

George Gelauff
Isabel Grilo
Arjan Lejour
Editors

Subsidiarity and Economic Reform in Europe

 Springer

Subsidiarity and Economic Reform in Europe

George Gelauff · Isabel Grilo · Arjan Lejour
Editors

Subsidiarity and Economic Reform in Europe

 Springer

George Gelauff
Arjan Lejour
CPB Netherlands Bureau
for Economic Policy Analysis
Van Stolkweg 14
2585 JR The Hague
Netherlands
g.m.m.gelauff@cpb.nl
a.m.lejour@cpb.nl

Isabel Grilo
European Commission
DG Enterprise and Industry
Avenue d'Auderghem 45
1040 Brussels
Belgium
isabel.grilo@ec.europa.eu

ISBN 978-3-540-77245-3

e-ISBN 978-3-540-77264-4

DOI 10.1007/978-3-540-77264-4

Library of Congress Control Number: 2008922298

© 2008 Springer-Verlag Berlin Heidelberg

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilm or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the German Copyright Law of September 9, 1965, in its current version, and permission for use must always be obtained from Springer. Violations are liable to prosecution under the German Copyright Law.

The use of general descriptive names, registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Production: le-tex Jelonek, Schmidt & Vöckler GbR, Leipzig

Cover design: WMX Design GmbH, Heidelberg

Printed on acid-free paper

9 8 7 6 5 4 3 2 1

springer.com

Preface

Sometimes the European Union is seen as a big success, sometimes it is not. It is successful in integrating the market economies of 27 European countries and 500 million citizens in fifty years time. Now it is the biggest economy in the world, but in many areas other than the Internal Market the role of the EU is much more limited. Besides historical reasons, other motives for the division of competences between the EU and the Member States explain the current role of the EU. In this book the authors discuss, mainly from an economic perspective, this division of responsibilities for economic policy. They concentrate on education and innovation, internal market policy and the common agricultural policy, corporate income taxation, regional policy and transport policy. They ask whether it is efficient to assign these policies to the national or the European level and try to explain the current division of these responsibilities. This leads to interesting conclusions on the role of the European Union and the Member States in economic policy making which are also very relevant for economic reforms triggered by the Lisbon strategy.

The chapters in this book are based on contributions presented at the conference *Subsidiarity and Economic Reform in Europe* in Brussels, November 8-9, 2006.¹ The conference was organized by the European Commission, CPB Netherlands Bureau for Economic Policy Analysis and the Dutch Ministry of Economic Affairs.² The Ministry also provided financial support for the publication of this book, which is much appreciated. We, as editors of the book and organizers of the conference, want to express our gratitude to everybody who supported the conference and publication of the book. In particular, we want to thank Stephan Raes, who was very active in initiating this project within the Dutch Ministry of Economic Affairs, and Jacques Pelkmans for his support in composing the program and for recommending very qualified authors. Moreover, we are grateful to Gert-Jan Koopmans for giving support from the European Commission

¹ See: www.cpb.nl/goto/subsidiarity/.

² Note that all contributions in this book are written on a personal title and do not necessarily reflect the views of the European Commission, CPB or the Dutch Ministry of Economic Affairs.

and for hosting a small workshop, as appetizer for the conference. We enjoyed our work as editors. Our job was made easier by the enthusiastic and prompt responses of the contributors and above all by the accurate lay-out editing work of Jeannette Verbruggen (CPB).

The editors,
George Gelauff
Isabel Grilo
Arjan Lejour

Contents

Preface	v
List of Contributors	xiii
1 Subsidiarity for Better Economic Reform?	1
<i>George Gelauff, Isabel Grilo and Arjan Lejour</i>	
1.1 Introduction	1
1.2 An economic perspective on subsidiarity	4
1.3 Education and innovation	5
1.4 The Internal Market and agricultural policy	9
1.5 Taxation	11
1.6 Regional and transport policy	13
1.7 Conclusion	15
References	18
2 Assessing Subsidiarity	19
<i>Sjef Ederveen, George Gelauff and Jacques Pelkmans</i>	
2.1 Introduction	19
2.2 Fiscal federalism: the basics	21
2.3 Government imperfections	26
2.4 Decision making in legislature	32
2.5 Conclusion: assessing subsidiarity	37
References	39
3 Who Shall Decide What? Citizens' Attitudes Towards Political Decision Making in the EU	41
<i>Joachim Ahrens, Martin Meurers and Carsten Renner</i>	
3.1 Introduction	41
3.2 Measuring citizens' preferences	42
3.3 Attitudes of citizens in the EU15	45
3.4 Attitudes of citizens in the new member countries	52
3.5 Conclusion	55
References	57

4 Subsidiarity and Economic Policy.....	59
<i>Jan Willem Oosterwijk</i>	
4.1 Introduction: subsidiarity.....	59
4.2 The European policy agenda: more, less, different	60
4.3 Political Economy.....	61
4.4 Public support.....	63
4.5 Conclusion.....	64
5 Higher Education Reform and the Renewed Lisbon Strategy: Role of Member States and the European Commission.....	65
<i>Frederick van der Ploeg and Reinhilde Veugelers</i>	
5.1 Introduction	65
5.2 Challenges of higher education in Europe.....	67
5.3 Reforming higher education in Europe.....	80
5.4 What is the role of the EU?	86
5.5 Some concluding remarks	93
References	95
6 Higher Education, Mobility and the Subsidiarity Principle	97
<i>Marcel Gérard</i>	
6.1 Introduction	97
6.2 Mobile students: from the Production to the Origin Principle.....	98
6.3 Assigning responsibility for attracting mobile researchers.....	105
6.4 Conclusion.....	109
References	110
7 European Coordination of Higher Education.....	113
<i>Sjef Ederveen and Laura Thissen</i>	
7.1 Introduction	113
7.2 Student mobility: developments and determinants.....	114
7.3 Economies of scale: does size matter?.....	119
7.4 Cross-border externalities.....	121
7.5 Conclusions and implications.....	124
References	126
8 On the Roles and Rationales of European STI-Policies	129
<i>Rahel Falk, Werner Hölzl and Hannes Leo</i>	
8.1. Introduction	129
8.2 Rationales for supranational STI policy	130
8.3 STI policy and subsidiarity in practice	134
8.4 Conclusion.....	140
References	141

