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OPTIMIZATION OF REGIONAL INDUSTRIAL STRUCTURES AND APPLICATIONS

Yaoguo Dang · Sifeng Liu · Yuhong Wang

CRC Press
Taylor & Francis Group
AN AUERBACH BOOK

Optimization of Regional Industrial Structures and Applications

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CRC Press
Taylor & Francis Group
Boca Raton London New York

CRC Press is an imprint of the
Taylor & Francis Group, an **informa** business
AN AUERBACH BOOK

Auerbach Publications
Taylor & Francis Group
6000 Broken Sound Parkway NW, Suite 300
Boca Raton, FL 33487-2742

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Auerbach Publications is an imprint of Taylor & Francis Group, an Informa business

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Printed in the United States of America on acid-free paper
10 9 8 7 6 5 4 3 2 1

International Standard Book Number: 978-1-4200-8747-5 (Hardback)

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Library of Congress Cataloging-in-Publication Data

Dang, Yaoguo.
Optimization of regional industrial structures and applications / Yaoguo Dang, Sifeng Liu, and Yuhong Wang.
p. cm. -- (Systems evaluation, prediction, and decision-making series)
Includes bibliographical references and index.
ISBN 978-1-4200-8747-5 (alk. paper)
1. Industrial organization (Economic theory) 2. Economic development. 3. Industrialization 4. Industrial organization--China--Case studies. 5. Economic development--China--Case studies. 6. Industrialization--China--Case studies. I. Liu, Sifeng. II. Wang, Yuhong, 1978- III. Title.

HD2326.D36 2010
338.60951--dc22 2010025851

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Preface

Industrial structure optimization is a process of coordinating the development of different industries and meeting the increasing demand of the society by better combining and allocating resources. The practice of economic development and industrial transfer has proved that continuously promoting and rationalizing industrial structure has two advantages: accelerating the speed of economic development and realizing more economic benefits.

This book is based on several scientific research projects on optimizing and upgrading industrial structure and many case studies. Briefly speaking, it is the result of the authors' long efforts in the field of industrial structure optimization and its applications. The book contains two parts divided into 12 chapters. The first part (Chapters 1 through 8) is a brief theoretical introduction of regional industrial structure optimization, including the production and development of industrial structure theory, evolution laws of industrial structure, rationalization and upgrading of industrial structure, main factors of industrial structure upgrading, input–output analysis of industrial structure, regional industrial structure and selection of regional leading industries, and the mathematical model of regional industrial structure. The second part (Chapters 9 through 12) includes four case studies. They are approaches and measures of China's industrial structure upgrading during the "11th five-year plan"; the key points, ideas,

measures of Jiangsu Province's industrial structural adjustment; main paths and strategies of Jiangsu Province's industrial structural adjustment; and a study on optimization and an upgrading of the industrial structure in M City, respectively.

This book mainly applies grey systems theory to analyze problems on the basis of traditional methods of industrial structure optimization, which combines a new subject—grey systems theory and the theory of industrial structure optimization. We also bring out several models of grey regional industrial structure, including grey correlation priority analysis, an industrial structure order degree measurement model, a regional leading industries grey assessment model and turnpike model—an industrial structure adjustment model. These models not only develop application fields of grey systems theory, but also enrich the theories of industrial structure optimization.

Readers are welcome to point out and correct any errors and omissions in this book.

Yaoguo Dang

Acknowledgments

The relevant researches done in the book were supported by the National Natural Science Foundation of China (No. 90924022 and No. 70901041), the Key Project of Philosophic and Social Sciences of China (No. 08AJY024), the Key Project of the Soft Science Foundation of China (2008GXS5D115), the Foundation for Doctoral Programs (200802870020), the Foundation for Humanities and Social Sciences of the Chinese National Ministry of Education (No. 08JA630039), the Key Project of the Soft Science Foundation of Jiangsu Province (No. BR2008081), and the Foundation for Humanities and Social Sciences of Jiangsu Province (No. 07EYA017). The authors would like to acknowledge the partial support of the Science Foundation for the Excellent and Creative Group in Science and Technology of Nanjing University of Aeronautics and Astronautics and Jiangsu Province (No. Y0553-091). The authors appreciate and thank Professor Yi Lin for his help and Sheng Zhu, Yanyu Wang, Rui Ji, Wenting Wang, and Yu Chen for their assistance.

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