.

Specifically, the study examined spillover effects caused by increased exports of net payer countries to net recipient countries, and assessed these in relation to the net contribution of the net payer countries. Although there are positive trade stimulation impacts emanating from the recipient countries, these are not able to offset the additional contributions to the EU budget necessary for the policy. Further, some countries benefit more than others. Germany, France, Italy and the United Kingdom are estimated to have a positive net impact, whilst the Netherlands and Luxembourg experience the largest, albeit still rather modest, net negative impact. This can be explained, on the one hand, by the relative size of the contributions to the EU budget and, on the other, by the different trade relations between net payer and net beneficiary countries.

²³ As discussed in an earlier chapter of this report – 'Assessing effectiveness', Hermin is a model used to analyse the impact of EU Structural and Cohesion Funds.

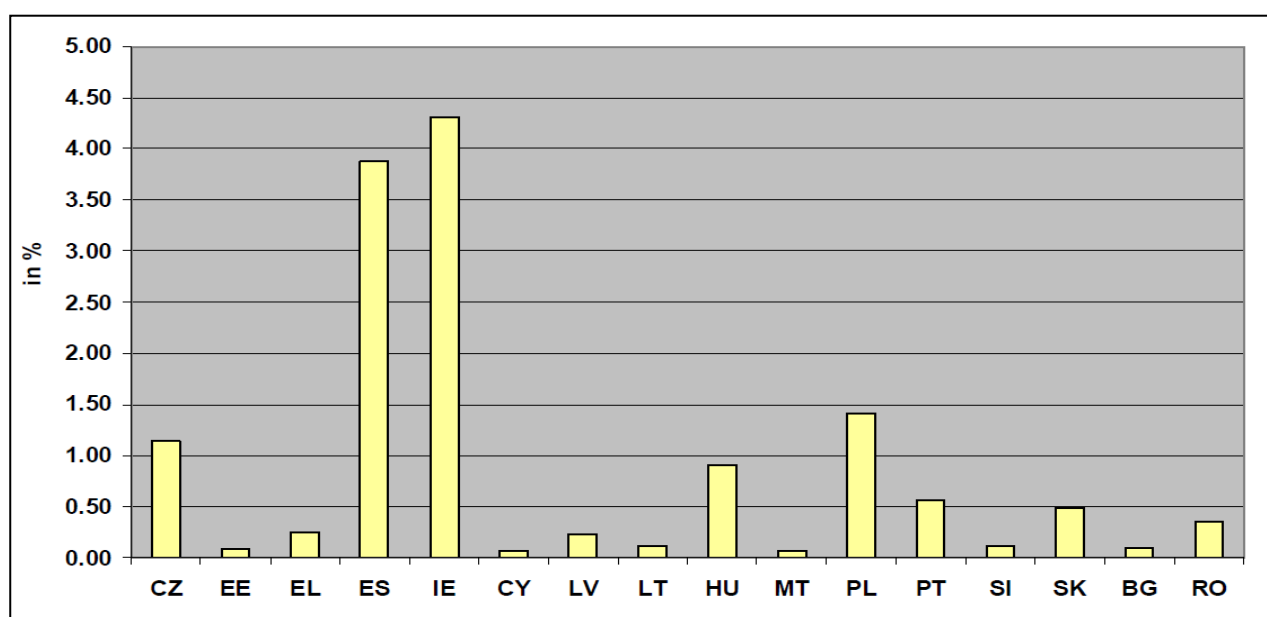
Figure 4.1 shows that the shares of exports to net recipient Member States vary. They are highest in Germany at 18 percent. The UK has a share of 14 percent of exports going to Cohesion policy net beneficiary countries, benefiting from its relatively high trade with the two net beneficiaries Ireland and Spain (see Figure 4.2). An important factor is the geographical location of a country, which favours countries with physical proximity to net recipients, e.g. Germany, Italy and Austria have benefited most as a result of their borders to Member States who joined the EU in 2004.

Figure 4.1: Share of main Cohesion policy beneficiary countries in total exports of net payer countries in 2008, % of total exports



Source: Eurostat, COMEXT database in European Commission (2010), pp. 253-4.

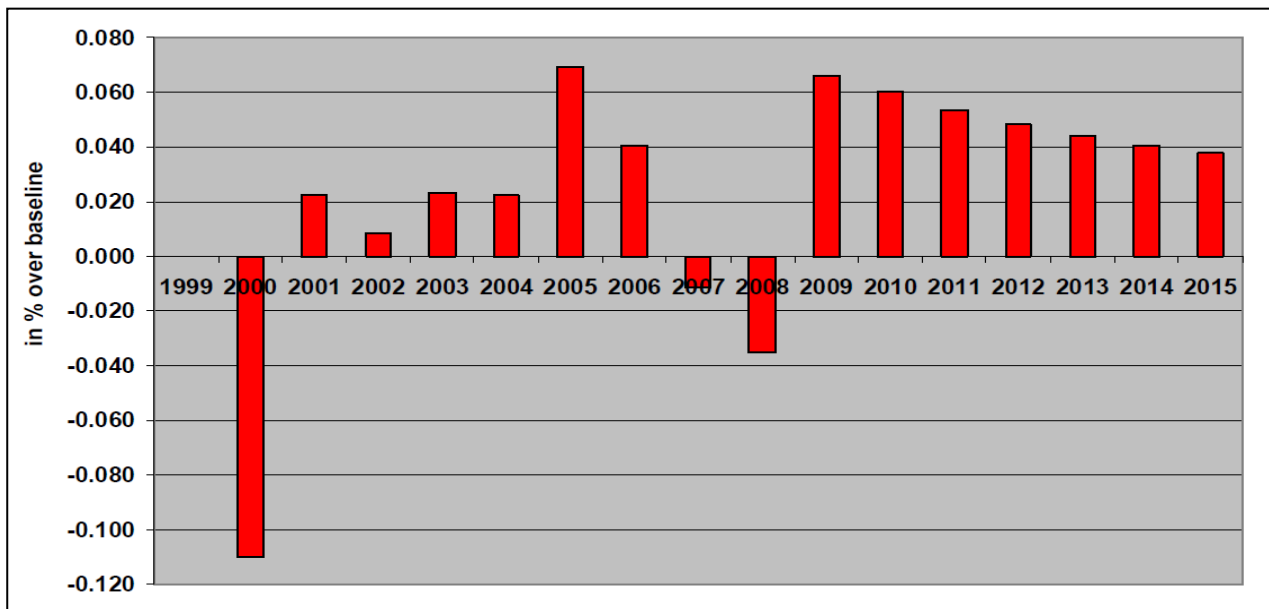
Figure 4.2: UK exports to net recipient countries, 2007



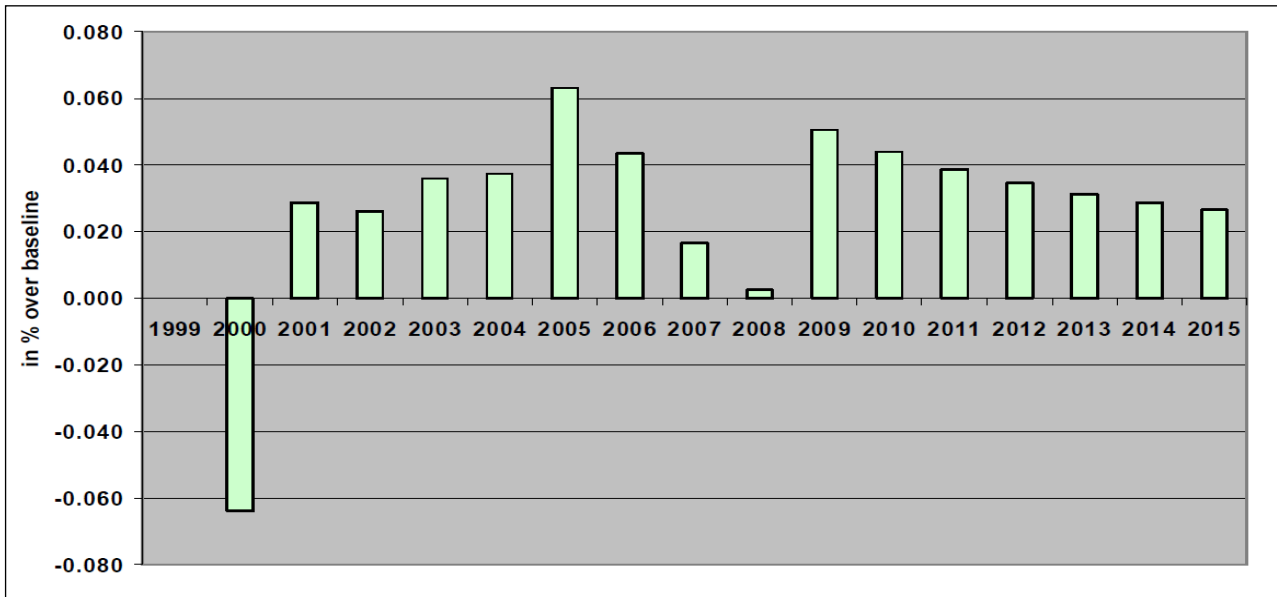
Source: Bradley, Untiedt and Zaleski (2009), p. 107.

The study also examined the impacts that the additional funding necessary to finance the EU budget has on each net payer country's GDP and employment. In terms of these indicators, some countries appear to suffer larger 'net' negative shocks than others. This is the case in the Netherlands and Luxembourg, where these shocks are the result of higher budget contributions and lower spillover benefits for their exports from the recipient countries. At the other end of the scale are France and the UK. France is the payer Member State that benefits the most in terms of the impact on its GDP and employment, due to its relatively small budget contribution as a percentage of GDP and the extent of its trades with Spain, the largest recipient of Cohesion policy funding in 2000-06. Similarly, the UK had relatively low budget contributions, but strong trade relations with the net recipients Ireland and Spain. This meant that, for the UK, the impact on both GDP and employment was found to be largely positive (see Figure 4.3 and Figure 4.4).

Figure 4.3: Impact on UK GDP of financing the UK's EU budget contribution

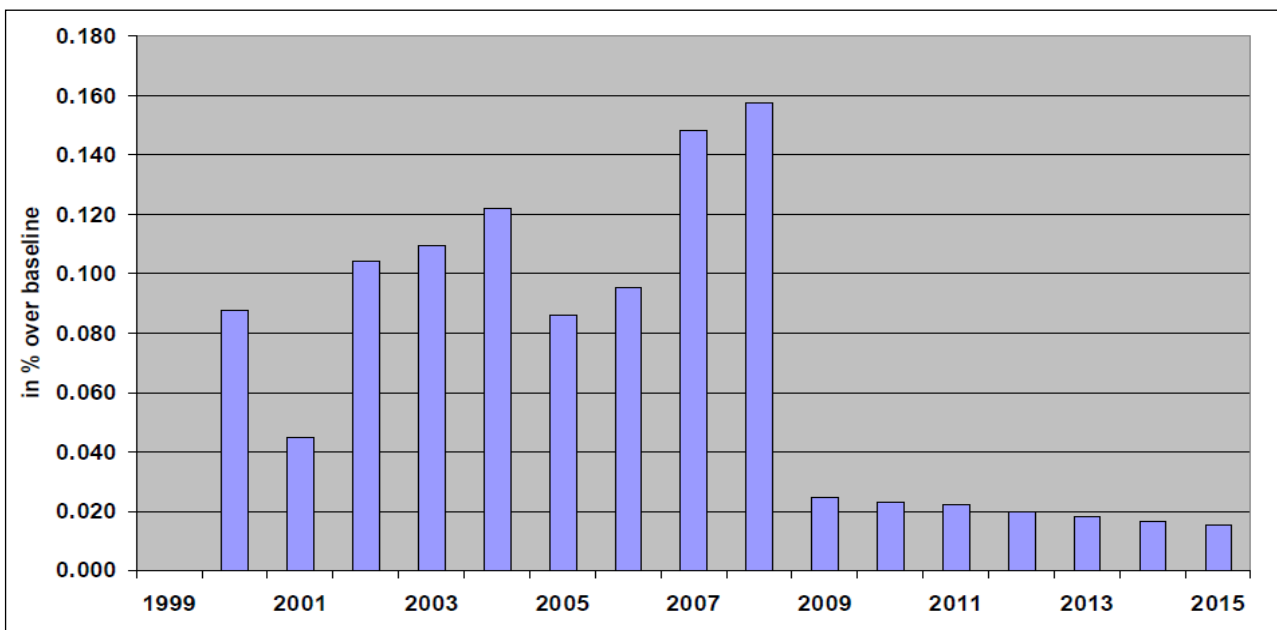


Source: Bradley, Untiedt and Zaleski (2009), p. 107.