9 Why European Innovation Policy?	143
<i>Albert van der Horst, Arjan Lejour and Bas Straathof</i>	
9.1 Introduction	143
9.2 Innovation policy and the principles of subsidiarity.....	144
9.3 Public expenditure on R&D.....	146
9.4 Intellectual property rights.....	153
9.5 Conclusions	155
References	156
10 Integrating Regulated Networks Markets in Europe	157
<i>Jordi Gual</i>	
10.1 Introduction	157
10.2 Strategies for market integration	158
10.3 What is different about network services?.....	161
10.4 The integration strategy in specific network services: banking, electricity and telecoms	165
10.5 Concluding remarks.....	172
References	174
11 Subsidiarity and the Internal Services Market	177
<i>Arjan Lejour</i>	
11.1 Introduction	177
11.2 The Services Directive.....	178
11.3 The benefits of integrated services markets.....	180
11.4 Diversity	181
11.5 Political economy issues.....	185
11.6 Conclusions	186
References	188
12 Agriculture Policy: What Roles for the EU and the Member States?	191
<i>Harald Grethe</i>	
12.1 Introduction	191
12.2 Overview of EU agricultural policy	192
12.3 Costs and benefits of centralization.....	195
12.4 Why is the CAP not in accordance with the subsidiarity principle? Political economy considerations and dynamics	204
12.5 Conclusions on agricultural policy - How to get closer to the ideal?	210
References	214

13 Tax Policy and Subsidiarity in the European Union	219
<i>Michael Keen and Ruud de Mooij</i>	
13.1 Introduction	219
13.2 Principles for the allocation of taxing powers	220
13.3 Tax coordination in the EU	229
13.4 Why tax coordination fails	232
13.5 Administrative measures as a substitute for policy choices	236
13.6 Conclusions	238
References	239
14 Coordinating Corporation Taxes in the European Union: Subsidiarity in Action!	243
<i>Sjibren Cnossen</i>	
14.1 Introduction	243
14.2 Brief Survey of Corporation Taxes.....	244
14.3 Bottom-up approach: tax coordination by Member States	250
14.4 Concluding comment.....	256
References	257
15 Code of Coordination for Corporate Taxation	259
<i>Albert van der Horst</i>	
15.1 Introduction	259
15.2 Competition in tax rates.....	261
15.3 Tax base.....	265
15.4 Subsidiarity in corporate taxation.....	271
References	272
16 Corporate Income Taxation and the Subsidiarity Principle.....	273
<i>François Pouget and Eloïse Stéclebout-Orseau</i>	
16.1 Introduction	273
16.2 Corporate taxation coordination in the European Union	276
16.3 Analysing strategic interactions.....	278
16.4 Policy conclusions and areas for further work.....	286
References	289
17 Subsidiarity in Regional Policy.....	291
<i>Iain Begg</i>	
17.1 Introduction	291
17.2 The rationale for EU regional policy	292
17.3 Regional policy effectiveness.....	298
17.4 The Structural Funds in economic governance.....	301

17.5 A regional policy subsidiarity test?	304
17.6 Concluding comments	307
References	309
18 Regional Policy as a Means to Curb Immigration.....	311
<i>Robert Fenge and Volker Meier</i>	
18.1 Why does a EU regional policy exist?.....	311
18.2 Potential migration and its impact on unemployment	314
18.3 Regional policy against undesired immigration	316
18.4 Regional policy and subsidiarity	320
References	321
19 Subsidiarity and Transport Policy in Europe:	
What EU-Subsidies Do We Need for the TEN?	325
<i>Bruno de Borger and Stef Proost</i>	
19.1 Introduction	325
19.2 The economics of infrastructure provision by Member States in the presence of spillovers	326
19.3 Pricing and capacity choices by Member States or regions in the absence of EU intervention.....	332
19.4 What subsidy rules make sense for TEN investments?	337
19.5 Conclusions	339
References	340

List of Contributors

Ahrens, Joachim

Private University of Applied Sciences Göttingen
Weender Landstraße 3-7, 37073 Göttingen, Germany
e-mail: ahrens@pfh-goettingen.de

Begg, Iain

European Institute, London School of Economics and Political Science
Houghton Street London WC2A 2AE, United Kingdom
e-mail: iain.begg@lse.ac.uk

Cnossen, Sijbren

University of Maastricht
PO Box 616, 6200 MD Maastricht, the Netherlands
CPB Netherlands Bureau for Economic Policy Analysis
PO Box 80510, 2508 GM The Hague, the Netherlands
e-mail: sijbren.cnossen@cpb.nl

De Borger, Bruno

Department of Economics, University of Antwerp
Prinsstraat 13, 2000 Antwerp, Belgium
e-mail: bruno.deborger@ua.ac.be

De Mooij, Ruud

Erasmus University, Rotterdam
PO Box 1738, 3000 DR Rotterdam, the Netherlands
CPB Netherlands Bureau for Economic Policy Analysis
PO Box 80510, 2508 GM The Hague, the Netherlands
e-mail: ruud.de.mooij@cpb.nl

Ederveen, Sijf

Directorate General for Economic Policy, Ministry of Economic Affairs
PO Box 20101, 2500 EC The Hague, the Netherlands
e-mail: S.Ederveen@minez.nl

Falk, Rahel

WIFO Austrian Institute of Economic Research
P.O. Box 91, 1103 Vienna, Austria
e-mail: rahel.falk@wifo.ac.at

Fenge, Robert

Ifo Institute for Economic Research
Poschingerstr. 5, 81679 Munich, Germany
e-mail: fenge@ifo.de

Gelauff, George

CPB Netherlands Bureau for Economic Policy Analysis
PO Box 80510, 2508 GM The Hague, the Netherlands
e-mail: george.gelauff@cpb.nl

Gérard, Marcel

Louvain School of Management, FUCaM, Catholic University of Mons
Chaussée de Binche 151, 7000 Mons, Belgium
e-mail: marcel.gerard@fucam.ac.be

Grethe, Harald

Department of Agricultural Economics and Social Sciences, Faculty of
Agriculture and Horticulture, Humboldt University of Berlin
Unter den Linden 6, 10099 Berlin, Germany
e-mail: harald.grethe@agrar.hu-berlin.de

Grilo, Isabel

European Commission, Directorate General Enterprise and Industry
Avenue d'Auderghem 45, 1040 Brussels, Belgium
e-mail: Isabel.Grilo@ec.europa.eu

Gual, Jordi

IESE Business School
Av Pearson 21, 08034 Barcelona, Spain
e-mail: gual@iese.edu

Hözl, Werner

WIFO Austrian Institute of Economic Research
P.O. Box 91, 1103 Vienna, Austria
e-mail: werner.hoelzl@wifo.ac.at

Keen, Michael

Fiscal Affairs Department International Monetary Fund
700 19th Street, N.W., Washington DC 20431 USA
e-mail: mkeen@imf.org

Lejour, Arjan

CPB Netherlands Bureau for Economic Policy Analysis
P.O. Box 80510, 2508 GM The Hague, the Netherlands
e-mail: arjan.lejour@cpb.nl.

