Preface and acknowledgements

This book is concerned with how current decisions about consumption and saving have an impact upon future well-being, and in particular how current measurable indicators can shed light upon the prospects for future well-being. It is concerned, in short, with the concept and measurement of sustainable development. This task is beset by conceptual and empirical challenges. Yet at the heart of this book lies a very practical concern – if sustainability is to mean anything at all it needs to be measurable. We feel a sense of urgency in this task. Because current systems of economic indicators do not clearly signal whether an economy is on a sustainable path, policy errors based on these indicators will continue to be made and perpetuated. Moreover, these errors have a long reach, since they affect not only current well-being but also the well-being of those living in the future. Our book builds upon a body of knowledge linking growth theory, asset accounting and indicators of sustainable development. Moreover, what we are particularly interested in is the empirical application of this accumulated knowledge.

We last approached the question of measuring sustainable development in Atkinson et al. (1997). With our co-authors in that volume we examined a broad array of proposals for the measurement of well-being and sustainability. The rationale for that approach was that a meaningful picture of whether countries are developing sustainably requires a judicious mix of indicators. Our aim in this current volume is more focused on the *economics* of sustainability and the role that saving in particular plays in determining whether economies are sustainable. There has been solid progress on this topic in the nearly 10 years since Atkinson et al. (1997), progress which merits a fresh look at the economic approach to measuring sustainable development.

This is a project that we began in the early 1990s with David Pearce. Sadly, David passed away suddenly in September 2005. Much has been and will be written elsewhere about David's immense contribution to the development of environmental economics as an academic discipline and a basis for policy. We heartily endorse all of these tributes. David was also famous for the generosity and encouragement that he showed to his many students and colleagues over the years, and we were certainly

beneficiaries. We would like to add our own words of gratitude for David's major contribution to the work that is contained in this volume. David was struck by how the handful of green national accounting studies that had begun to emerge in the late 1980s presented both a novel and ambiguous picture of development prospects. The picture was novel because new and exciting data were being presented about economic progress in the presence of resource depletion and environmental degradation. The ambiguity stemmed from the fact that these 'green GDP' estimates (as they became known) did not in practice provide a clear signal about whether development was sustainable or not. David's contribution, published originally in Pearce and Atkinson (1993), was a key insight: focus instead on net saving, the amount of saving over and above the value of *total* asset consumption. If the adjusted net saving rate was negative, it was argued, then this provides an indication that a country is eroding the capital on which its development depends. Much of the data used to add empirical substance to these claims was of a provenance that – at least from today's vantage point – could best be viewed as illustrative. Nor was the theory behind this claim fleshed out in anything more than a rudimentary way, although a handful of notable earlier contributions had certainly pointed in this practical direction. Yet, in setting out his intuitions, David put down an important marker for future work: improve the numbers, tidy up the theoretical details, and an insightful and practical indicator would result. While this original intuition proved correct, the literature of the last 10 years or so shows that 'filling in the details' has been a protracted process. We hope that ours is a useful contribution to this work in progress. We also hope very much that David would have approved of the extensions and refinements of his vision that we set out in this book.

We would like to thank the following people for valuable insights and inputs, particularly in chapters 4, 6, 7 and 9: Susana Ferreira, Giovanni Ruta, Liaila Tajibaeva, Walter Nalvarte and Katharine Bolt. We would also thank our many colleagues, including John Dixon, John Hartwick, John Proops and Jeffrey Vincent, who have been important sources of advice and support as we carried out this work.

KH

GA