Figure 4.4: Impact on UK employment of financing the UK's EU budget contribution

Source: Bradley, Untiedt and Zaleski (2009), p. 107.

The study also considered the impact on cash flows, i.e. net trade balance effects, public sector borrowing requirements and corporate profits (see example in Figure 4.5). However, given the small size of these effects (less than 0.2 percent over baseline), the results are considered to be within any margin of error of the HERMIN model and hence not further interpreted.

Figure 4.5: Impact on UK net trade balance of financing the UK's EU budget contribution

Source: Bradley, Untiedt and Zaleski (2009), p. 119.

Finally, the study tried to establish the micro impact of Cohesion policy by looking at the share of major public procurement contracts that were awarded to enterprises from net payer countries. However, research findings were inconclusive, due to the fact that data on individual contractors are not recorded or published, as these are not regarded as beneficiaries of Cohesion policy. Also, contracts are awarded by bodies at many different levels of national and local administrations, and sub-contracting further complicates the potential usefulness of data.

Benefits to the EU15 from Cohesion policy expenditure in 2004-15

In 2009, the Polish Ministry of Regional Development commissioned an evaluation of benefits gained by the EU15 countries as a result of the implementation of Cohesion policy in Poland from its accession to the end of the 2007-13 programme period (Institute for Structural Research 2009). The study was updated in 2010 (Institute for Structural Research 2010) and finally extended in 2011 to cover the Visegrád Group countries (Czech Republic, Hungary, Slovakia and Poland, also known as the V4) (Institute for Structural Research 2011). All three studies were carried out by the Warsaw based Institute for Structural Research (*Instytut Badań Strukturalnych*) for the Polish Ministry of Regional Development.

The 2009/2010 study, which looked exclusively at Cohesion policy funding invested in Poland, estimated the additional profits of enterprises based in the UK between 2004 and 2015 of circa €257 million, as a result of Structural Funds investment in Poland, of which €191 million arose from the production of goods and €66 million from the rendering of services.

Table 4.1: Direct returns obtained by EU15 countries resulting from the implementation of Cohesion policy funding in V4 in 2007-13

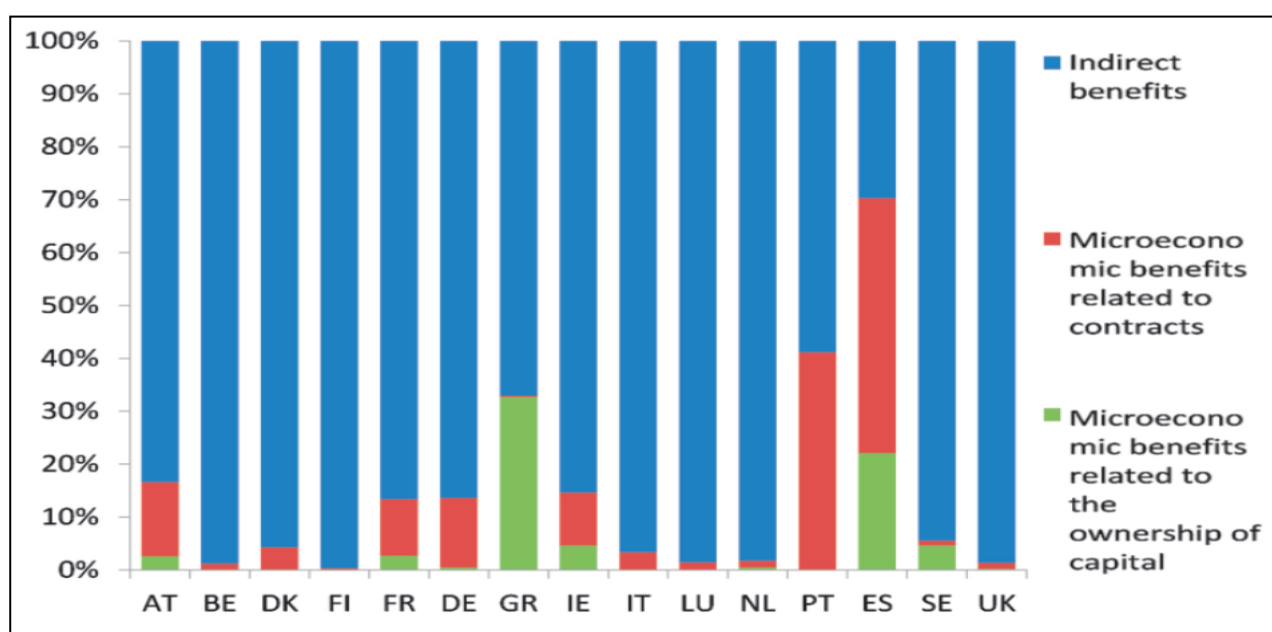
Country	Direct benefits, € million	Obtained contracts, %	Ownership of capital, %	€ per capita
Ireland	637.09	68.3	31.7	154.95
Austria	774.26	84.6	15.4	94.41
Germany	4,275.78	96.6	3.4	51.83
Spain	1,394.28	68.6	31.4	32.20
Portugal	144.93	100.0	0.0	13.79
Sweden	113.72	16.1	83.9	12.62
France	752.83	79.9	20.1	11.99
Luxembourg	4.37	100.0	0.0	9.47
Denmark	50.17	99.9	0.1	9.27
Netherlands	108.87	71.9	28.1	6.70
Greece	51.23	0.8	99.2	4.62
Italy	231.11	97.1	2.9	3.95
Belgium	35.62	92.0	8.0	3.41
UK	63.44	85.2	14.8	1.05
Finland	4.20	83.1	16.7	0.80
EU15	8,641.89	85.5	14.5	22.28

Source: Institute for Structural Research (2011) and EPRC calculations.

The 2011 study went a step further and looked at the effect of Cohesion policy spending in the V4 countries (see Table 4.1). It found that Cohesion policy funding had increased consumer, investment and intermediate demand in the V4 countries, which in turn increased demand for goods and services from other countries. Each €1 spent by EU15 countries as part of their contribution to the Cohesion policy budget²⁴ was estimated to result in €0.61 of additional exports to the V4 countries.

In total, the value of economic returns to the EU15 between 2004 and 2015 was appraised to be in the region of €74.69 billion. The vast majority of this (89 percent or €66.49 billion) are indirect benefits, which come from additional exports of goods and services to the V4. Direct or microeconomic benefits, on the other hand, occurring when a company from the EU15 is a contractor of a co-financed project carried out in the V4, are considered to account for about 11 percent or €8.64 billion. This figure can in turn be disaggregated into contracts and ownership of capital. Of direct benefits, 85 percent (€7.38 billion) are estimated to come from obtained contracts and 15 percent (€1.25 billion) from ownership of capital.²⁵ Table 4.1 shows that direct benefits per capita are amongst the lowest in the UK (€1), while they are very high in other countries (up to €155 in Ireland). The spread between obtained contracts (85 percent) and ownership of capital (15 percent) is in line with the EU15 average. Germany leads the table in absolute terms, as it is the greatest partner for the V4 and Spain comes second due to the strong presence of Spanish construction companies in the V4 markets.

Figure 4.6: Structure of total benefits by type of benefit across the EU15



Source: Institute for Structural Research (2011), p. 37.

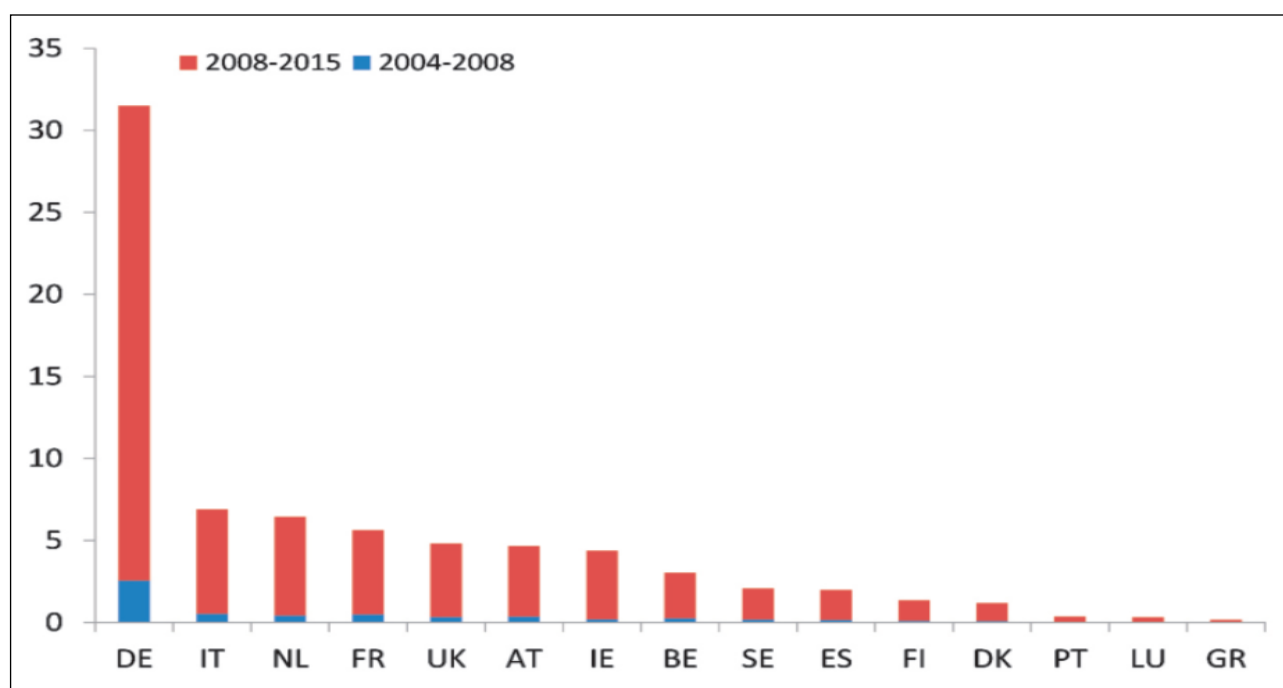
²⁴ In several instances in the study, EU15 returns are explicitly linked to the part of the EU budget dedicated to Cohesion policy, as opposed to the contribution to the EU budget overall (e.g. Ministry of Regional Development, pp. 39, 40 and 64). The report does not explain how the contribution to the part of the budget related to Cohesion policy is calculated. Clarification on this point was sought with the authors of the report but not obtained.

²⁵ Ownership of capital relates to firms with a majority of foreign capital from the EU15, subsidiaries of firms from the EU15 and dividends and transfers to foreign owners.

The importance of the type of return varies significantly between countries (see Figure 4.6). Overall, most returns come from additional exports. In the UK, the returns are almost exclusively indirect, which means that obtained contracts and ownership of capital play only a minor role. Additional UK exports consist mainly of medium high to high tech products. This is also the case for most other EU15, but the UK has the highest share of additional exported services.

In absolute terms (see Figure 4.7), most additional exports relate to Germany (€31.5 billion), Italy (€6.9 billion), the Netherlands (€6.4 billion) and France (€5.6 billion). The UK comes fifth with €4.8 billion, which corresponds to c. €78 per capita, compared to Germany and the Netherlands both with about €390 per capita.