Leo, Hannes

WIFO Austrian Institute of Economic Research
P.O. Box 91, 1103 Vienna, Austria
e-mail: hannes.leo@wifo.ac.at

Meier, Volker

Ifo Institute for Economic Research
Poschingerstr. 5, 81679 Munich, Germany
e-mail: meier@ifo.de

Meurers, Martin

Federal Ministry of Economics and Technology, Division Fiscal Policy
and Federal Budget, Scharnhorststraße 34-37, 10115 Berlin, Germany
e-mail: martin.meurers@bmwa.bund.de

Oosterwijk, Jan Willem

College van Bestuur, Erasmus University Rotterdam
PO Box 1738, 3000 DR Rotterdam, the Netherlands
e-mail: oosterwijk@cvb.eur.nl

Pelkmans, Jacques

Department of European Economic Studies, College of Europe
Dijver 11, 8000 Brugge, Belgium
Vlerick School of Management
Reep 1, 9000 Gent, Belgium
e-mail: jpelkmans@coleurop.be

Pouget, François

University of Paris Dauphine EURISCO
1 Place du Maréchal de Lattre de Tassigny, 75016 Paris, France
e-mail: francois.pouget@dauphine.fr

Proost, Stef

Department of Economics, Catholic University of Leuven
Naamsestraat 69, 3000 Leuven, Belgium
e-mail: stef.proost@econ.kuleuven.ac.be

Renner, Carsten,

IDS GmbH - Analysis and Reporting Services, ALLIANZ GROUP
Königinstrasse 28, 80802 Munich, Germany
e-mail: carsten.renner@ids.allianz.com

Stéclebout-Orseau, Eloïse

European Central Bank
Kaiserstraße 29, 60311 Frankfurt am Main, Germany
e-mail: Eloise.Orseau@ecb.europa.eu

Straathof, Bas

CPB Netherlands Bureau for Economic Policy Analysis
P.O. Box 80510, 2508 GM The Hague, the Netherlands
e-mail: bas.straathof@cpb.nl

Thissen, Laura

ECORYS Netherlands
P.O. Box 4175, 3006 AD Rotterdam, the Netherlands
e-mail: laura.thissen@ecorys.com

Van der Horst, Albert

CPB Netherlands Bureau for Economic Policy Analysis
P.O. Box 80510, 2508 GM The Hague, the Netherlands
e-mail: albert.van.der.horst@cpb.nl

Van der Ploeg, Frederick

Department of Economics, University of Oxford
Manor Road Building, Manor Road, Oxford OX1 3UQ, UK

Veugelers, Reinhilde

Katholieke Universiteit Leuven and EC-BEPA
Naamsestraat 69, 3000 Leuven, Belgium
e-mail: reinhilde.veugelers@econ.kleuven.be

1 Subsidiarity for Better Economic Reform?

George Gelauff, Isabel Grilo and Arjan Lejour

1.1 Introduction¹

After the successful conclusion of the Internal Market program in 1992, the scope of the European Union has gradually been widened to include areas of public policy that previously remained within the more or less exclusive sovereignty of the Member States. Such areas include monetary and budgetary policy (through the Stability and Growth Pact, SGP and the Economic and Monetary union, EMU), energy and telecommunications, environmental policy, social policy, innovation policy and immigration policy. Although the extent of European involvement widely differs, it seems nevertheless clear that Europe includes increasingly wider elements of the public domain.

The causes for this widening of the scope are diverse. Clearly, the introduction of the EMU and the SGP were meant to strengthen the European economy per se by handing over sovereignty in monetary and (partly) budgetary policy to Frankfurt and Brussels. The liberalization trend in Member States implied that (semi) public services (energy, health care) increasingly crossed borders and had to fit within existing European schemes of regulation, competition policy and state aid. With innovation being a target in the Lisbon agenda, European cooperation in innovation policy is being strengthened. Cross border environmental problems in Europe legitimize a common European approach. Other areas are included

¹ The views expressed here are those of the authors and should not be attributed to the European Commission or CPB.

in the European agenda to show European citizens that European integration is not simply an ‘economic’ affair, but it also addresses social concerns.

Whatever the causes of a more prominent role for Europe are, the consequences are clear: in their public policy making Member States increasingly cooperate. Although this brought new ‘softer’ coordination mechanisms to the fore (such as the open method of coordination), it nevertheless implied that to some extent Member States relinquished part of their national sovereignty in such areas. This process has proceeded considerably. The tendency appears to be that if there is a ‘European problem’ (meaning a problem that regards all Member States) European solutions are to be considered.

However, from a strictly economic perspective this *Europeanization* of public policy is not necessarily justified. The desirability of further European policy actions is guided by the subsidiarity principle. Article 5 of the 1997 Treaty of Amsterdam states: “In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can, therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community.” The dynamics of the division of labour between European and national authorities do not always follow the subsidiarity principle. In some cases, the prevailing policy agenda goes beyond what would be desirable from a strictly economic perspective. An examples concerns binding directives on labour standards (maximum working time or minimum rest periods), while empirical support for the risk of social dumping is hard to find.² In other areas more European involvement may be required than is currently considered. For instance, as part of the Lisbon process the open method of coordination has been applied to the 3% R&D target. However, international R&D spillovers may demand a stronger form of coordination for innovation policy.³

Also in political terms *Europeanization* has recently gained momentum in the public debate. In some circles, the negative outcomes of the referenda on the European constitution in France and the Netherlands were attributed to perceptions of too much involvement of Europe in national affairs. This would reflect the widely diverging views of European citizens on the desirability of European solutions for different policy areas, the distribution of effects among Member States, as well as the complex and heterogeneous policy momentum in different public domains. However,

² See CPB/SCP (2003) or de Mooij and Tang (2003).

