Preface to the Second Edition

This second edition sees the light three years after the first one: too short a time to feel seriously concerned to redesign the entire book, but sufficient to be challenged by the prospect of sharpening our investigation on the working of econometric dynamic models and to be inclined to change the title of the new edition by dropping the "Topics in" of the former edition.

After considerable soul searching we agreed to include several results related to topics already covered, as well as additional sections devoted to new and sophisticated techniques, which hinge mostly on the latest research work on linear matrix polynomials by the second author. This explains the growth of chapter one and the deeper insight into representation theorems in the last chapter of the book.

The rôle of the second chapter is that of providing a bridge between the mathematical techniques in the backstage and the econometric profiles in the forefront of dynamic modelling. For this purpose, we decided to add a new section where the reader can find the stochastic rationale of vector autoregressive specifications in econometrics.

The third (and last) chapter improves on that of the first edition by reaping the fruits of the thorough analytic equipment previously drawn up. As a result, the reappraisal of the representation theorem for second-order integrated processes sheds full light on the cointegration structure of the VAR model solution. Finally, a unified representation theorem of new conception is established: it provides a general frame of analysis for VAR models in the presence of unit roots and duly shapes the contours of the integration-cointegration features of the engendered processes, with first and second-order processes arising as special cases.

Milan, November 2008 Mario Faliva and Maria Grazia Zoia

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