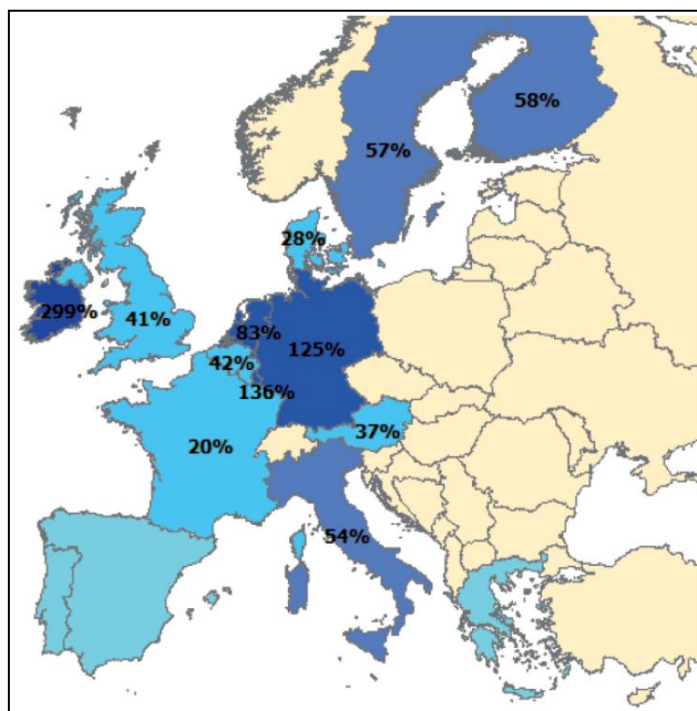
Figure 4.7: Additional exports of EU15 to V4 countries as a result Cohesion policy funding 2004-15



Source: Institute for Structural Research (2011), p. 48.

Figure 4.8 shows the total returns, direct and indirect, in relation to the net contributions of individual EU15 countries. In three countries, the total returns exceeded the net contributions to Cohesion policy: Ireland (299 percent), Luxembourg (136 percent) and Germany (125 percent). The Irish figure is very high due to significant additional exports while the country's net contributions to the policy are very low. For the United Kingdom, total returns correspond to 41 percent of the country's net contributions to Cohesion policy, while the EU15-wide average is at 61 percent.

Figure 4.8: Total returns to EU15 Member States of Cohesion funding in the V4 in relation to their net budget contributions



Source: Institute for Structural Research (2011), p. 40.

Note: Greece, Spain and Portugal are EU15 but net recipients of Cohesion policy.

Conclusions

EU Member States derive benefits from Cohesion policy investments undertaken in other countries. These benefits are direct, derived from firms winning contracts for EU-funded projects, and indirect associated with increased export of goods and services.

Research on the economic returns to net payer countries of Cohesion policy expenditure in the 2000-04 period found positive impacts on UK GDP and employment, largely due to the UK's significant trade with Ireland and Spain. A later study evaluated returns to the EU15 countries as a result of the implementation of Cohesion policy over the 2004-15 period in the Visegrád countries (Czech Republic, Hungary, Slovakia and Poland). For the UK, there were substantial returns in terms of contracts awarded to UK firms, ownership of capital and increased trade. When the total returns are related to the budget contributions to Cohesion policy of individual net payer countries, the returns for Germany, Ireland and Luxembourg exceed their budget contributions. For the United Kingdom, the returns are equivalent to 41 percent of its budget contributions to Cohesion policy.

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Assessment of territorial governance and targeting

This chapter assesses two interrelated questions. First, it reviews the distribution of competences in Cohesion policy and specifically the effectiveness and efficiency of the multilevel governance model. Second, it examines the coverage and targeting of the funds - whether the types of activity covered by the Structural and Cohesion Funds are more appropriately funded at the EU level, national or regional/local level, and specifically the extent to which the Funds should be targeted at less-developed Member States or regions and disadvantaged groups rather than being available as sources of investment for economic development across all areas.

Shared management

There are various management models for administering funding in the EU. Cohesion policy is implemented under the so-called 'shared management' model, in which the European Commission delegates implementation responsibility for the Structural (ERDF/ESF) and Cohesion Funds to the Member States while retaining overall responsibility for the budget. This model contrasts with 'indirect management', where implementation responsibility is delegated to third parties (such as European Investment Bank and European Investment Fund loans, or development aid through third countries and international organisations); or the 'centralised management' model where the Commission is responsible for administering funding directly (e.g. the RTDI programme 'Horizon 2020') or indirectly (e.g. Trans-European Network-Transport (TEN-T) projects by DG Mobility and Transport (MOVE) through its executive agency TENT-EA).

The shared management model in Cohesion policy is widely accepted as the most effective method for implementing regional development funding, despite the existence of administrative and compliance difficulties. Administering substantial budgetary resources on an annual basis would not be feasible or cost-effective through direct management by the European Commission (Bachtler *et al.* 2013). Indeed, the limited management capacity in the European Commission is one of the main reasons why the EU moved from the project-based approach under the ERDF in the 1970s and early 1980s, involving Commission approval of individual project applications, to the programming approach under the 1988 reform, requiring programmes to be agreed by the Member States and Commission while devolving responsibility for project decisions (except for major projects) and the main implementation functions to the Member States.

An area of the Cohesion policy shared management model that has been subject to criticism by the Commission during the post-2013 policy review is TEN-T projects financed by the Cohesion Fund, because of Member State delays in approving and implementing priority projects deemed to be of major importance for EU transport and internal market objectives. As a consequence, it was agreed that a share of the Cohesion Fund for 2014-20 would be transferred to the new Connecting Europe Facility managed directly by DG

MOVE with a view to speeding up the implementation of the priority projects. During the negotiations, the main concern of the Member States and the European Parliament's REGI Committee was that countries eligible for the Cohesion Fund would not be guaranteed their pre-agreed envelopes of funding if they face absorption challenges, although the Commission provided safeguards to address these concerns.

There are differences in the approaches to shared management across the Structural, Rural and Fisheries Funds (collectively known as the European Structural and Investment Funds for the 2014-20 period) which lead to different views about their relative effectiveness and whether there are good practices that can be identified to improve the functioning of the Funds individually or collectively. A recent study provided a comparative assessment of the administration of these shared-management Funds in the areas of programming, monitoring and evaluation, implementation and financial management based on interviews with Commission staff in the different Directorate Generals (CSIL 2013).

- In general and across all policy functions, DG Regio staff tended to see more scope for improvement in the shared management model compared to respondents from DG AGRI.
- Within Cohesion policy, DG REGIO and DG EMPL shared a positive assessment of the strategic dimension to programming – but considered that broad EU objectives may dilute concentration and that it is capacity at Member State level that ultimately determines the effectiveness of the strategic approach - and were both critical of the high error rate and limited focus on results.
- All DGs were critical of the “mainstreaming” of innovative approaches foreseen for 2007-13 in terms of the lack of expected results in the diffusion of innovative practices.
- Regarding implementation, there were moderate levels of satisfaction in general assessments of delivery systems. DG Regio staff highlighted the administrative demands of compliance with EU legislation that contribute to complexity despite effort towards simplification. Assessments of monitoring and evaluation and of financial management practices by DG AGRI staff tended to be more positive than the other DGs, partly because of the more prescriptive approach employed under the rural development fund.

It is worth stressing that these views may differ to those of Member State officials. For instance, most Member States support the more flexible and needs-based approach to monitoring and evaluation under the Structural Funds (compared to the more prescriptive approach under the Rural Development Fund), and argue that the higher levels of financial irregularities under the ERDF, CF and ESF are partly due to the complexity of EU rules (Mendez *et al.* 2013).

Is the multi-level governance model effective and efficient?

A unique and defining feature of EU Cohesion policy compared to other EU policies is its Multi-level Governance (MLG) model of implementation. MLG is codified in the partnership principle of the Structural Funds General Regulation and is a broader concept than shared

management (regulated by the Financial Regulation) in so far as it does not only relate to the role of public actors, but also the wider private and societal stakeholders that participate in the design and delivery of programmes at EU, national and sub-national levels.

The term multilevel governance, and its popularisation in academic and policy discourse, originates in the study of Cohesion policy particularly the implementation of the partnership principle (Marks 1992; 1993). The partnership principle is often identified as one of the main areas of EU added value in Cohesion policy and is credited with having a significant impact on regional policy practice in the Member States (Bachtler and Taylor 2003). Since 1988, regional policy partnerships across all Member States have been Europeanized to varying degrees. In the early years, national governments were in many cases the sole interlocutors with the European Commission and 'gatekeepers' to European funding (Anderson 1990; Pollack 1995). Over successive programme periods, regional and local governments and partner organisations (including environmental and gender equality bodies and the voluntary sector) have been progressively integrated into programme decision-making and implementation (Tavistock Institute 1999; Bachtler *et al.* 2009; Bache 2010). In the UK, for example, this has created opportunities for local authorities and voluntary organisations to secure resources over and above their core budgets to address identified development needs (Bachtler and Taylor 2003) and supported ongoing regionalisation dynamics in England (Bache 2008).

The impact of Cohesion policy on wider territorial governance and political-institutional decentralisation is disputed in the MLG and Europeanization literature, although positive spillover effects can be detected on domestic policies and governance in both old and new Member States (Bachtler *et al.* 2009). That said, the implementation of the partnership principle is uneven across and within the Member States, and various studies highlight substantial challenges to effective implementation of the principle (Tavistock Institute 2009; Michie and Polverari 2009; METIS and EPRC 2014).

- Limited experience of partnership-working: especially where political decentralisation is limited or there is a lack of neo-corporatist/social-market economy traditions based on consensual and cooperative governance.
- Lack of resources: to effectively participate in programme decision-making and understand the complex array of rules governing Cohesion Policy rules.
- Administrative/managerial tensions: associated with the increased role of the Commission and emphasis on financial compliance, as well as tensions between different tiers of government within the Member States.
- Veto points: the higher the number of actors involved, the greater the complexity of management and potential for decision-making deadlock.
- Democratic deficits: the role of democratic institutions and elected representatives is often limited in programme partnerships in favour of a technocratic decision-making model.

Beyond these well-documented governance effects and tensions, the contribution of Cohesion policy's MLG model to regional development is uncertain. Various OECD reports

(e.g. OECD 2009; 2012) and the Barca Report (2009) have argued that MLG is the most effective approach for regional and national development policies because it allows for top-level priorities to be tailored to local needs and potentials. A recent study examining Cohesion policy implementation in a number of case study regions, based on interviews with programme managers and stakeholders, found that the MLG model can contribute to greater policy effectiveness, legitimacy and transparency in decision-making processes, as well as greater commitment and ownership of programme outputs (METIS and EPRC 2014). However, there is a lack of robust, credible and quantified evidence of the impact of MLG on economic outcomes compared to other centralised models of regional development policy. Just as the impact of Cohesion policy on economic development is difficult to disentangle from other drivers of growth, the contribution made by the MLG model is equally if not more difficult to quantify.

The (in)efficiency of the MLG model is one of the most frequent criticisms by national policy-makers and stakeholders in terms of the administrative workload and bureaucracy involved in managing the funds and complying with the multitude of rules, particularly in relation to the sums of funding involved or to domestic policies in many countries. However, as already discussed in a previous chapter of this report (Assessment of the value for money of Cohesion policy), a study examining other comparable policy fields managed by international organisations, such as the World Bank's global and regional partnership programmes and a range of other bilateral aid programmes, found that they have considerably higher administrative costs than EU Cohesion policy, while the European Bank for Reconstruction and Development (EBRD) has broadly comparable management and implementation structures and roughly similar general administrative expenses (SWECO 2010). Moreover, various types of management and implementation systems across the Member States do not differ significantly in terms of administrative workload. Centralised systems have a somewhat lower median administrative workload than regionalised and mixed systems, although the differences are marginal. The implication is that the extent of MLG within Member States does not have a negative impact on the efficiency of Cohesion policy management.

Coverage and targeting

The second set of themes of interest are the coverage and targeting of the funds - whether the types of activity covered by the Structural and Cohesion Funds are more appropriately funded at the EU level, national or regional/local level, and specifically the extent to which the Funds should be targeted at less-developed Member States or regions and disadvantaged groups rather than being available as sources of investment for economic development across all areas.