³ See Falk et al. (Chapter 8) and Van der Horst et al. (Chapter 9).

Ahrens et al. (Chapter 3) confirm the findings of Alesina et al. (2001) that preferences of citizens in the EU15 are 'on average in line with an economically rational allocation of political domains to national and supranational decision levels'. They mainly observe controversies among citizens of the EU15 on policies relating to immigration, asylum and refugees, defence and the labour market. Yet, Ahrens et al. do find a significant difference between the EU15 and the new Member States, more precisely the EU10. Citizens in the new Member States have a stronger preference for centralization: they prefer EU decision making in 22 out of 25 policy areas, in contrast with 11 out of 25 for citizens in the EU15. So as a consequence of enlargement the EU is confronted with increased heterogeneity.

The division of competences between the Union and the Member States becomes particularly important in economic reform areas. In these areas substantial policy adjustments take place, which frequently raise considerable challenges for policy makers. The New Lisbon Strategy for Growth and Jobs (EC, 2005) has a large potential to boost Europe's economic performance.⁴ Yet, it requires considerable efforts to devise policy measures to realize that potential. That raises the question of subsidiarity: who has the main responsibility for initiation, design and implementation of reform policies, the Union, the Member States in their National Reform Programmes or both?

This book reviews subsidiarity in four economic reform areas: education and innovation; the Internal Market and agricultural policy; corporate taxation; and regional and transport policy. These areas cover a substantial part of the key areas of the renewed Lisbon strategy.⁵ At the same time European policy making concerns such a broad range of policies that it is impossible to give a complete review. The four areas have been selected because of their policy relevance, because they raise interesting new issues concerning subsidiarity and because some economic research is under way to assess subsidiarity in these areas.

Moreover, the book takes an economic policy perspective. Authors use economic theory and empirical research in economics to analyse issues of subsidiarity. However, they leave technicalities aside and focus on policy relevant considerations. As such they aim at identifying policy options and policy relevant trade-offs that pertain to subsidiarity. This chapter

⁴ Gelauff and Lejour (2006) calculate that if Europe would really reach the goals it set in 2000, Europe's Gross Domestic Product could increase by at least 12%.

⁵ Agricultural policy is not part of the reform areas covered by the Lisbon strategy although the Common Agricultural policy has been recently reformulated.

continues with a brief discussion on the economic analysis of subsidiarity in the next section. Subsequently, in four sections it surveys the main lessons learned for each of the economic reform areas. The last section offers some general conclusions.

1.2 An economic perspective on subsidiarity

Ederveen et al. (Chapter 2) present a framework for an economic analysis of subsidiarity. It starts with a functional test for subsidiarity, which centres on the trade-off between preference matching as a motive for decentralization and two motives for centralization: economies of scale and cross-border externalities. Heterogeneity of preferences among Member States is reason for decentralization of decision making in Europe. Yet, when the benefits of acting in common outweigh preference heterogeneity, economic analysis suggests that it is more efficient to shift decision power to a higher level. When policies are costly, for instance due to fixed costs, economies of scale are a reason to combine resources and act together. Common policies in international trade (WTO) or combined funding of large-scale research organizations are a case in point. Cross-border externalities arise when a Member State does not take into account that its policy has consequences for other Member States. These consequences may range from positive spillovers from R&D to negative spillovers from trade barriers in the Internal Market.

The differences that sometimes exist between the current practice and the desirable level of coordination according to the functional subsidiarity test raise the issue of the political economy of European coordination. Political economy considerations point at government imperfections or characteristics of the process of decision making in the EU as a second angle to review European coordination. Ederveen et al. include these considerations in their framework to assess subsidiarity. The functional subsidiarity test is based on the premise of benevolent governments and other public actors and on the absence of pressure groups. In reality public actors may not always act in the public interest but may pursue their own objectives, such as expansion of their influence or power. Also they may be (partly) captured by interest groups. Decentralization may then enable citizens to better control public actors or may discipline public actors through policy competition between jurisdictions. In contrast, effective monitoring by Member States may support centralization in the EU. In addition, policy learning may both benefit from experimentation among decentralized authorities and from information exchange and commitment building at a central

level. Decision making at the centralized level comes with two main risks. Overprovision of locally beneficial policies may result, when decision making takes place under a norm of deference (“I’ll-scratch-your-back-if-you-scratch-mine”). Common pool problems arise, when Member States have an incentive to draw as much as possible on the common budget for projects that locally provide benefits. Decentralization may prevent these inefficiencies of centralized decision making.

Last but certainly not least, European coordination is a dynamic process. In the past various developments, such as increasing pressure on the environment, have called for a coordinated response. In the future, trends may affect the balance between centralization and decentralization in Europe. For instance, internationalization may affect economies of scale in innovation or may increase demand for internationally mobile employees. In addition, dynamic feedbacks exist between policy measures in different fields. Liberalization (for instance of energy markets or health care) brings policy areas within the confines of the Internal Market that previously were delivered by national public providers. Trends and dynamic feedbacks may intensify (diminish) external effects and economies of scale and thus may add to (limit) motives for European coordination.

1.3 Education and innovation

In the field of education, subsidiarity primarily concerns higher education. Indeed, students mobility is likely to occur at significant intensity only at this level making potential cross-border externalities or economies of scale only relevant to higher education.⁶ In addition, higher education relates to innovation, because of the direct linkages between the two areas and their significance for productivity growth.

1.3.1 Higher education

Van der Ploeg and Veugelers (Chapter 5) trace out a long series of reform measures in higher education. Governance of universities should provide more room for autonomy, for instance by allowing universities to set differentiated tuition fees. At the same time governance should raise accountability of universities, among other things by providing resources to university on the basis of academic excellence. Higher fees should increase

⁶ At lower levels of education EU involvement may still be warranted to enhance policy-learning among Member States through open coordination processes.

private investment in higher education, in line with high and rising private rates of return, with income contingent loans providing insurance against the risk of income loss due to unemployment after graduation. As such, these reform measures primarily affect national institutions and are thus principally the responsibility of the Member States.

