Dedication

Dedicated to my parents for putting their faith in me
Preface

Delivering a doctoral dissertation or thesis effectively means proving that you are able to do research independently. While I indeed carried out most of the research myself, spent many evenings alone in the attic drafting the included papers and am, of course, fully to blame for any incorrectness, I could not have completed this work without the help of many, many others. Therefore, I would like to express my thanks here to all persons and organisations that contributed to this thesis.

First of all I would like to thank Alfred Wagendonk for luring me back to the *Vrije Universiteit Amsterdam* and Henk Scholten for enthusiastically stimulating me to do this research and providing the freedom to let me find my own niche in it. I am, furthermore, indebted to my other supervisor, Piet Rietveld, who patiently initiated me in the world of econometrics and scientific writing.

This thesis is a compilation of the spatial analyses I performed in various studies related to physical planning that were commissioned and supported by many different organisations and research programs. For their initial support I want to thank the former *Rijksplanologische dienst*, now *Ruimtelijk Planbureau*, soon to become *Planbureau voor de leefomgeving*. I regret not being able to show Jan Groen the final result of the work he initiated. I thoroughly enjoyed the cooperation with the part of the RIVM that became *Milieu- en Natuurplanbureau* and soon will also be *Planbureau voor de leefomgeving*. Especially the support of Judith Borsboom-van Beurden and Arno Bouwman was essential in doing the land-use simulations presented in the last chapters. The cooperation with their former colleagues Marianne Kuijpers-Linde and Willem Loonen was equally pleasant and I am very excited that we now start the new Geodan Next adventure together.
Furthermore, I would like to thank the Netherlands Ministry of Housing, Spatial Planning and the Environment (VROM) and H&S consultants for their kind cooperation in the research on rural vitality. For the work related to water management I am grateful for the opportunities provided by the former Rijksinstituut voor Integraal Zoetwaterbeheer en Afvalwaterbehandeling, the German Federal Ministry of Education and Research (BMBF) and the Technische Universität Berlin. The ‘Environment, Surroundings and Nature’ (GAMON) programme of the Netherlands Organisation for Scientific Research (NWO) funded the work related to the valuation and preservation of open space in the Netherlands. The substantial support from the Dutch National research programme ‘Climate changes Spatial Planning’ provided the opportunity for the further development and application of the land-use modelling framework and the dissemination of the subsequent results.

Almost all of this thesis’ chapters are, or soon will be, published as journal or book contributions. As such they have gone through lengthy review procedures and I am thankful to the many anonymous reviewers whose comments greatly helped to enhance the scientific value of the original papers. The first steps towards a coherent thesis were made during a three-month stay late 2005 at the SIGTE-group of the Universitat de Girona in Catalonia. My family and I enjoyed this break very much; moltes gràcies per l’ hospitalitat! The constructive comments on the initial version of this manuscript provided by the members of the thesis committee (Adri van den Brink, Helen Couclelis, John Stillwell, Peter Nijkamp and Tom Veldkamp) furthermore helped to improve its quality. Additional thanks go to John for making the joint editing of the ‘Modelling land-use change’ book such an instructive and rewarding experience. I am also grateful to Eva Jane Stam and Patricia Ellman for their linguistic help with several chapters.

Many of the studies included in this thesis were carried out in close cooperation with colleagues of different research groups in the Netherlands and abroad. I would like to acknowledge the following persons in particular for their much-appreciated contributions to the included analyses: Evelien van Rij, Fernando Bação, Hanneke van der Klis, Jan Ritsema van Eck, Jeroen Aerts, Maarten Hilferink, Maria Teresa Borzachiello, Noor van der Hoeven, Richard Kaufholz, Rosan van Wilgenburg, Terry van Dijk and Tom Kuhlman. Jasper Dekkers deserves special thanks for the fact that he endured cooperation in four chapters of this thesis. In addition, I also want to express thanks to the many colleagues of the SPINlab and the department of Spatial Economics of the Vrije Universiteit Amsterdam for providing the pleasant working environment and distractions that were essential for carrying on with this research in the past seven years. And Eduardo, I hope to keep seeing you around!
As usual the last acknowledgements are reserved for the ones that will always come first. Paloma, Wilco and Robin I am very grateful for all the moral support you provided while I worked on this thesis, and I am extremely happy that we can now celebrate its finalisation together.

Eric Koomen
Amsterdam, March 2008