The geographical coverage and targeting of Cohesion policy is underpinned by the concentration principle, which aims to focus the funds on the less-developed countries and regions of the EU. The modalities of this principle are complex and encompass a series of geographical eligibility and financial allocations criteria agreed as part of the wider negotiations on the EU budget (for historical reviews, see Bachtler and Mendez 2007; Bachtler *et al.* 2013). The level of GDP per head relative to the EU average is the main criterion used for targeting the funding on the poorest countries and regions of the EU, which receive considerable higher financial allocations than the most developed parts of the EU. While concentration has remained a key principle since 1988, geographical coverage has evolved from a targeted approach to an all-region policy since the

elimination of 'zoning' (targeting of specific areas) in the more-developed EU regions in 2007-13.

The geographical coverage, specifically the poor country/region focus, has been an issue in the last two reform debates. This partly reflects an intrinsic link between the Cohesion policy budget and the EU budget negotiations, since the overall size of the Cohesion policy budget and relative allocations to countries/regions can have a sizeable impact on the net balance of contributions and receipts from the overall EU budget, as well as doubts about the added value of Cohesion policy in richer countries and regions. In the run-up to the negotiations of the 2006 reform, the continuation of a funding strand for more-developed regions was threatened by a group of 'net contributor' countries (Germany, Netherlands, Sweden, UK) who had advocated that EU cohesion policy should be restricted to the poorest countries/regions of the EU (HMT *et al.*, 2003). In the recent reform negotiations for 2014-20, the UK government also called for a phased withdrawal of funding in the wealthiest Member States in its response to the Fifth Cohesion Report consultation and other countries argued that there should be more concentration on less-developed countries and regions (Denmark, Netherlands). The Commission's proposal for a new intermediate category of Transition regions was also contentious. While a significant number of countries supported the idea, Italy and the Netherlands initially rejected the proposal while Austria, Denmark and Sweden considered that funding should be limited or reduced for this new category (which was the eventual outcome).

The European Commission and European Parliament have always argued for a pan-EU Cohesion policy to support all Member States, with a higher concentration of funding in the less-developed EU regions. As part of its reform proposals for the 2007-13 period, the Commission responded to the renationalisation threat by re-packaging Objectives 2 and 3 as a 'Regional Competitiveness and Employment' objective, oriented to the goals of the Lisbon strategy and giving Member States more flexibility to determine geographical eligibility and allocations internally. For the 2014-20 period, the Commission examined a 'lagging country focus' option in its impact assessment accompanying the reform proposals with funding restricted to the less-developed Member States (European Commission 2011). The scenario implied a budget half the size of the alternative status quo option covering only those countries with an average GNI/head of less than 90 percent of the EU average and 22 percent of the EU population. While concentration on less-developed countries would save money for the EU budget, the option was rejected for four reasons: Cohesion policy would become a redistributive policy losing its allocative benefits across the EU; there would be lower incentives to foster cross-border spill-over effects across countries and regions; the incentives to contribute to EU-wide priorities would decline; and there would be lower growth effects on the EU economy

Targeting Cohesion policy on the less-developed regions

The rationale for assigning the EU competences and funding for regional development, especially to richer countries or regions, is contested and has been a prominent feature of reform debates over successive reviews of the EU budget. As part of the last EU budget review for the 2014-20 period and beyond, several studies and think-tank reports have been published offering different assessments and conclusions on these issues (ECORYS *et al.* 2008; Barca 2009; Begg 2009; Santos 2009; Open Europe 2012).

The ECORYS *et al.* (2008) study commissioned by DG Budget assessed the assignment of EU spending responsibilities between the EU and Member States across all EU policy areas with a view to providing recommendations on future spending priorities for the EU budget. The study applied a 'subsidiarity test' to the main EU spending policies based on the fiscal federalism criteria of preference heterogeneity, economies of scale and externalities as well as public choice theory and political-economy arguments relating to the disciplining function of competition, complementarity between policies, lobbying at the national and European level. The study's conclusion was that parts of Cohesion policy (namely, funding for the richer regions under the Competitiveness and Employment Objective strand), most of pillar I of the Common Agricultural Policy (income and price support) and a considerable share of pillar II (rural development fund) did not pass the subsidiarity test.

Looking more specifically at Cohesion policy, the report makes a clear distinction between the different strands of funding (Table 5.1). The rationale for Convergence funding for the less-developed EU regions is assessed as being strong and well-justified on various normative and political-economy grounds:

- scale economies with respect to regional policy financing and institutional capacity;
- externalities and spillovers effect to other regions and trade with other countries;
- complementarities with other EU policies;
- second-best issues, if national governments do not offer regional policy support or have ineffective delivery mechanisms;
- redistribution and solidarity between Member States;
- preventing emigration from low-income regions; and
- better income distribution and stabilisation.

The territorial cooperation objective of EU Cohesion policy is also assessed positively. Not only because of the presence of economies of scale but also, and more importantly compared to other strands of Cohesion policy, because of externality and spillover effects; cross-border cooperation can only be dealt with effectively through joint programmes and is a neglected aspect of domestic territorial development policy due to institutional, cultural and governance obstacles that are inherent in such programmes. There are also internal market complementarity arguments favouring an EU-wide territorial cooperation strand because it contributes to the free movement across borders of goods, services, capital and labour. It is worth pointing out that the territorial cooperation strand of Cohesion policy has historically commanded widespread political support across Member States and EU institutions and is recognised to provide high European added value (Bachtler and Taylor 2003; Tarschys 2003).

By contrast, the case for EU funding under the Regional Competitiveness and Employment Objective for more-developed EU regions is assessed as being weak. The main criticism is that the funds are allocated mainly to richer Member States with the

financial and institutional capacity to fund and deliver their own regional development policies. Consequently, the economy of scale argument is not relevant to this strand of funding. There are positive spillover effects in terms of trade but these are relatively low. Finally, although there are arguments to support EU budgetary intervention for Internal Market policies and the Lisbon agenda, this need not be done through a regional policy framework. Based on these findings and echoing the conclusions of the Sapir Report (2003) during the previous budget review, the main policy recommendation study was that the EU should maintain its competences and funding for EU Cohesion policy in less-developed regions and under the territorial cooperation strand while discontinuing the Regional Competitiveness and Employment funding strand for more-developed regions.

Table 5.1: ECORYS *et al.* conclusions on Cohesion policy

Objectives	Convergence	Reg. Competitiveness and Employment	Territorial Cooperation
Does the following apply:			
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 cooperation	No	No	Sometimes
Proportionality	Yes	No	Yes
Conclusions on the role for the EU budget	Yes	Limited	Yes

Source: ECORYS *et al.* (2008, p. 112).

Another contribution to the debate taking a critical stance on Cohesion policy support for richer countries, particularly in the case of the UK, is an Open Europe report *Off-target: The case for bringing regional policy back home* (Swidlicki *et al.* 2012). While recognising several arguments for EU-level spending on regional development, the case for supporting richer countries is considered to be weak. Three main criticisms are highlighted with respect to the rationale and effectiveness of geographical targeting.

- **Ineffective tool for redistribution.** Replicating the analysis of a Bruegel policy report (Santos 2009), the report finds that within the richer Member States there is a significant redistributive effect with regions (rather than across regions or countries as intended) because of the individual contribution of these regions to the EU budget via their tax contributions to national budgets.
- **Conflicting objectives.** If the primary aim of the Funds is convergence, and scarce public funds should avoid replicating what the market can already provide, spending in richer member states and regions is wasteful and irrational.
- **Poor targeting.** Weaker regions can lose out on financial allocations owing to the use of GDP as an indicator for eligibility and allocations compared to other measures of economic welfare such as disposable income.

In line with the ECORYS study, the authors argue that Cohesion policy should focus exclusively on poorer Member States with eligibility restricted to countries with an average income below 90 percent of EU average. They also highlight that this would allow richer Member States to make significant savings in EU budget contributions and regain control over their own regional policies.

EU policy coordination for richer countries/regions without funding

The Treaty commitment to cohesion requires the EU to promote harmonious development and a reduction in disparities across all Member States irrespective of the spatial targeting or level of financial support. If Cohesion policy resources were restricted to the less-developed countries/regions, the role of the EU level in the more-developed areas could be more one of coordination of national regional policies (Begg 2003). As in existing areas of EU policymaking, such as research or employment policies, this could be governed by the 'open method of coordination', involving the setting of joint objectives at EU level, periodic monitoring and sharing of national regional policy experiences with a view to improving the design and implementation of national policies and strategies, the development of coordinated or joint initiatives on issues of transnational interest, and the identification of areas where Community initiatives could reinforce national actions. It would involve developing some of the 'experimentalist governance' features of the existing programming method (Mendez 2011): agreeing objectives, guidelines and timetables for achieving EU cohesion and wider Europe 2020 objectives; establishing quantitative and qualitative indicators and benchmarks, tailored to the needs of Member States and regions; translating European guidelines into national and regional policies, but at the initiative of the Member States without any binding regulation at EU level; and periodic monitoring and peer review of the progress at EU level to stimulate mutual learning processes across Member States, both through formal institutional channels (e.g. Council of Ministers meetings) and through more informal networking initiatives (e.g. the open days).

To be effective, this policy coordination approach would require the Member States to take political ownership of cohesion objectives (Begg 2003). Proactive engagement by the Member States in peer review processes would be another important ingredient (Mendez 2011). The OECD practice of territorial reviews of regional policies could provide a model to learn from. A key part of the OECD review process are evaluation missions by international experts and high-level officials and elected representatives from peer

countries/cities to feed into the process of assessment and to provide recommendations based on international experiences.

Retaining Cohesion policy across all regions, including richer areas

A stronger case for retaining Cohesion policy across all regions, including in richer areas, has been made in several other contributions to the debate on geographical targeting in Cohesion policy. For instance, a study commissioned by DG REGIO questioned the methodological assumption and conclusions of the ECORYS study (Begg 2009). In particular, Begg (2009) argues that a subsidiarity test based on fiscal federalism and public choice theories is incomplete because “the realities of the EU are much more complex and the factors that have to be taken into account are not just economic but also constitutional, political and even administrative.” Taking this broader perspective and looking more specifically at the case for EU support to richer regions, Begg does not provide a definitive conclusion arguing that “there is no easy answer to whether or not there should continue to be funding for richer regions or even for convergence regions in richer Member States”. Nevertheless, a larger array of arguments in support of EU intervention and funding for richer regions is provided in the assessment (summarised in Table 5.2 below), particularly in terms of the constitutional, political and economic case.

- **Constitutional:** In constitutional terms, the treaty objective of cohesion is vague but implies a commitment to Structural Funds support in all Member States.
- **Political:** There are also political and legitimacy arguments favouring an all-region approach (covering developed and less-developed regions), given the strong support for this among EU citizens, institutions (notably the European Parliament) and interests groups.
- **Economic:** compared to the other studies, the economic case places greater emphasis on the contribution to wider economic goals relating to the Lisbon agenda and in providing a supportive framework for the regulation of regional aid under EU Competition policy.

Table 5.2: Arguments in favour of Cohesion policy in richer regions

Argument	Sub-argument	Reasoning	Strength of argument	Does it support case for EU intervention in richer regions?	Does it support case for EU funding in richer regions?
Constitutional					
	Treaty obligations	Treaty requires cohesion policies; no restrictions by Member State indicated	Quite strong	Yes	Neutral
	Definition of regions	Treaty specifies richer regions	Strong	Yes	Yes
Political					
	Better use of public finances	Cutting support for richer regions, allows other priorities to be favoured	Strong	Does not exclude it	No
	Legitimation	Actors/citizens support it	Moderate	Yes	Yes, but could justify different intensity of spending
	Preferences of regional interests	Regions may support spending in richer regions, even if MS does not	Questionable	Perhaps	Marginal
Economic					
	Redistribution	Primary role of cohesion is equalising	Powerful	Neutral	No
	Effects of integration	Source of problem is EU integration, hence so is remedy	Moderate	Yes	Perhaps
	Fiscal capacity	Richer Member States have resources to deal with regional problems, hence no need for EU resources	Quite Strong	No	No
	Spillover effects	Regional policy is justified if there are cross-border spillovers	Can only be assessed empirically – dubious	Maybe	Maybe

Table 5.2: Arguments in favour of Cohesion policy in richer regions (continued)

Argument	Sub-argument	Reasoning	Strength of argument	Does it support case for EU intervention in richer regions?	Does it support case for EU funding in richer regions?
	Confusion in purpose	Ambiguity about what allocative role Regional policy plays in richer regions	Moderate	Confused	Maybe
	Wider economic role	Cohesion policy has to support Lisbon aims as well as 'solidarity'	Reasonably strong, but contentious	Yes	Yes
	Regulating state aids	State aids in richer regions may have negative effect on poorer regions	Quite strong	Yes	Yes
Governance and administrative					
	Enhances governance	EU policy model leads to governance improvements	Previously strong, but may be fading	Yes	Maybe
	Cross-border policy operations	Requires spending in many Member States, not all of which are poorer	Strong	Yes	Yes
	Coordination options	Many of the gains can come through coordination mechanisms	Could become strong	Yes	No

Source: Begg (2009, p. 3).