Competition between universities may enhance the quality of education. International competition in higher education points at a potential role for the EU. The main reason is that economies of scale and scope may characterize a European market for higher education (see Figure 1.1). To further integrate the Internal Market for higher education, Van der Ploeg and Veugelers recommend that besides facilitating policy learning, the EU should finance modernization activities by Member States and universities out of the Structural Funds. Moreover, the EU may increase the transparency of the higher education market by urging Member States to implement the Bologna reforms and by promoting cross-recognition of qualifications and a standardized system of quality indicators to evaluate universities. In that way, further transparency may stimulate student mobility, which would create a positive feedback on the process of competition and quality improvement as Figure 1.1 shows.

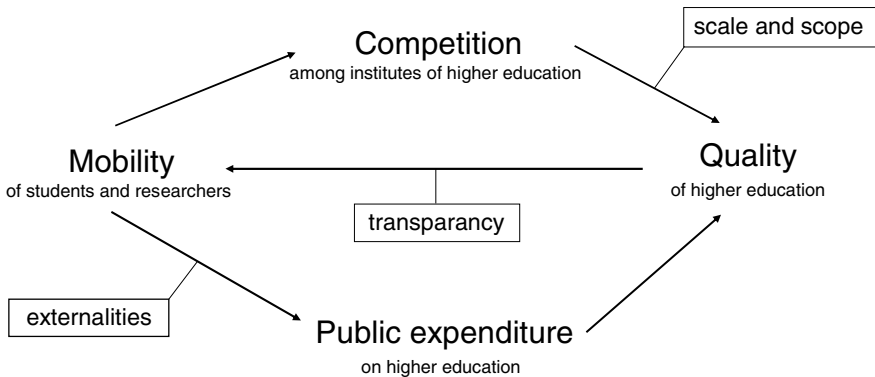


Fig.1.1. Interdependencies affecting the assessment of subsidiarity in higher education

However, Ederveen and Thissen (Chapter 7) find little empirical support for economies of scale in higher education. The quality of universities in a country is unrelated to the size of the population in that country. Since there is hardly any empirical evidence that larger countries provide better education, extending the higher education market to the EU as a whole is not guaranteed to increase quality.

Competition between universities only succeeds when students and researchers are sufficiently mobile to move to the best universities (Figure 1.1). Currently, mobility is rather low. Ederveen and Thissen find that geographical and cultural distance plays an important role for students who enrol as regular students in other European countries. Students prefer to study not too far from home. They also react to differences in quality, but the effect of distance is stronger.

At the same time international mobility may create free rider problems (Gérard, Chapter 6). Usually in the EU students only pay a (small) part of their education through tuition fees. In that case students, who study abroad and return home afterwards, benefit from investments by the foreign country in higher education, whereas the revenues in terms of increased human capital accrue to the home country. This generates an incentive for the home country to free ride on higher education facilities abroad, which restrains public expenditure in higher education (compare Figure 1.1).

The externality disappears when funding follows the students, i.e. when the choice of a student for a specific university abroad results in that university also obtaining the funding to finance the student's education. Gérard analyses a way to internalize the externality through internationally portable student vouchers. Gérard argues that vouchers could be organized through interjurisdictional cooperation between Member States, limiting the role of the EU to facilitating cooperation, for instance by providing a model treaty.

To completely remove the externalities the vouchers would have to cover the full cost of education. However that would give rise to an offsetting externality when after graduation students do not return to their country of origin. In that case the host country benefits from education financed by the home country. Indeed, evidence cited by Ederveen and Thissen shows that student mobility to some extent is a precursor of labour migration. Offsetting externalities may give rise to vouchers that not fully cover the cost of education or to obligations to refund vouchers in case of migration, as mentioned by Gérard. Increasing private returns on higher education that motivate a shift in higher education funding from public to private sources (see Van der Ploeg and Veugelers) also diminish the policy externalities.

All in all, intricate interactions between mobility, competition and public expenditure in higher education complicate the assessment of subsidiarity (see Figure 1.1). Currently, student mobility is low. This low mobility may originate from limited transparency or various national institutions that limit competition and investment in higher education. In that sense, pri-

marily national initiatives to reduce these barriers may generate positive feedbacks, which increase economies of scale and externalities and thus ask for further EU involvement.

1.3.2 Innovation

Higher education and innovation are linked because graduates from higher education perform R&D and other innovative activities. Gérard (Chapter 6) analyses one of these links in the context of factors mobility. The EU is already active in attracting mobile researchers to conduct research in Europe. However, efforts to stimulate the development of poor regions through innovation may intensify policy competition by Member States in an indirect way, since it will increase regional demand for researchers. That may ask for a stronger EU involvement in promoting innovation in poor regions through regional development policy. Hence, in this case a motive for centralization follows from the complementarity between research policy and regional policy.

Falk et al. (Chapter 8) review the extent to which economies of scale or cross-border externalities may manifest themselves in a broad range of policy fields related to innovation and where heterogeneity of preferences is dominant. They provide a taxonomy of policy domains according to these two dimensions and compare the actual allocation of policy competences with the theoretically preferred allocation. Some cases are straightforward, for instance economies of scale clearly concern large-scale R&D projects such as Galileo. Here centralization is warranted according to the subsidiarity principle. Yet, that still doesn't necessarily imply EU coordination: CERN is a primary example of mutual cooperation in a large R&D project. Also SME innovation policies clearly relate to the national or regional level, which would restrict the role of the EU to supporting policy learning and safeguarding the Internal Market. In some instances, EU initiatives appear to fail a subsidiarity test. For instance, the establishment of a European Institute of Technology is controversial from a subsidiarity perspective.

Van der Horst et al. (Chapter 9) search for empirical evidence on economies of scale or cross-border externalities in R&D. For the EU Member States plus the US, Van der Horst et al. find a positive association between the size of the economy and the share of public R&D in government expenditure. This might be an indication for economies of scale in public funding of R&D. The authors find an analogous association between the size of the economy and public funding of private R&D. In addition, they interpret a negative association between public R&D expendi-

tures and foreign ownership of patents as an indication of spillovers of public R&D abroad. That may point at cross-border externalities, which underscore centralization of public R&D at the EU level.

