Preface

This book grew out of some preparatory texts written for participants of various courses on "Index Theory and Price Statistics" organized by the TES Institute (Training of European Statisticians) of Eurostat (the Statistical Office of the European Union). Courses of this kind were designed for the staff of National Statistical Institutes (NSIs) as well as Research Institutes, Central Banks and Ministries of a great number of countries (in one case also Non-European Mediterranean countries). They took place in Düsseldorf and Luxembourg (both repeatedly) as well as in Brussels and Ljubljana. Later, after the liquidation of TES there were similar courses for Balkan NSIs in Skopje and Belgrade. My part as course leader was primarily Index Theory, and in the last courses I also took over the price statistics part, initially as a rule presented by representatives of the German NSI and Eurostat.

The book evidently owes a lot to the many TES-co-trainers from official statistics and also to quite a few participants. For the sake of brevity I have to refrain from naming them here.

So this book has the same genesis as my book "Chain Indices, A Study in Index Theory" published in 2001 in a publication series of the German Federal Statistical Office. It is, however, more of a text book while the chain index book should be seen rather as a pamphlet against chain indices. In a sense chapter 7 of the present book summarizes a good deal of my criticism of chain indices in the aforesaid book, which unfortunately has not yet found much (benevolent) attention. Given that Alfred Marshall's (1842 – 1924) pleading in favour of chain indices remained more or less unheard for about a hundred years until it became all the rage thanks to the SNA 1993, I am pretty sure that it is most unlikely that I will outlive the chain index era. Yet I still hope for the best that my work was not in vain.

This should not be misunderstood. Chaining or not, the present book is first and foremost simply a "normal" textbook, dealing for the most part with non-controversial issues. It is doing so, however, with the intention of giving a comprehensible and comprehensive introduction for users of statistics.

Parts of the book have also been subject of lectures for graduate students at the University of Essen. So I had some feedback not only from the practice of official statistics but also from students. Some of them later became assistants of mine and cooperated with me in order to take their doctor's degree. They made very useful contributions to this book. In this context I would like to mention Dr. Andreas Kladroba, Michael Westermann, Jens Mehrhoff and my present assistants Janina Küter and Claus Christian Breuer. The latter is on the right track to become an expert in the economic theory of index numbers (section 2.4 of the present book), but he also left a mark in other parts of the book and he was a great help for me in some work of applied price statistics as for example an expertise for the German Constitutional Court. Janina Küter also went through the whole text of the book and contributed in particular to topics of official price statistics. She was particularly helpful in that she mildly (and politely) insisted on me not to content with an incomplete collection of downloads we had offered for quite a while in the Internet, but to finish up with a fine-looking book after all. So I only recently filled the gaps (especially sections 2.1, 4.2 and 4.3) and once more checked everything in order to prepare it for a proper publication.

In this final phase in which there was more time consuming work left to be done than expected (and in which Janina Küter's talent in organizing a working party was again indispensable) I was lucky to have met two students who both made most valuable

contributions and proved really a blessing. Jinny Meyer has done a very good (and laborious) job in the final editing and formatting of the whole text on the computer. She also paid attention to the contents and language and she worked out the references. Matthew Harrison – the only native speaker – checked the language, not only with language proficiency but also with thoroughness and good understanding of what the text is about. I am fully aware of the fact that his work is essential for a hopefully good acceptance of the book. So I do feel much gratitude.

I am also grateful to the publisher, in particular Dr. Ühlein from the Peter Lang book publisher who demonstrated much patience and forbearance with the author as well as competence in producing nice books.

Finally I would like to mention my wife, Dr. Yanqian von der Lippe – Fan, to whom the book is dedicated (which is only a modest way to express my gratitude and affection). She not only directly but also indirectly supported me in the time consuming creation of this book. A brief remark on what is meant by "indirectly" might be appropriate. Conditions to accomplish the arduous task of unfolding some mathematical proofs in full length had been particularly favourable for me in China - and they were indeed nowhere better than there - , far away from my everyday life in Essen. The deplorable fact that I am still so lazy and perhaps not gifted enough to learn the terribly difficult mother tongue of my wife (shame on me!) entailed it that there were evenings in which I had plenty of time to think over difficult things. So quite a few parts of the book have been written in Shanghai, while the rest of the family was sitting in another room, talking in Chinese. This applies for example to section 8.4, where I worked out in detail the derivation of the EKS parities from minimizing a distance. I could not find the proof in any other textbook. There are some other intricate parts of the book likewise "born" in Shanghai, but the vast majority of the book is a much easier reading, which is fully compatible with every day life and does not require sitting alone in a room in a remote country.

So I hope that the reader will find the book altogether useful and suitable as an introduction into a perhaps unexpectedly interesting part of statistics.

Essen April 2007   Peter von der Lippe