A more wide-ranging study commissioned by DG Regio as an input to the post-2013 Cohesion policy review is the Barca Report (2009), which offers a distinct perspective on the policy's rationale and territorial governance. Underpinning the Barca Report's conceptualisation of Cohesion policy is a place-based narrative in line with the OECD's vision of the shifting paradigm of regional policy (Mendez 2013). Contrasting with the economic criteria and assumptions informing fiscal federalism and public choice theories or the political case, the normative foundation of this place-based narrative is built on federalist and political conceptions of social and territorial justice. Specifically, the Barca Report conceptualises the EU as a federation-in-the-making and Cohesion policy as a core EU instrument for contributing to the realization of the rights and expectations of EU citizens to benefit from the economic gains from European integration, to have equal access to the opportunities created as well as an equal possibility of coping with the risks and threats posed wherever they happen to live in the EU (Barca 2009, p. xiv). The implication is that eligibility should be open to all EU citizens in all regions of the EU territory. A similar perspective informs the Barca Report's conceptualisation of Cohesion policy's economic rationale, which is interpreted as tapping into the under-utilised potential which exists in all EU regions in line with new economic geography theories and mirroring OECD thinking (for a recent exposition, see OECD 2012). Finally, an institutionalist argument supporting an EU role in the governance of regional policy across all EU regions is that it provides an external pressure to challenge vested interests that limit the effectiveness of domestic regional development policies in less-developed and more-developed regions alike.

Different targeting models

The debate on targeting Cohesion policy has been dominated by the proposals for retaining the current all-region approach or focusing the Funds more or exclusively on the less-developed countries and regions. It is worth noting that other allocation proposals have also been put forward. These were discussed extensively in the early 2000s with reference to the implications of EU enlargement for the EU Cohesion policy budget and whether different allocation models were needed (see Bachtler *et al.*, 2013, pp. 113-128), including the option of allocating EU funding to Member States according to criteria such as GDP per head and population and leaving the design and delivery of policy to national governments.

From a different perspective – the need to enhance the EU's growth performance – the Sapir Report in 2003 also proposed redirecting Cohesion policy through a growth fund for the EU to promote competitiveness, a convergence fund targeted at low income countries, and a restructuring fund targeted at affected individuals in all Member States (Sapir *et al.* 2003).

The thinking underpinning the Sapir report is reflected in more recent contributions by the Bruegel think tank (Santos, 2008; 2009; Marzinetto, 2012). An analysis of the allocation of Structural Funds spending found that, on the one hand, EU resources are not spent in a way that would “optimise their potential to generate EU-wide growth” (Santos 2008, p. 6); research found that the Funds are not allocated to regions with the highest return on capital. On the other hand, the study also questioned the redistributive role of the Funds on the basis that “regions themselves pay for much of the SF they receive, limiting the extent of inter-regional distribution” (ibid). The research concluded that the EU should use country-level criteria for the allocation of funds – focusing policy on convergence between Member States - with national governments being best placed to undertake subnational distribution.

This argument was developed further by Marzinetto (2012) whose analysis of national and regional income convergence led to the observation that “there is probably no reason for EU Cohesion policy to be concerned with what happens inside countries.....national governments redistribute well across regions, whether they are fiscally centralised or decentralised”. However, whether the allocation is at national or regional level, the Funds should be allocated to

maximise returns on investment. Thus, support should be provided to overcome bottlenecks or facilitate sectoral restructuring that create conditions to exploit comparative advantage, but it should not be allocated to compensate for disparities arising from policy failures (e.g. lack of labour mobility, weak institutions), geographic disadvantages or agglomerations of “benign origin”.

The United Kingdom debate on targeting

As noted above, the question of whether Structural Funds should be targeted on less-developed countries and regions, allowing richer countries to deal with regional development challenges through national policies, has been of particular concern to the United Kingdom. This was reflected most prominently in the UK Government’s 2003 ‘modern regional policy’ White Paper, which proposed that – as part of constraints on overall EU budgetary expenditure - EU support should be concentrated on the relatively less prosperous states, taking account of their absorptive capacity (HMT, DTI and ODPM 2003). Regional assistance in the more prosperous Member States (i.e. Member States with greater than 90 percent of the average EU GNP per capita measured in purchasing power parities, the criterion currently used for the Cohesion Fund) would be funded domestically. The White Paper also provided a pledge: if the proposed devolved framework for EU policy were to be accepted, the UK Government guaranteed to increase UK spending on regional policy so that the nations and regions would receive a level of resources which ensured that they would not lose out from the UK’s proposals on Structural Funds reform.

While some of the governance aspects of the UK White Paper influenced the debate on Structural Funds reform (e.g. establishing an EU-level policy framework, coordination of Funds), the proposed targeting of resources was not supported by most other Member States in the 2005 reform of Cohesion policy, and it also received a mixed reaction in the UK (see the review of the debate in Bachtler *et al.*, 2013). In advance of the 2013 reform, the UK (as noted above) again stated that “wealthier Member States should not receive Structural and Cohesion Funds in the longer term” but that in view of the adjustment process required, “they should continue to receive funding in the 2014-2020 programming period” (BIS 2011).

The above issues were debated most recently in the UK as part of the House of Commons inquiry by the Communities and Local Government Committee on ERDF in 2012 which included the question of ‘repatriating regional policy’ (House of Commons 2012). A strong argument in favour of the Funds only going to the poorer parts of the EU was made by Open Europe (Swidlicki *et al.* 2012) as noted above. Applying some of the arguments of Bruegel (e.g. Santos 2008, Marzinotto 2012), their critique of the current system was essentially as follows:

- there is a lack of conclusive evidence that the Structural Funds have had an *overall* positive economic effect on Europe’s economy;
- the current system channels funding away from those (poorer) countries/regions where they would relatively have the greatest impact, while in richer countries there is a danger of Structural Funds crowding out other investment;
- the added economic value for the Structural Funds in Britain is questionable given that “the structural funds mostly serve to redistribute income *within* the same regions”; and
- there are substantial administrative costs and irregularities associated with Structural Funds spending.

On this basis, Open Europe argued that “limiting the funds to EU Member States with income levels at 90% or below the EU average...would instantly make the funds easier to manage and tailor around the needs of the poorest regions in the EU”. The net balances of most Member States would improve, and specifically the UK would make savings of up to £4.2 billion over a seven-year period.

A rebuttal of these arguments was provided in evidence from Professor Steve Fothergill. He accepted that the re-nationalisation of the Funds would bring benefits in reducing bureaucracy and allowing spending on regional aid to be tailored more closely to UK circumstances. However, his submission took issue with the Open Europe argument on two grounds. First, he maintained that the net gain to the UK would be lower; taking account of the UK rebate, the net benefit would be “a little over £1.5 billion”. Second, he questioned whether renationalisation would be deliverable politically in the context of EU budgetary negotiations where the “net financial losers” (identified as Spain, Italy and Greece) would be likely to block the proposal (Fothergill 2012).

Other evidence submitted also by the Welsh Assembly and “many organisations that submitted written evidence” also opposed the policy repatriation on the basis that they valued the long-term nature and focus of EU funding streams. Thus, the Committee concluded that “we support the principle of repatriating regional policy funding, provided funding could be protected and ring-fenced over the long-term to ensure that the poorest English regions continued to receive the same level of support they would have received under the current system” (House of Commons 2012, p. 34).

Concentration of spending on thematic priorities

The economic, social and territorial objectives underpinning Cohesion policy are multidimensional and general providing the possibility of supporting a wide range of themes, investment priorities and types of activity in pursuit of cohesion. On the one hand, this thematic breadth is justifiable because it is coherent with the growth prescriptions of economic theory in terms of increasing physical capital endowment, enhancing human resources, promote R&D and improve the economic, social and institutional as well as the business environment (Ward and Wolleb 2009). On the other hand, ‘goal congestion’ has been identified as a fundamental weakness of Cohesion policy as there are trade-offs and conflicts between the different objectives, and because they are overambitious and set unrealistic expectations (Tarschys 2003). Moreover, it has been increasingly recognised that there has been an excessive dispersion of funding across too many goals and fields of interventions in many countries, which limits the achievement of critical mass and impact, as well as insufficient concentration on EU priorities (Barca 2009; Ward and Wolleb 2009; European Commission 2011).

Set against this background, the Commission has sought to increase the concentration of funding thematically on the EU’s Lisbon Agenda and Europe 2020 strategy under the last two reforms in 2006 and 2013. This has involved agreeing on a high-level strategy for Cohesion policy based on Lisbon/Europe 2020 goals to strategically steer national strategies and programmes, as well as the introduction of earmarking/ring-fencing mechanisms to shift funding towards RTDI, business competitiveness, low-carbon economy and social inclusion objectives and away from basic transport and environmental infrastructure, especially in more-developed regions.

There are, however, several challenges arising from concentrating funds on the EU’s overarching growth and jobs objectives. First, it is argued that Cohesion policy is losing its identity and traditional focus on cohesion in terms of a reduction of territorial disparities (Begg 2008; House of Lords 2012; Bachtler *et al.* 2013). This is perhaps less problematic under the

ESF, where the inclusive growth and poverty reduction agenda envisages greater geographical (and social group) targeting than previously, and the reinforced local agenda under the ERDF has a strong territorial dimension.

Second and related, the thematic priorities emphasised by the Lisbon/Europe 2020 strategies may not be suited to the economic conditions of less-developed countries and regions. As the latest Strategic Report on the performance of Cohesion policy has highlighted, the less-developed regions found it more difficult to absorb funds allocated to Lisbon-earmarked categories, both compared to more-developed regions and to non-earmarked spending priorities (European Commission 2013). Commission efforts to impose blanket restrictions on infrastructure spending irrespective of the soundness of the economic case are also contested by some Member States including in more-developed countries such as the UK.

Finally, the closer alignment of Cohesion policy with the Europe 2020 strategy may have negative consequences for core governance principles. One is the thematisation or sectoralisation of Cohesion Policy, which can detract from the integrated approach of coordinated action across a range of different policy domains. Another is greater centralisation of Cohesion policy governance at national level, where the core competences for Europe 2020 policies lie, posing a threat to the multi-level governance model underpinning Cohesion Policy.

Conclusions

This chapter has examined two sets of inter-related themes concerning the territorial governance and targeting of Cohesion policy, both of which are distinctive features of the policy and have evolved considerably over time.

The Multi-level Governance model of policy implementation pioneered in EU Cohesion policy - involving the participation of a wide array of public, private and societal actors at EU, national and sub-national levels in the design and delivery of programmes - is one of the policy's main areas of added value and is credited with having a significant impact on regional policy practice in the Member States and regions. The MLG model can contribute to greater policy effectiveness, legitimacy and transparency in decision-making processes, as well as greater commitment and ownership of programme outputs, but the effects on regional development are extremely difficult to quantify.

Multi-level governance also poses challenges, particularly in the area of financial management. The so-called shared management model of budgetary implementation, with responsibility for implementation delegated to the Member States and regions while granting the Commission overall responsibility for budgetary assurance, poses high delegation risk and an ongoing problem of high levels of irregularities. This has forced the Commission to introduce more stringent requirements and stricter enforcement of compliance, resulting in higher administrative workload and bureaucracy for programme managers and implementing bodies with negative consequences for how the policy is perceived. In several richer countries, including the UK, beneficiaries are avoiding applying for Structural Funds if alternative funding sources are available.