In contrast to these motives for European coordination, Van der Horst et al. draw attention to heterogeneity. This would point at the Member States as the most appropriate level for R&D policy. Heterogeneity pertains to the variety of objectives of public R&D among Member States and to learning from diversity. By consequence, subsidiarity in R&D indeed has to trade off economies of scale and cross-border externalities against diversity among Member States. On one innovation policy field, the Community Patent, the authors clearly argue for centralization from the perspective of subsidiarity. The authors suspect that the difficulties in establishing a Community Patent are the result of protectionism by Member States.

In general, Falk et al. and Van der Horst et al. show that it is impossible to assess subsidiarity at the level of innovation policy as a whole. It is necessary to make a careful assessment for each specific policy domain separately. As is the case for many other policies, the devil is in the detail.

1.4 The Internal Market and agricultural policy

The contributions on Internal Market Policies concentrate on heavily regulated services such as network industries and banking (Chapter 10) and commercial services (Chapter 11). In addition, agriculture has been included under this heading, because it is linked to the Internal Market.

1.4.1 The Internal Market for services

Gual (Chapter 10) analyses the integration strategies in telecommunications, banking and electricity. In all these network sectors the appropriate level of regulation is a fundamental topic. The level of regulation and thus also integration should maintain a level playing field for all competitors and should also protect country-specific strategic interests to varying degrees. This could result in harmonization for some regulations and mutual recognition or host country rules in other domains. In banking, partial harmonization and mutual recognition dominates. In retail banking the use of host country rules could be improved to avoid protectionist devices. In telecommunications, Gual pleads for more use of the mutual recognition principle, which could trigger more competitive deregulation and the spread of best regulatory practices. In electricity, integration has been less

successful. Gual advises more harmonization or regulatory practices with some host country rules in very sensitive sectors. The main message is that there is no single path towards deregulation and integration for the various network industries, and that integration is no goal in itself.

Lejour (Chapter 11) analyses the Internal Market for commercial services. At present services markets are hardly integrated although there are no formal trade barriers. The main reason are differences in regulatory practices which hamper cross border trade and foreign direct investment in these sectors. The chapter concludes that further integration is possible but that national practices on regulating services have to be shifted to the EU level to some extent. This shift makes it possible to internalize the negative effects of own regulatory standards on foreign service providers. However the benefits are not equally distributed over the Member States and Member States have different preferences for regulating services. Over time, the benefits of further centralization could increase, among other reasons, due to the globalization trend, the shift towards a services economy, and the tendency to regulate less in Europe.

1.4.2 Agricultural policy

The common agricultural policy covers a large part of the EU budget. Grethe (Chapter 12) concludes that the market policies in agriculture should still be a part of the EU budget, because shifting these to a lower level of government would disturb the functioning of the Internal Market for agriculture. The other important budget items are direct payments and rural developments policies. The analysis suggests that there are no clear economies of scale or internalization of externalities if these activities are conducted at the EU level. Because these policies are to a large extent a transformation of past market and intervention policies, it is understandable that these policies were part of the EU budget, but economic reasoning suggests that it is sensible to shift these policies to the Member States in the future. Common pool problems for rural development policies and direct payments in particular are also a reason to concentrate spending at the Member State level. In particular for rural development policies Member States could learn from each other about which policies work and which do not. The advantage of regional and national policies is that regions and countries could experiment with these policies. Involvement of the EU could be useful to create platforms to exchange information, practices and results in these areas.

1.5 Taxation

Keen and De Mooij (Chapter 13) give an overview of the main arguments behind the criteria of functional subsidiarity in the field of taxation. The argument pointing at decentralization – heterogeneity of preferences – is clearly recognized. Indeed, the differences across countries in preferences for government expenditure⁷ lead naturally to differences in revenue needs and therefore to different choices in taxation. This link is further exploited by Pouget and Stéclebout-Orseau (Chapter 16) who look at the implications of tax competition in the presence of heterogeneous preferences for public goods.

On the pro-centralization arguments Keen and De Mooij review the presence of fiscal externalities and its possible forms as well as its likely welfare implications. The existence of scale economies, mainly recognized in the administration and compliance domains, is presented as playing a rather modest role, leaving the bulk of the justification of a possible need for coordination to the presence of externalities. Among the various forms of externalities the one arising from “base snatching” and the consequent tax competition leading to lower rates is seen as deserving particular attention in the context of capital income taxation, due to the high mobility of capital relative to labour. For this reason, the pros and cons of tax competition become a crucial element when discussing the merits of some form of centralization in capital taxation. Keen and De Mooij discuss some of the arguments in favour of tax competition, in particular due to its role as a disciplining device.

By confronting the lessons from the theoretical and empirical literature on fiscal federalism with the EU experience in the area of tax policy coordination, Keen and De Mooij give an appraisal of what they see as successes in the EU efforts to coordinate tax policy, namely in the area of the value added tax. However, they suggest that this may have come at the expense of sufficient effort to address the coordination of capital income taxation in earlier stages of the EU. As a lesson to future unions, Keen and De Mooij suggest that capital tax coordination is better dealt with in early stages when membership is more homogeneous and lobby interests are weaker.

The three chapters following Keen and De Mooij’s look into detail at corporate taxation, arguments in favour or against tax coordination and the specificities such coordination should take.

⁷ These differences in preferences for government expenditure items have been discussed for the fields of education and innovation in Chapters 5-9.

Cnossen's Chapter 14 goes the furthest in dealing with the specificities of corporate tax coordination. Though acknowledging the potential role of tax competition as a disciplining device, Cnossen does not view tax competition as wholly beneficial, in line with Keen and De Mooij, and argues for a gradual, bottom-up and partially reversible coordination over a top-down harmonization approach. He also stresses the importance of a broadly based approach encompassing the taxation of all forms of capital income rather than a narrow coordination of corporate profits. More precisely, Cnossen proposes an agenda for capital income taxation coordination in five sequential steps whose final completion would lead to a European capital income tax. However, he recognizes that this last final step is, in the present circumstances, unfeasible. His agenda's measures aim at mitigating the distorting effects on corporate financing and investment caused by the differential in corporate and personal income tax rates and at reducing incentives for transfer pricing manipulation and thin capitalization.

