Introduction

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This book takes the approach of considering the root causes of environmental degradation as government failure and market failure. Government failure may be defined as government intervention that creates perverse incentives that result in environmental damage. The failure of the market to protect the environment results from a deficiency of the price mechanism such that it does not fully reflect the value of environmental assets. In a market economy, most goods are allocated by the price mechanism. The price we pay for goods and services reflects our willingness to pay for, or the value we place on, them. However, the shared nature of many environmental assets, such as the atmosphere, means they are not owned and so do not have a price; when goods are free they tend to be overused and undersupplied.

The book is divided into five parts to reflect the role of budgetary policy in correcting government failure and market failure. Part I focuses on the correction of government failure by way of removing environmentally damaging subsidies. Parts II and III examine the potential for correcting market failure by way of appropriate pricing of the environment. Following the polluter pays principle, Part II examines the prospects for altering existing taxes and charges or introducing new ones in order to change the incentives faced by individuals so that they pursue the environmentally preferred course of action. Part III examines the other side of the coin, that is to say, compensating those who provide environmental benefits using subsidies. Part IV examines the environmental and budgetary implications of European Union financial transfers by taking a case study of the agricultural sector. Finally, Part V includes two chapters which address a less-frequently researched area of green budget reform, that is, the case of public purchasing and administration.

It is often quite difficult to define a subsidy, let alone identify whether it is an environmentally perverse one. This thesis guides the first chapter in Part I by Jan Pieters (Dutch Ministry for the Environment) and Helen Mountford (OECD). They explore these definitional problems and endeavour to assess the impact of a subsidy on the environment. They argue that, without knowledge of the relevant alternative, a judgement is hardly possible. André de Moor

(RIVM, the Netherlands) and Cees van Beers (Delft Technical University, the Netherlands) examine the extent of ‘perverse’ subsidies in relation to both energy and water. Part I concludes with two country case studies. The first, by Gawain Kripke (Friends of the Earth, USA), presents the experience of Friends of the Earth in campaigning for the removal of environmentally damaging subsidies in the USA. Amongst other things, his chapter suggests that unusual alliances with conservative taxpayers can be an important factor in a successful campaign. By taking a case study of Slovenia, Kai Schlegelmilch (Wuppertal Institute) and Tanja Markovič-Hribernik (University of Maribor, Slovenia) present a comprehensive overview of how the revenue and expenditure side of the budget as well as several fiscal provisions are likely to affect the environment in a Central and Eastern European country. They argue that, now that the infrastructure in these countries is renewed to a large extent anyway, the incentives of the budget should be set appropriately to spur societal and technical innovations towards sustainability and least-cost solutions and not to repeat mistakes of Western countries by continuing subsidies for unsustainable production and consumption patterns.

Part II examines the revenue side of the budget to discover the scope for greening taxes and charges. The first chapter, by Stefan Speck (Regional Environmental Centre, Hungary) and Paul Ekins (Keele University, United Kingdom), examines recent experiences with regard to the implementation and environmental impacts of ecotaxes. In their chapter they conclude that an in-built evaluation mechanism should be included when such taxes are introduced. Several country-related studies follow. Ursula Triebswetter (IfO Institute, Munich) examines environmentally counterproductive tax concessions in Germany. She identifies the mineral oil tax as a major part of such concessions. Bettina Meyer’s (Ministry for the Environment, Nature and Forestry, Germany) chapter examines this tax in further detail. Whereas many environmental taxes are related to energy consumption, the use of a property tax as a means to allocate land amongst various uses is considered less often. However, Kilian Bizer’s (University of Cologne, Germany) paper examines the potential for such a tax and discusses the likely environmental impacts. He also addresses possible synergies with other fiscal objectives such as greater fiscal independence of communities – a special feature of Germany’s federalism. Part II concludes with a short chapter by Luciano Messori (Eco&Eco, Italy) describing the planned Italian system of quantity-related waste charges.

In Part III subsidies for environmental purposes are examined in a variety of theoretical and empirical chapters. Eirik Romstad’s (Agricultural University of Norway) theoretical chapter compares the provision of public goods via subsidies with a financing mechanism through performance payments and draws the conclusion that the latter method leads to more efficient allocations. Johan Albrecht (University of Ghent, Belgium) examines the potential for environ-

mental consumer subsidies to reduce CO₂ emissions and illustrates his work with the examples of energy-efficient cars and other consumer products. His example of standards in US car manufacturing lends support to the economist's contention that regulations, by contrast with market-based instruments, do not encourage ongoing improvements once the standard has been attained. Conventional cost-benefit analyses do not usually consider transfer payments explicitly. However, a positive benefit-cost ratio does not, in itself, provide a rationale for subvention of the project in question. Part III concludes with a chapter by Peter Clinch (University College Dublin, Ireland) which examines the assessment of the appropriate subsidy to large-scale environmental projects. By taking a case study of EU subsidies to forestry in Ireland, he presents the rationale for subvention and demonstrates the difficulties in assessing the appropriate subsidy in a second-best world.

Part IV sheds light on European financial transfers from an environmental and budgetary perspective. The three chapters focus on the agricultural sector. Dominic Hogg (ECOTEC, UK) analyses the required environment for the application of economic instruments in the agricultural sector. Given its importance in the EU budget, this could contribute to some substantial changes in policy and environmental impacts. Frank Convery, John Fry, Siobhán O'Shea, Anne Pender (University College Dublin) and Alan Matthews (Trinity College, Dublin) examine EU agri-environmental policy. By focusing on *Agenda 2000*, they provide suggestions as to how environmental considerations can be integrated into European agricultural policy. The final, but strongly related chapter, in Part IV is by Sue Scott (Economic and Social Research Institute, Ireland). By taking a case study of Ireland, she examines the distributional pattern of direct payments to farm households. While these appear to have assisted low-income farm households, there is considerable potential for improvement. Scott also shows that such transfers appear to trigger undesired negative environmental effects.

Finally, in Part V, attention is focused on public purchasing and public administration. Arndt Mielisch and Christoph Erdmenger (International Council for Local Environmental Initiatives (ICLEI), Germany) demonstrate the potential for green procurement at the municipal level and introduce ICLEI's municipal green procurement network as a policy instrument for more sustainable products and services. Katrin Ostertag and Carsten Dreher (Fraunhofer Institute for Systems and Innovation Research, Germany) discuss issues linked to the practical implementation of cooperative procurement (which is a variation of public procurement) and its effectiveness as a policy instrument in the context of innovation theory. An example in the market of energy-efficient products is illustrated.