Geographical concentration is another core principle underpinning Cohesion policy. Over time, the targeting of Cohesion policy has evolved from focusing on designated regions characterised by underdevelopment, industrial restructuring or rural problems to a policy that is available to all regions throughout the EU. In part, this reflects the shift in the policy's objectives, away from the traditional concern with reducing regional disparities to promoting growth and competitiveness across the whole of the EU.

The changes in targeting are also due to the dynamics of the EU budget negotiation, where Cohesion policy has been used as an 'adjustment variable' to ensure that each Member State gets a politically acceptable net balance. Hence, the eligibility requirements and financial allocation mechanisms have been adapted to ensure that the net beneficiaries are also able to benefit substantially from Cohesion policy funding. The policy also has a large number of interest groups, in rich as well as poor countries, that lobby hard to ensure continued access to a share of the Funds.

The economic, social and territorial objectives underpinning Cohesion policy are multidimensional and general providing the possibility of supporting a wide range of themes, investment priorities and types of activity in pursuit of cohesion. Moreover, the policy is recognised to suffer from 'goal congestion' due to the need to address new EU priorities over time, and there has been an excessive dispersion of funding across too many goals and fields of interventions in many countries. Efforts to increase thematic concentration on the Lisbon agenda and Europe 2020 objectives are widely supported, but also raise challenges. First, Cohesion policy is losing its identity and traditional focus on cohesion. Second, and related, the thematic priorities emphasised by the Lisbon/Europe 2020 strategies may not be suited to the economic conditions of less-developed countries and regions. Finally, the closer alignment of Cohesion policy with the Europe 2020 strategy may have negative consequences for core governance principles such as integrated programming (owing to the thematic approach) and the partnerships principle (because of the centralised approach to Europe 2020 governance).

The above review shows that there are strong arguments for reconsidering the targeting of Cohesion policy on the grounds of economic efficiency and budgetary added value. There are viable alternative models – within the existing approach to allocate funding at the Member State level or to shift the allocation criteria to prioritise growth opportunities, or to restrict the allocation of the Funds to the less-developed countries and regions. However, arguments for the change invariably underplay or ignore the political factors: the strength of institutional support at EU level and in a significant number of Member States; and the need for a credible political strategy for making the case for change internationally and achieving unanimous agreement. EU Cohesion policy is one of the areas of EU policymaking where it is possible to quantify the gains and losses of policy change, but without a strategy that can secure agreement from all Member States, even a well-grounded case for change will not succeed.

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Assessment of Trans-European Networks (TENs)

The final question for this study is the extent to which the TENS have supported or promoted cohesion, interconnection and interoperability of national networks and access to networks across the EU, and whether this has been in the UK's national interest. This chapter provides a brief assessment of the Trans-European Networks (TENs) and the specific benefits that it brings to the UK.²⁶

Objectives of TENs

Trans-European networks (TENs) emerged at the end of the 1980s in conjunction with the Single Market to allow transport, energy grids and telecommunications to be planned on an EU wide basis. The legal basis for the TENs was set out in the Maastricht Treaty (entered into force in 1993).. According to the terms of Chapter XV of the Treaty (Articles 154,155 and 156) the EU must aim to promote the development of Trans-European Networks as a key element for the creation of the Internal Market and the reinforcement of Economic and Social Cohesion. This development includes the interconnection and interoperability of national networks as well as access to such networks.

TENs were thus created for three sectors of activity:

- **Trans-European Transport Networks (TEN-T)**, which cover road and intermodal transport, waterways and seaports, European high-speed railway network, as well as intelligent transport management systems and Galileo.²⁷
- **Trans-European Energy Networks (TEN-E)**, which cover the electricity and natural gas sectors. TEN-E help to create a single energy market and contribute to security of supply.
- **Trans-European Telecommunications Networks (eTEN)**, which have as their aim the deployment of telecommunication network-based services.

According with these strands, there are guidelines covering the objectives, priorities, identification of projects of common interest and broad lines of measures for each one of the three sectors concerned (Transport, Energy and Telecommunications).²⁸

²⁶ Given data availability and the sources found, however, the chapter focuses mainly on the funding, results, impact and added value of the TEN programme and information on the benefits to the UK is included insofar as available. Although the section is drafted with the three TEN sectors in mind (transport, energy and telecommunications), the main focus is on TEN-T (transport) due to data limitations and to the fact that TEN-T has the largest financial framework of the three sectors concerned.

²⁷ For a comprehensive review of the evolution of TEN-T see Butcher (2012).

²⁸ http://ec.europa.eu/ten/index_en.html.

Funding

The TENs are partly funded by the different EU funding programmes and partly by the Member States. Financial support from the EU serves as a catalyst and the Member States are required to provide the largest share of the funding. Projects belonging to the networks are eligible to receive EU co-financing notably from the TEN-budget line as well as from Cohesion and Structural Funds. In addition, TEN projects may benefit from loans and guarantees from the European Investment Bank.

TEN funding is not allocated to Member States directly. Any Member State²⁹ is entitled to bid for TEN funds through competitive calls which are organised usually on an annual basis. Each call has a particular set of criteria that project proposals must meet in order to be eligible for funding. In addition, proposals for TEN-T and TEN-E must also refer to the relevant work programme, which describes the objectives and the results expected. The Commission (with the assistance of the Executive Agency for TEN-T projects) carries out the evaluation and selection of proposals. The process is supported by external experts to ensure that only those proposals which best meet the award criteria are selected for funding. EU funding to TENs can take the form of co-financing of studies and works, interest-rate subsidies, loan guarantees or participation in risk capital funds. The TEN programme funds only relative small portions of total project costs,³⁰ as such it tends to serve as a stimulus for the infrastructure projects, rather than representing a fundamental source of funding without which the project would necessarily not take place.

For 2014-2020, a new integrated funding instrument for investing in the EU infrastructure priorities, Connecting Europe Facility (CEF) has been adopted. With a budget of approximately € 33 billion, it will support targeted infrastructure investments in the fields of transport (€26 billion), energy (€6 billion) and telecommunications (€1 billion).³¹

This section focuses primarily on TEN-T due to data availability and the fact that this Programme has the largest financial framework of the three sectors concerned.³² Limited assessment is also provided for the TEN-E programme.

Financial allocations

The total cost of the entire TEN-T (including EU and national contributions) has been estimated at approximately €900 billion. Out of this sum, €408 billion (€106 billion in 1996-99 and €302 billion in 2000-06) had been spent by 31 December 2006 and €390 billion were expected to be invested during 2007-13³³ (see Table 6.1).

The TEN-T budget has gradually increased over time from the initial €2.23 billion allocated in 1996-1999 to €4.43 billion in 2000-2006 to €8.013 billion in 2007-2013 programme period. National resources contribute the highest share of funding, although the Community contribution has often been decisive in the funding of projects (Steer Davies Gleave 2011).

²⁹ Or, with the agreement of the Member States concerned, international organisations, joint undertakings, or public/private undertakings or bodies.

³⁰ Under TEN, the amount of EU aid to studies is 50 percent, whilst the overall amount granted to priority projects is: 20 percent in the field of transport (with a maximum of 30 percent for cross-border sections of priority projects and a maximum of 10 percent to projects other than priority projects) and 10 percent in the field of energy (EC Regulation 680/2007).

³¹ Council of the European Union (2013), Council adopts regulation on the Connecting Europe Facility, 5 December 2013.

³² For instance, in 2000-06, TEN-T was allocated approximately 90 percent of the TENs budget line, while eTEN was allocated 6 percent and TEN-E 4 percent respectively.

³³ http://ec.europa.eu/transport/themes/infrastructure/ten-t-policy/legal-basis/guidelines_en.htm.

Table 6.1: TEN-T Comprehensive Network³⁴ EU27

TEN-T	1996-99	2000-06	2007-13
Cost (€ billion)			
TEN-T basic network (total cost of completion)	106	302	390
• New Member States (EU12)	5	27	72
• Old Member States (EU15)	101	275	318
Community contribution (€ billion)			
TEN-T programme	2.23	4.43	8.013
Cohesion Fund + ERDF	15.74	25.1	44.2
EIB Loans and guarantees	26.50	41.4	53.00
Total community contribution (€ billion)			
Grants	18.06 (17%)	29.53 (9.8%)	52.2 (13.4%)
Grants and loans	44.56 (41%)	70.93 (22.5%)	105 (27%)
Other resources (national)	63.4 (59%)	231.1 (76.45%)	285 (73%)

Source: http://ec.europa.eu/transport/themes/infrastructure/ten-t-funding-and-financing/doc/funding_figs.pdf.

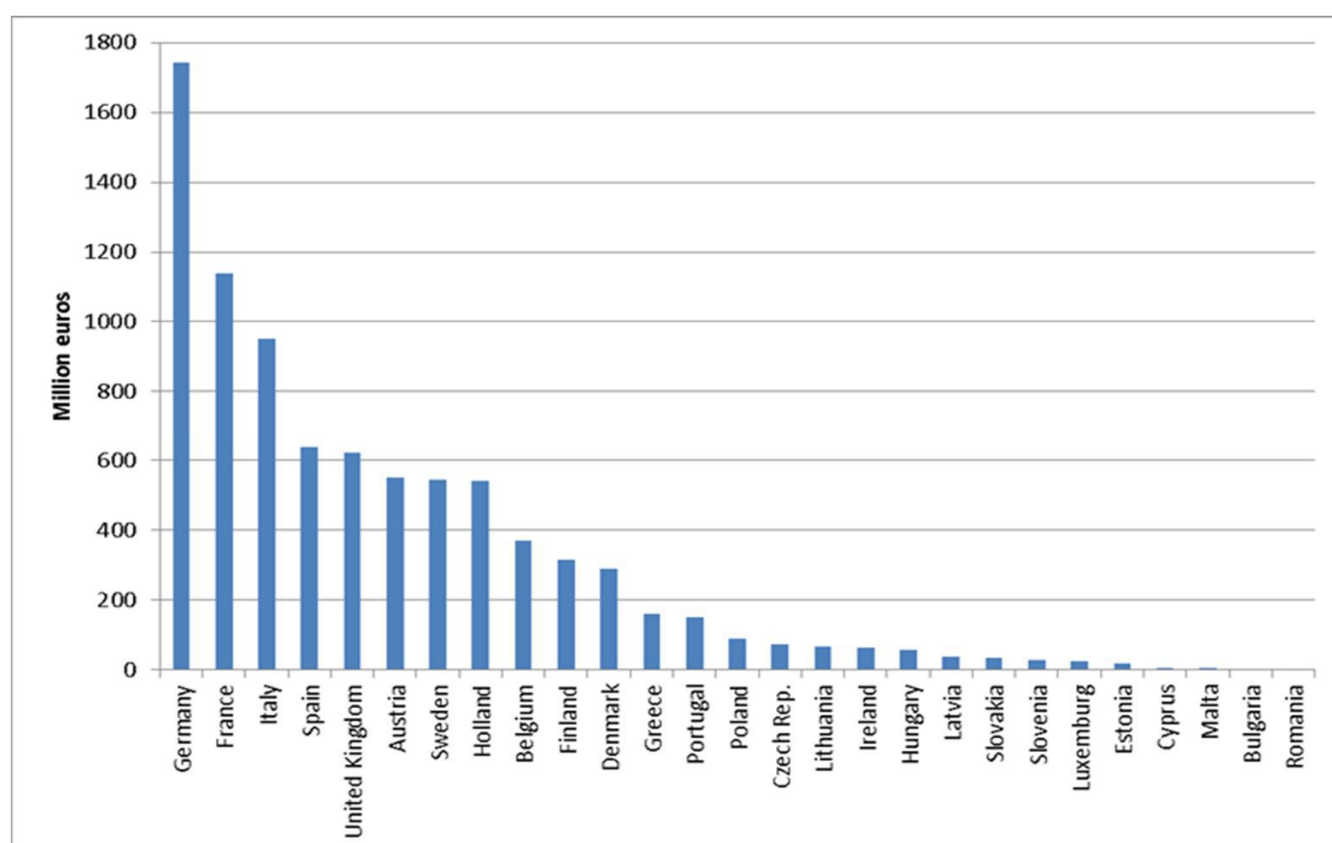
Funding by country

Considering the national shares of funding during the period 1995 to 2012 (Figure 6.1), Germany has received the largest share of TEN-T funding in every programme period (21 percent) followed by France and Italy (both 13 percent). The UK has received the fifth highest share, just over €600 million (approximately seven percent). The figure excludes multinational EU projects³⁵ which are located in and which provide benefits to several EU countries (Bothnian Green Logistics Corridor 2013).