Van der Horst (Chapter 15) addresses specifically the externalities associated with the two main "parameters" of corporate taxation: tax rates and tax base. The economic effects and the distributional implications of tax reforms are then investigated by assessing the sign and size of spillovers associated with unilateral tax policy and by factoring in the scale economies for firms allowed by tax base consolidation using a general equilibrium model. These exercises lead to an assessment of the benefits/costs of tax rate harmonization and/or tax base consolidation. Van der Horst's simulation exercises point at limited gains from tax-base coordination. Simulations on the consolidation of the tax base via formula apportionment suggest very uneven economic effects both across and within countries with small overall gains leading to the suspicion that the details in the design of such consolidation may in the end determine whether such gains materialize. In a far-reaching scenario were tax rate harmonization adds to tax base consolidation an overall gain would occur accompanied by large variation across countries with small tax base countries losing. This result suggests that consolidation combined with tax-rate harmonization could pass the subsidiarity test if complemented with a proper redistribution scheme. Tax rate harmonization without tax base consolidation does not seem to be a useful strategy because simulations suggest that, starting from the present situation, further tax rate competition would hardly decrease rates, therefore casting doubts on a "race to the bottom".

Pouget and Stéclebout-Orseau (Chapter 16) devote their attention to the implications that corporate tax competition has for the composition of public spending. The authors question the standard argument that tax competition is harmful because it erodes tax revenues and therefore the govern-

ment's ability to produce the optimal level of public good. Instead, they turn to the more subtle concept of distortions in the composition of public expenditure. These distortions are caused by the existence of a second dimension of competition: the provision of a productivity-enhancing public good as a means to attract investment and consequently a broader tax base. Interpreting increased tax competition as the result of easier profit shifting, they find that tighter tax competition leads governments away from productivity-enhancing spending. Conversely, tax-rate coordination would not only lead most countries to increase their statutory corporate tax rates, but also foster a re-allocation of public expenditure in favour of productivity-enhancing spending. Although the welfare and policy implications of this corollary are not directly addressed in the chapter, a move away from expenditure in fields such as health and social transfers may have a negative impact on households. However, as the authors recognize, further investigation would be necessary to assess this intuition.

1.6 Regional and transport policy

Regional policy takes subsidiarity a step further than the levels of the Union and the Member States to issues concerning decentralization to the regional level. Transport policy has a regional dimension as well.

1.6.1 Regional policy

Begg (Chapter 17) discusses the rationale for an EU regional policy. Regional policy is the mainstay of cohesion policy, the aim of which is to improve the competitive position of regions. Although redistribution, in the sense of improving the current incomes of poorer citizens, is not the aim of cohesion policy, in practice the richer Member States transfer resources to the poorer ones in this way, a rather clumsy way to redistribute income, as Begg states. Cohesion policy is, along with the Common Agricultural Policy, the most important budget item of the EU. For some (poorer) Member States the payments can add up to a few percentage points of GDP each year. Structural Funds' spending is not limited to the poorer Member States, but also goes to poor regions in rich Member States. For the latter case Begg doubts the rationale for EU intervention for two reasons. First, richer countries have the funds to finance regional policy themselves. Second, assignment of regional policy at the Member State level may give a better match with regional preferences and there are lower transaction costs involved.

Begg argues that the case is different for Structural and Cohesion Fund payments to poorer Member States for at least three reasons. First of all, the poorer countries have fewer funds available. The transfer of resources has to be orchestrated by a higher level of government. Second, a higher level of government can more easily handle the competition between regions to improve competitiveness. Third, the higher government level can impose governance conditions such that support is used appropriately. This could also stimulate and help poorer Member States to develop their institutional capacity. Although cohesion policy is in principle temporary - it finishes when poorer countries catch up - Begg foresees a resilience of cohesion policy for constitutional and political economy reasons.

Overall Begg suggests that a nuanced approach is needed: there are sound arguments for either or both of the EU and Member State levels having a role. The balance of these arguments is also affected by the disputed effectiveness of cohesion policy, as the empirical evidence is mixed and inconclusive about the ability of regional policy to have an enduring effect on regional prosperity. However, most of these evaluation studies have their limitations as well.

Fenge and Meier (Chapter 18) add another argument to the rationale for an EU regional policy, which is not based on altruistic motives of the richer Member States but on their self interest. They argue that EU regional policy can be used as a means to prevent 'immigration into unemployment'. Transfers to poor EU countries that support infrastructure investment make staying in these countries more attractive and allow them to catch up faster. High wage countries are interested in spending money in this way to avoid immigration that raises unemployment of natives in an inflexible labour market. Concerning the structure of regional policy, donating countries prefer matching grants for investment in infrastructure to unconditional grants or wage subsidies. Investment subsidies lead to faster wage growth in the poor Member States of the EU, which reduces both migration flows and unemployment in the immigration countries. Bilateral agreements between high and low wage countries will not be efficient, because the high wage countries do not take the benefits of less immigration to other high wage countries into account. This externality has to be dealt with at the EU level. Fenge and Meier do not distinguish different regions in the low and high wage country. In their view regional policy does not aim at reducing disparities. The only reason to choose public investment is that this is more effective in their model than redistribution in the form of wage subsidies.

1.6.2 Transport policy

De Borger and Proost (Chapter 19) study the role of the EU in transport policy, in particular in providing transport infrastructure, and the interaction with instruments to price the use of the infrastructure. First, they conclude that the desirability of European funding for infrastructure projects crucially depends on the importance of cross-border transport. Subsidies are not needed from an efficiency viewpoint if there is no transit transport. Second, they show that countries will charge excessively high tolls and strongly under-invest in transport capacity, if they are allowed to determine tolls for the use of their infrastructure. This conclusion only holds if Trans European Networks are interpreted as serial transport corridors (which is often the case for railways and canals) and not as parallel corridors (often the case for roads). To avoid high tolls, insufficient investment and large welfare losses, it is better for the EU not to allow Member States to freely decide on tolls at all in the serial case. The third conclusion is that the EU should also intervene in providing infrastructure for serial transport corridors, because capacity is underprovided. De Borger and Proost suggest linking the provision of financial support to marginal social cost pricing by the Member States. According to their calculations subsidies should depend positively on the share of trans-border transit through the country and on the degree of scale economies in capacity provision, and negatively on the cost of public funds.

