

Preface

The study of networks and their applications has had a long tradition in engineering, operations research/management science, and in computer science. More recently, the fields of finance and economics have come to be rich and fascinating sources of network-based problems and applications. Interest from such disciplines has been supported, in part, by the greater availability of powerful network-based methodologies and tools that allow for enhanced modeling as well as computation of their solutions.

The role of networks in finance and economics has gained new prominence for a variety of reasons, including: the emergence of network industries from transportation and logistics to telecommunications; the recognition of the interdependence among many network systems, such as telecommunications with finance and telecommunications with transportation in the form of electronic commerce; new relationships between economic decision-makers in terms of cooperation and competition which are yielding new supply chains as well as financial networks; the realization of the importance of networks and the pricing of their usage, and interest surrounding networks and their evolution over space and time.

The growing attention to financial and economic networks is happening at a time when few volumes exist on such a topic. This book seeks to remedy this situation and brings together leading edge researchers. The idea for this book originated at the Eighth International Conference for Computational Economics (Computing in Economics and Finance) held in Aix-en-Provence, France, June 27-29, 2002. The editor of this volume organized two sessions on Network Economics for that venue and several of the papers presented there (but now in refereed and revised format) appear here as chapters.

This book is organized into two parts, with the first focusing on financial networks and the second on economic networks. The book contains a variety of innovations in terms of theory and applications. It should be a valuable resource to researchers and students, as well as to practitioners and to those who would like to know more about financial and economic networks.

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The editor is indebted to the referees of the papers submitted for consideration as chapters in this volume for their hard work, timeliness, and diligence, without which this volume would not have been possible. As a token of appreciation and acknowledgments, the referees and their affiliations are listed below. The editor is also grateful to the authors of the contributions to this volume, which vividly demonstrate both the breadth and the depth of research on financial and economic network topics. The contributors, their affiliations, and addresses are given below.

Referees

Martin Arlitt, Hewlett-Packard Laboratories, Palo Alto, California

Ben Branch, Department of Finance and Operations Management, Isenberg School of Management, University of Massachusetts, Amherst, Massachusetts

Jose Cruz, Department of Finance and Operations Management, Isenberg School of Management, University of Massachusetts, Amherst, Massachusetts

June Dong, Department of Management and Marketing, School of Business, State University of New York at Oswego, Oswego, New York

Emmanuel Fragniere, School of Management, The University of Bath, Bath, United Kingdom

Richard B. Freeman, National Bureau of Economic Research, Cambridge, Massachusetts

Ladimer S. Nagurney, Department of Electrical and Computer Engineering, University of Hartford, West Hartford, Connecticut

Padma Ramanujam, i2 Technologies, Inc., Dallas, Texas

Mauricio G. C. Resende, Algorithms and Optimization Research Department, AT&T Labs Research, Shannon Laboratory, Florham Park, New Jersey

Andrzej Ruszczynski, Department of Management Science, Rutgers University, New Brunswick, New Jersey

Leigh Tesfatsion, Department of Economics, Iowa State University, Ames, Iowa

W. David Walls, Department of Economics, University of Calgary, Calgary, Alberta, Canada

Bill Yurcik, National Center for Supercomputer Applications (NCSA), University of Illinois at Urbana-Champaign, Illinois

Ding Zhang, Department of Management and Marketing, School of Business, State University of New York at Oswego, Oswego, New York