³⁴ The comprehensive network constitutes the basic layer of the TEN-T. It consists of all existing and planned infrastructure meeting the requirements of the Guidelines.

³⁵ These projects represent a share of approximately 39 percent (€5.4 billion) of the total TEN-T funding during 1995-2012.

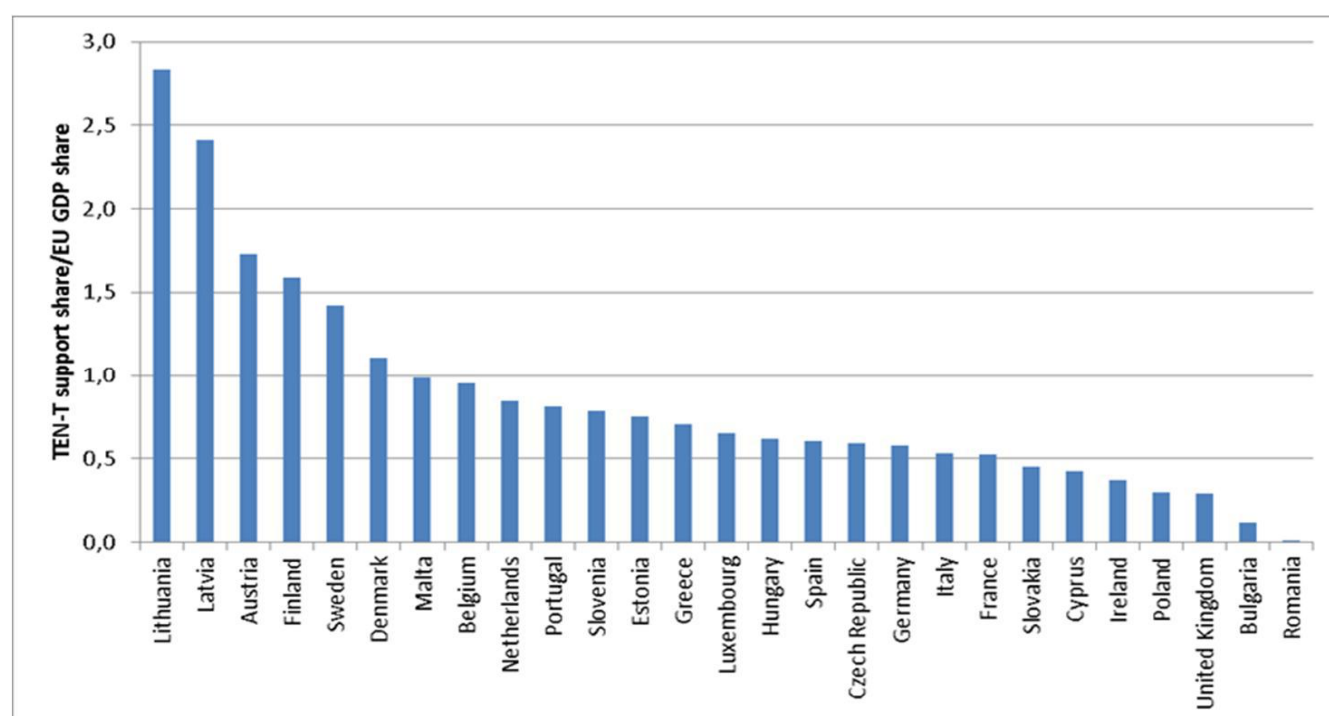
Figure 6.1: TEN-T funding (€ million) by country during 1995-2012 excluding multinational EU projects



Source: Bothnian Green Logistics Corridor (2013), Allocation of TEN-T financing in the Trans-European Transport Network.

Comparing TEN-T funding and EU GDP shares by country over the period of 1995-2012 shows that the TEN-T funding share is considerably higher than the EU GDP share in Lithuania, Latvia and Austria (see Figure 6.2). In the case of Germany, the ranking is rather low despite the fact that Germany received the largest share of TEN-T support over the period concerned and this is due to the fact that Germany also has the highest share of the EU GDP (approximately 25 percent) (Bothnian Green Logistics Corridor 2013). The UK is also positioned low in this ranking.

Figure 6.2: Ratio of TEN-T support share versus EU GDP share by country during 1995-2012



Source: Bothnian Green Logistics Corridor (2013), Allocation of TEN-T financing in the Trans-European Transport Network.

Whilst the financial leverage has been evaluated as rather low, the programme enjoys a high political leverage. For Member States it is more difficult to politically cancel projects once they have been selected as TEN-T projects. For the private sector, this is not likely to play a significant role in the decision to invest in the project, but if there is a strong public commitment to the TEN-T project, funding is less likely to be cancelled or postponed (Steer Davies Gleave 2011). Nevertheless there have been cases of projects that have been cancelled, whether at the initiative of Member States or the Commission, even though projects need to meet financial criteria before they are selected for funding (and are therefore generally viable).³⁶

With respect to TEN-E, the Programme grants are rather small in comparison to the overall project costs. Consequently, the TEN-E budget line has been regarded as rather limited for achieving a higher rate of implementation and development of the networks. However, the funding has been evaluated as playing an important role in terms of co-financing feasibility studies (ECORYS and ECOFYS 2009). Table 6.2 provides an overview of the TEN-E financed projects over the period of 1995-2012, and relative share of the UK in these projects. The overall share for the UK was 5.8 percent during 1995-99. It peaked during 2000-06 at 13.7 percent and came down to 5.6 percent during 2007-12.

³⁶ The Commission may reduce, suspend or cancel aid for a project if there is an irregularity or a failure to comply with one of the conditions, or a significant change in the nature of the project for which the Commission's approval was not requested. Approved aid can also be cancelled if the project has not started within two years following the expected start date (EC Regulation No 67/2010).

Table 6.2 : TEN-E financed projects during 1995-2012

Year	€ Funding total (number of projects)	€ Funding to the UK (number of projects)	Share of UK (%)
2007-12	129,276,208 (109)	7,314,924 (8) ¹	5.6%
2000-06	124,225,124 (97)	17,001,200 (11) ¹	13.7%
1995-99	88,967,900 (112)	5,192,500 (6)	5.8%

Source: EPRC calculations based on

http://ec.europa.eu/energy/infrastructure/ten_e/doc/2013_ten_e_financed_projects_1995_2012.pdf . Notes: ¹ The total funding and number of projects involving the UK includes two projects which were joint projects with the UK and the Netherlands.

For the future, the Commission expects the Connecting Europe Facility investments of €33 billion over the 2014-20 period to act as a catalyst for further funding from the private and public sector for the TENs projects through the use of innovative financial instruments, notably EU project bonds.³⁷

Results and impacts of TENs

The objectives of the TEN-T Programme are so general that evaluation of 'success' is difficult. Nonetheless, the mid-term evaluation of the TEN-T notes that the Programme has been the catalyst for a number of key pieces of transport infrastructure in Europe, and has been playing a part in the structuring of the transport network by allowing transport investments to be focussed. As such the Programme has made a positive contribution to the mobility needs of the European citizens and goods (Steer Davies Gleave 2011).

The TEN-T entails a total of 30 Priority Projects³⁸, out of which seven have been completed and many sections of the others are already in use.³⁹ The United Kingdom has been involved in five projects (in addition to those that cover all Member States, such as Galileo) and there are some specific results which can be noted. For instance, under Priority Project 2 - High speed railway axis Paris-Bruxelles-Köln-Amsterdam-London (PBKAL) - the results include improved railway connections between the United Kingdom and the European mainland, and reduced journey times between the cities concerned (European Commission 2012). Similarly, Priority Project 14 - West Coast Mainland - has made rail journeys more competitive by reducing long distance journey times for both passenger and freight traffic, and improved international connections (European Commission 2012).⁴⁰ Another successful project has been implemented under the Priority Project 13 - Road axis United Kingdom/Ireland/Benelux. This relates to the installation of Intelligent Transport Systems (ITS) solutions on a stretch of the A14 motorway in the UK. Through the use of ITS, the project has helped to remove bottlenecks for both national and

³⁷ European Commission, 'Connecting Europe Facility - Investing in Europe's Growth'.

³⁸ The 30 Priority Projects within the TEN-T have been selected both according to their European added value and their contribution to sustainable development of transport. The funding of Priority Projects constitutes a large share of the TEN-T programme funding.

³⁹ European Commission PPT presentation of March 2013

(http://www.savacommission.org/dms/docs/dokumenti/events/conference_transport_corridor_and_tourist_destination_belgrade_march_2013/c_bernabei-eu_policy_and_financing_possibilities.pdf).

⁴⁰ The project did not receive TEN-T funding in 2007-13. However, it received TEN-T grants totalling € 78.6 million up to 2006 (European Commission 2008b).

international traffic; improved interconnections with ports and airports; increased capacity; improved safety and throughput of traffic; and minimised adverse environmental impact (TEN-T Executive Agency 2011).

It is important to restate, in considering these projects' outputs, that although the priority projects have benefited from EU resources and coordination, the share of funding provided by the Member States has been substantial. For instance, in 2007-13, the share of EU grants and loans for the priority projects represented 30.8 percent of the total, while other (national) contributions represented 69.2 percent.⁴¹

With respect to TEN-E, results for the years 2000-2006 showed progress over the period in terms the contribution to energy network developments. However, given the rates of Community intervention and the number of projects of common interest, assessment of the TEN-E budget line presents limitations (ECORYS and ECOFYS 2009).

Concerning eTEN, the final report notes that it has allowed considerable knowledge and best practice in terms of deployment of services to be acquired through project implementation. Further, the evaluation notes the fulfilment of the objectives of growth, employment and social cohesion and greater participation in the knowledge economy (European Commission 2008a).

It is important to note in considering the broader regional impact that successful regional development and economic growth are impacted by a range of factors and policy instruments, and infrastructure projects are only one component in this. One study has noted accessibility (i.e. the possibility to attract new and often project-related industries and socio-economic activities) as the most important regional impact (European Investment Bank 2006), although other research found that the impact on accessibility varied greatly between regions (TRT Trasporti e Territorio Srl 2006). Long-term benefits have been found to be limited in many cases (European Investment Bank 2006), or only temporary in the regions (TRT Trasporti e Territorio Srl 2006), although port and airport projects have had important employment as well as wider economic implications (European Investment Bank 2006). The TENs have tended to be more beneficial to the regions in central Europe, while some more peripheral areas have not gained a real advantage, although accessibility has improved in absolute terms. In the case of the regions in the UK, the estimated impact of the construction of TENs in 2015 was set to be above average. However, by 2030 the TENs investments were forecast to have a negative impact on most regions in the UK, given the relatively small volume of investments in comparison to more central EU regions. The forecast for 2050 showed that this negative effect is significantly reduced in most of the UK regions, whose accessibility improves in relative terms (TRT Trasporti e Territorio Srl 2006).

Added value of TENs

The TENs budget line has been limited. As a result, resources have been focussed on projects which provide the greatest added value for the network as a whole. These include in particular cross-border sections and projects aimed at removing bottlenecks.

According to the EUB (2006), it is particularly the funding of the cross-border sections that have been the best examples of where EU funding has filled investment gaps and delivered European added value. This has been in line with the policy thinking in the UK, where the Government has

⁴¹ http://ec.europa.eu/transport/themes/infrastructure/ten-t-funding-and-financing/doc/funding_figs.pdf .

supported the continuation of cross-border transport, energy and telecommunications infrastructure projects, which are considered to be particularly important to European growth.⁴²

Conclusions

The brief assessment of TENs provided in this report has largely focused on financial data, and covered in particular the TEN-T programme. The UK has gained an average share of TEN-T funding over the period 1995-2012. However, in terms of ratio between the TEN-T funding share and the EU GDP share over the same period, the ranking of the UK is comparatively low, approximately at the same level as countries such as Ireland and Poland.