De Borger and Proost focus on serial corridors. Their conclusions suggest that the EU has a substantial role in developing infrastructure and the pricing of railways and canals. In the case of roads drivers have often more alternatives over parallel roads such that the external effects of Member States policies are much smaller.

1.7 Conclusion

Can the application of the subsidiarity principle be helpful for developing economic reform policies in line with the Lisbon agenda? There is no easy answer to this question. An overview of all contributions in this book yields a number of general conclusions for specific policy fields. The pros and cons of acting in common in Europe as well as a number of caveats are also suggested. In particular, the contributions in this book pinpoint the following difficulties:

1. In a number of cases political economy arguments add to the explanation of the current division of responsibilities between the Union and the Member States. For instance, *juste retour* arguments, lobbies, pol-

icy learning and path dependence to some extent affect agricultural and cohesion policy.

2. Often the devil is in the detail. The assessment of subsidiarity depends on specific characteristics of a policy area and on complex interactions between determinants of economies of scale or cross border externalities (see for instance Section 1.3). Hence, general statements about too much or too little Europe are hard to substantiate.
3. Subsidiarity does not always imply a clear-cut division of responsibilities. In several cases the EU and the Member States may act together. Policy learning through the open method of coordination is a straightforward example.
4. Subsidiarity is a dynamic process: change is driven by various trends. Diversity leading to more heterogeneity is one of these. Diversity relates to the increasing number of Member States and differences in their economic structures. That would require more decentralization to match local preferences. Moreover, the globalization trend could have substantial effects on economies of scale and externalities related to size.
5. Changing circumstances may require abandoning earlier policies for centralization. Yet, this may be difficult, because for some Member States more will be at stake than for others (see for instance Grethe, Chapter 12). That underscores the option value of waiting and the use of sunset clauses (Oosterwijk, Chapter 4).

In spite of these difficulties we can draw some conclusions from the application of the subsidiarity principle on education and innovation; the internal market and agricultural policy; corporate taxation; and regional and transport policy.

The quality of higher education and thus human capital has to be improved if the EU is to reach its ambitious Lisbon goals. Here is a possible role for the European Union. Increasing mobility of students could lead to more competition and possibly higher quality in education. Moreover, the European Union could act as catalyst for the Member States' reforms of the higher education sector. The analysis of R&D policies shows that there are clearly defined roles for the Member States and the EU. The EU has a role in funding public R&D and in subsidizing private R&D, because of the externalities involved and the potential benefits of economies of scale. Government support for R&D by small and medium size enterprises can be better conducted at the national or even regional level. These government layers have in general better information about local circumstances and there are no substantial cross-border externalities involved.

With respect to Internal Market Policies, the analyses suggest that the common market for heavily-regulated and commercial services could be improved, because of the external effects of national regulatory practices. Concerning the common agricultural policy, rural development policies and direct payments can be better carried out by national or regional government layers. Although the current divisions of tasks between the EU and the Member States can be understood from the past, EU involvement in rural development and income policies is overall inefficient and could lead to crowding out of EU budgets. EU involvement should be limited to market policies and agri-environmental policies that address cross-border externalities.

In earlier stages the EU has been successful in coordinating value added tax policy, but not in the coordination of capital income taxation. This book argues for further coordination of capital income taxation. Although a step by step approach seems to be advisable, the benefit of coordination probably only appears if tax rates and the tax bases for capital income are coordinated. However, tax coordination does not curtail policy competition. Member States are still able to compete with productivity-enhancing public spending such as infrastructure, to attract economic activity.

The EU has also a clear role in regional policy, as long it is directed to regions in poorer Member States. These states often lack the financial and institutional capacity to develop the regional economy and the EU can handle competition between regions. It could also be in the self interest of richer Member States to stimulate the economy in poorer ones in order to avoid some undesirable consequences of massive migration. For the stimulus of poor economic regions in richer Member States, these Member States themselves could take the lead. The book also clarifies the role of the EU with respect to transport policy, in particular on Trans European Networks. For railways and canals, the so called serial transport corridors, the EU should take the lead in order to generate sufficient capacity and to avoid excess pricing. For road infrastructure this is different. Because of the many alternative parallel roads the Member States should take the lead.

Besides these conclusions, the contributions in this book have indicated at least two main directions for further research: empirics and political economy. Indeed empirically, much is still unknown about the optimal level of decision making in the EU. Often assessments of subsidiarity present a range of theoretical arguments related to the functional subsidiarity test. Yet, determining the position on the trade-off between decentralization and centralization and deriving policy options ultimately is an empirical question. Adding political economy arguments to the trade-off further complicates the assessment. Some authors (for instance, Oosterwijk, Chapter 4;

Gual, Chapter 10; Lejour, Chapter 11; Grethe, Chapter 12; Begg, Chapter 17; Fenge-Meier, Chapter 18) explicitly analyse political economy considerations from a practical or theoretical perspective. Generally, empirical analyses of these motives are way out of sight. Possibly case studies of actual decision making in EU councils and committees may be an interesting first step to follow-up in this direction.

All in all, the contributions in this book show that subsidiarity is an intricate and challenging topic, both for economic analysts and for policy makers. The economists can provide policy makers with a range of arguments to support their judgments on issues of subsidiarity. However, they cannot and probably will never be able to provide detailed recipes on how to allocate responsibilities between the EU and the Member States. That is all for the best, since in a democracy subsidiarity will ultimately be a political decision, yet economic analysis may contribute to it being as informed as possible.

References

- Alesina A, Angeloni I, Schuknecht L (2001) What does the European Union do? NBER Working Paper 8647, Cambridge, MA
- CPB/SCP (2003) Social Europe. In: European Outlook 1, The Hague
- De Mooij R, Tang P (2003) Four futures of Europe, CPB, The Hague
- European Commission (2005) Working together for growth and jobs A new start for the Lisbon Strategy, Communication to the spring European Council, COM (2005) 24, Brussels
- Gelauff G, Lejour A (2006) Five Lisbon highlights: The economic impact of reaching these targets. CPB Document 104, The Hague also published as The new Lisbon Strategy: An estimation of the economic impact of reaching five Lisbon Targets, Industrial Policy and Economic Reforms Papers, no 1. Enterprise and Industry Directorate-General European Commission, Brussels