

# Preface

This book originates in the Dutch policy discussion in the beginning of the 1990s on the employment effects of environmental taxes. It was argued at that time that environmental tax reform, which substitutes pollution taxes for taxes on labor income, could serve two objectives, namely first a cleaner environment and second less labor-market distortions due to high taxes on labor income. In the Dutch policy discussion, environmental tax reform was generally viewed as a so-called double-edged sword. In the international literature, the idea that an environmental tax reform could kill two birds with one stone has become known under a different name, namely the double-dividend hypothesis. The research contained in this book throws cold water on the idea that environmental taxes are a cure for unemployment. By using simple analytical models and drawing on optimal tax theory, it points out that it is not evident at all that an environmental tax reform will raise employment by reducing tax distortions. The world is thus more complicated than the initial intuition about shifting the tax burden from labor to pollution would suggest.

Most of this research was carried out at the Research Centre for Economic Policy (OCFEB) at the Erasmus University Rotterdam. OCFEB aims to bridge the gap between academic research and the concerns of policymakers by pursuing policy-relevant research. The insights from this study have had a large impact on the discussion on environmental tax reform in the Netherlands. To illustrate, whereas at the beginning of the 1990s, the common wisdom was that an environmental tax reform could be an important instrument for raising employment, the last commission on green taxation in the Netherlands stated that environmental tax reform should be targeted primarily at reaping the first dividend, i.e. a cleaner environment; the second dividend does not appear to exist.

At the same time, the research contained in this book has made its mark also in the international academic literature. Earlier versions of some of the chapters in the book have been published in major journals such as the *American Economic Review*, the *European Journal of Political Economy*, the *Journal of Public Economics* and *International Tax and Public Finance*. This book reports on some of the most important and active research areas in environmental economics and public economics in the last decade. By studying environmental policy in the presence of non-environmental tax instruments, this research has revealed that environmental policy can interact importantly with these taxes. It has resulted in a careful rethinking of design of environmental policy in a world with pre-existing distortions. More generally, it has given a new impetus to the investigation of how economic policy interacts with pre-existing distortions in the economy. Thus, this book is an excellent example of what OCFEB stands for: the pursuit of high quality research that is relevant for actual policymaking.

After surveying the literature, the book provides a rigorous analysis of a benchmark model. This model shows how environmental levies may exacerbate labor-market distortions due to a distortionary tax on labor income. The basic framework of the benchmark model is subsequently enriched to deal with various extensions: the capital market and international capital mobility, international trade, distributional considerations, imperfect labor markets and involuntary unemployment, feedbacks of environmental quality on the economy, and endogenous growth. By taking the same benchmark model as a starting point, the separate effects of the various extensions become clear. The book illustrates the great force of small analytical models to uncover the main transmission channels of environmental taxation. All chapters (except chapter 9) also contain numerical simulations to explore the magnitude of the effects.

Many countries are currently considering and implementing environmental tax reforms. The failure of the double-dividend hypothesis as documented in this book does not imply that these countries are misguided. Whereas the second dividend may be doubted, the first dividend (i.e. a cleaner environment) remains a powerful reason for the introduction of pollution taxes. Indeed, the main lesson of this study is that the desirability of pollution taxes depends on the environmental benefits, i.e. the degree to which it serves the first dividend. It

therefore points to the importance of documenting the environmental benefits.  
The double dividend is dead. Long live environmental taxation!

Lans Bovenberg