The evaluation of results and impacts of the TEN programme is complex not least given the general nature of objectives under programmes such as TEN-T, but also due to the fact that infrastructure is only one factor affecting regional development. Nonetheless, specific UK benefits can be noted at the project level in terms of improved connections between the UK and the European mainland, and reduced journey times.

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⁴² <http://www.publications.parliament.uk/pa/ld201011/ldselect/ldcom/125/12506.htm>

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Conclusions

The aim of the study has been to undertake an assessment of the evidence on EU Cohesion policy concerning whether and to what extent policy objectives have been met, and whether the policy and the related funds have delivered value for money – and an understanding of how this varies within and between fields of intervention. The review also considered EU infrastructure expenditure that can also be expected to contribute to the broad aim of cohesion, specifically the Trans-European Networks.

The research has reviewed the available evidence in relation to: (i) the effectiveness of Structural and Cohesion Funds; (ii) the extent to which the UK has benefited from the Funds; (iii) the value for money of Cohesion policy, including whether all parts of Cohesion policy provide equal value for money; (iv) whether the UK has benefited as a result of expenditure in other Member States; (v) the extent to which the Funds should be targeted at less-developed Member States or regions and disadvantaged groups, and whether the types of activity covered by the Structural Funds are more appropriately funded at the EU, national or regional/local level; (vi) and whether TENS support is effective and in the UK's national interest. This final section draws together the main conclusions from the individual sections.

The effectiveness of Structural and Cohesion Funds

Four main methodological approaches are used to analyse the effectiveness of SCF funding, its socio-economic impact and added value, namely macroeconomic modelling, regression analysis, micro-economic studies using control groups, and qualitative case studies. Each approach has strengths and weaknesses and all face fundamental challenges in relation to data availability and causality. Just like the methods used also the conclusions drawn from each of the four approaches vary and it is thus not possible to distil conclusive evidence on the effectiveness of Structural and Cohesion Funds.

- The two main macroeconomic models applied to SCF funding – HERMIN and QUEST - find clear positive effects, both during the periods of programme implementation and in the longer term (i.e. once spending has ceased). The HERMIN ex-post evaluation of the 2000-06 period estimates that SCF funding of one percent of GDP may generate increases of between 1.1 percent and 4.2 percent in GDP in net recipient Member States (where SCF funding accounts for a discernable percentage of domestic GDP) by 2020, while the QUEST evaluation estimates increases of between 2.0 percent and 6.1 percent.
- Econometric regression analysis typically test for the effect of SCF funding on convergence, defined as faster growth by poorer regions, leading to catching-up in terms of GDP per capital. Results vary widely, depending on the specific technical specifications applied, and the time series and country/regional data-sets used. Some studies find evidence that SCF funding has a positive and statistically significant effect on convergence, while others find no statistically significant impact, or that impact is conditional on exogenous factors (such as the quality of national institutions or macro-economic policies) or on the time-series or geographical data used.
- Micro-economic studies using control groups have tended to report positive, but differing, results. A number of recent studies have shown that recipients of SCF funding under particular schemes have enjoyed stronger outcomes than those experienced by control

groups (e.g. in terms of the leveraging of private sector investment, business productivity, net jobs creation).

- Case study evaluations also generally show positive effects, although these are often stated in gross terms.

In summary, most of the research examined – with the exception of some econometric studies – indicates that Cohesion policy has yielded positive results and contributed to the aims outlined in the Treaty, of other strategic documents of reference and of the programmes through which the policy is operationalised, although there is considerable variation in the extent and types of the results ascribed to the policy.

The extent to which the UK has benefited from the Funds

The UK has been in receipt of Structural Funds expenditure over successive programme periods (and even before the 1989 reform of the Funds). There is however no clear-cut evidence on the benefits derived from such expenditure. Overall, the sources reviewed support the following conclusions.

- The performance of the UK assisted areas over the past two Structural Funds programme periods has been mixed. While the UK as a whole has comparatively well in terms of the main indicators of economic wellbeing, significant regional disparities remain and figures for GVA per head are lower than they were in 2000 for all parts of the UK except London, South East England and Scotland.
- The economic crisis and recession meant that the 2007-13 Structural Funds programmes, which represented only a tiny proportion of UK GDP (around 0.1 percent) and now covered the whole of the country, were operating in a dramatically changed environment from that which was envisaged when the programmes were drawn up. While the requirement to pursue Lisbon Agenda and then Europe 2020 priorities meant that the Structural Funds programmes in the UK were generally reinforcing the direction of UK policies, they could make little more than a *contribution* to attaining policy objectives.
- Measuring this contribution is fraught with methodological and practical difficulties. Nevertheless, the ex post evaluation of the 2000-06 ERDF programmes revealed that interventions were associated with significant numbers of new and safeguarded jobs, land redevelopment, increases in SME turnover, innovation projects, training and skills development, the creation of community enterprises and other results. The 2007-13 period has not yet been assessed ex post, but interim and other evaluation work also reveals significant achievements despite a challenging economic climate, although overall impact on economic performance may have been modest.
- For the most part, Structural Funds have been used in the UK to co-fund domestic policies and spending programmes. This makes it difficult to disentangle the Funds' specific contribution. Nevertheless, research has highlighted several areas where EU Structural Funds have resulted in economic development activity being expanded, innovating on, or otherwise additional to that which would have taken place in the absence of Structural Funds. The programmes have also entailed a considerable degree of leverage of other funding sources, especially private funds.
- Beyond the outputs and results generated by Structural Funds programmes, the implementation of EU Structural Funds has had a valuable influence on the delivery of economic development policy in the UK, through the longer planning period allowed by

the Structural Funds programme cycle, the benefits of the partnership approach to economic development, and an enhanced capacity to respond to regional needs and crisis situations.

The value for money of Cohesion policy

In the field of Cohesion policy, thorough appraisals of value for money have been carried out only to a very limited degree, mostly by the European Court of Auditors (ECA) or by the European Commission through its evaluation work. Very little specific evidence is available on the value for money of UK ERDF programmes.

Where value for money assessments have been attempted, they have been hindered by methodological and data limitations. In particular, there are methodological difficulties associated with variations in contextual factors between countries and regions, relating, for example to geography in the case of infrastructure projects, differences in wage and land costs, and cyclical and structural disparities in regional economic performance (which e.g. may shape effectiveness indicators such as jobs created). These constraints, along with definitional differences, make it virtually impossible to draw reliable comparative conclusions on the value for money of different areas of spending or across countries/regions.

Notwithstanding these limitations, the sources reviewed provide some limited insights on the value for money of Cohesion policy, both in the EU as a whole and specifically in the UK.

First, delays and cost overruns have tended to affect negatively the VFM of major infrastructure co-funded investments (roads, railways, urban transport systems, water infrastructure, energy). However, the extent of these delays and cost escalation is considered to be in line with major projects funded from national sources or by other international organisations.

Delays and cost overruns were also found in recent audits of Cohesion-policy co-funded projects in the fields of roads and seaports (including, but not only, major projects). In the field of roads, projects achieved the intended results only in part and at a cost that could have been lower. In the field of seaport infrastructure, effectiveness and VFM were reduced by inadequate costing approaches, the co-financing of projects that had already been funded with domestic resources, and the poor monitoring and supervision of results.

No comparatively meaningful evidence is available on the VFM of aid schemes for business projects or other forms of intervention provided under UK Structural Funds programmes.

Cohesion policy has often been criticised on value for money grounds for the burdensome nature of its administrative procedures. However, the only ever systematic study on this subject concluded that the ERDF and Cohesion Fund do not involve particularly high administrative costs, compared to other similar programmes. In the UK, a 2007 House of Lords inquiry found that the total annual administrative costs to the public sector in England and the devolved administrations represented around 2.3 percent of total financial allocations, which it did not regard as costly bureaucracy.

The benefits to the UK from expenditure in other Member States

EU Member States derive benefits from Cohesion policy investments undertaken in other countries. These benefits are direct, derived from firms winning contracts for EU-funded projects, and indirect associated with increased export of goods and services.

Research on the economic returns to net payer countries of Cohesion policy expenditure in the 2000-04 period found positive impacts on UK GDP and employment, largely due to the UK's significant trade with Ireland and Spain. A later study evaluated returns to the EU15 countries as a result of the implementation of Cohesion policy over the 2004-15 period in the Visegrád countries (Czech Republic, Hungary, Slovakia and Poland). For the UK, there were substantial returns in terms of contracts awarded to UK firms, ownership of capital and increased trade. When the total returns are related to the budget contributions of individual net payer countries, the returns for Germany, Ireland and Luxembourg exceed their budget contributions. For the United Kingdom, the returns are equivalent to 41 percent of its budget contributions.

The territorial governance and targeting of the Funds

The Multi-level Governance model of policy implementation pioneered in EU Cohesion policy is one the policy's main areas of added value and is credited with having a significant impact on regional policy practice in the Member States and regions. The MLG model can contribute to greater policy effectiveness, legitimacy and transparency in decision-making processes, as well as greater commitment and ownership of programme outputs, but the effects on regional development are extremely difficult to quantify.

Multi-level governance also poses challenges, however, particularly in the area of financial management. The so-called shared management mode, with implementation responsibility delegated to the Member States and regions while granting the Commission overall responsibility for budgetary compliance, poses high delegation risk and an ongoing problem of high level of irregularities. This has forced the Commission to introduce more stringent requirements and stricter enforcement of compliance, resulting in higher administrative workload and bureaucracy for programme managers and implementing bodies with negative consequences for how the policy is perceived. In several richer countries, including the UK, beneficiaries are avoiding applying for Structural Funds if alternative funding sources are available.

Geographical concentration is another core principle underpinning Cohesion policy. Over time, the targeting of Cohesion policy has evolved from focusing on designated regions characterised by underdevelopment, industrial restructuring or rural problems to a policy that is available to all regions throughout the EU. In part, this reflects the shift in the policy's objectives, away from the traditional concern with reducing regional disparities to promoting growth and competitiveness across the whole of the EU.

The changes in targeting are also due to the dynamics of the EU budget negotiation, where Cohesion policy has been used as an 'adjustment variable' to ensure that each Member State gets a politically acceptable net balance. Hence, the eligibility requirements and financial allocation mechanisms have been adapted to ensure that the net beneficiaries are also able to benefit substantially from Cohesion policy funding. The policy also has a large number of interest groups, in rich as well as poor countries, that lobby hard to ensure a continued share of the Funds.

There are strong arguments for reconsidering the targeting of Cohesion policy on the grounds of economic efficiency and budgetary added value. There are viable alternative models – within the existing approach to allocate funding at the Member State level or to shift the allocation criteria to prioritise growth opportunities, or to restrict the allocation of the Funds to the less-developed countries and regions. However, arguments for the change invariably underplay or ignore the political factors: the strength of institutional support at EU level and in a significant number of Member States; and the need for a credible political strategy for making the case for change internationally and achieving unanimous agreement. EU Cohesion policy is one of the areas of

EU policymaking where it is possible to quantify the gains and losses of policy change, and without a strategy that can secure agreement from all Member States, even a well—grounded case for change will not succeed.

The benefits to the UK from the TENS programme

The assessment of TENs has largely focused on financial data, and covered in particular the TEN-T programme. The UK has gained an average share of TEN-T funding over the period 1995-2012. However, in terms of the ratio between the TEN-T funding share and the EU GDP share over the same period, the ranking of the UK is comparatively low, approximately at the same level as countries such as Ireland and Poland.

The evaluation of results and impacts of the TEN programme is complex not least given the general nature of objectives under programmes such as TEN-T, but also due to the fact that infrastructure is only one factor affecting regional development. Nonetheless, specific UK benefits can be noted at the project level in terms of improved connections between the United Kingdom and the European mainland, and reduced journey times.

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