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沈坤荣 等著

# 新增长理论与 中国经济增长

南京大学出版社



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## 总 序

蒋树声

高等教育发展的核心是学术和人才。2000多年前的儒家典籍《大学》，就倡言“大学之道，在明明德，在亲民，在止于至善”。其中就蕴涵着昌明学术、探求真知之意。不过，在相当长的一段历史时期中，无论是我国两汉时期的太学，还是两宋以后逐渐昌盛的书院，无论是古希腊雅典城邦的哲学学园，还是中世纪欧洲次第建立的大学，类似的学术研究，都主要集中在经国治邦的政治理念与修身养性的道德哲学领域，而且以整理、阐发经典为主。19世纪初诞生的以柏林大学为代表的德国大学模式，由于更加重视科学研究，主张教学与研究相结合、相统一，由于将自然科学的研究引入高等教育的殿堂，因而使得大学的理念为之一变，高等学校的形态与功能也发生了深刻的变化。时至今日，高等学校，尤其是研究性大学，已经成为我们这个时代理论创新、知识创新和技术创新的重要基地，科学研究已经成为现代大学的一个重要职能。当然大学

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“学术研究”的内涵，也因时而进，不断丰富、充实，由只注重哲学、人文、社会科学的研究，发展到注重自然科学与工程技术、管理科学的探索，进而追求科学与人文的整合；由只注重基础研究，发展到兼顾理论、知识的应用与技术的开发、推广。正是在这样一个时代背景下，江泽民主席在庆祝北京大学建校 100 周年大会上的讲话中，专门论述了建设“若干所具有世界先进水平的一流大学”的重要性，指出这样的大学，“应该是培养和造就高素质的创造性人才的摇篮，应该是认识未知世界、探求客观真理、为人类解决面临的重大课题提供科学依据的前沿，应该是知识创新、推动科学技术成果向现实生产力转化的重要力量，应该是民族优秀文化与世界先进文明成果交流借鉴的桥梁”。立志于跻身世界一流大学，为国家强盛、民族复兴和人类文明演进作出更大贡献的南京大学，理所应当要承担起这样的使命与职责；而出版《南京大学学术文库》，正是我们为建设世界一流大学所作出的诸多努力之一，其现实意义与深远影响，是不言而喻的。

出版《南京大学学术文库》，应该贯彻理论联系实际、实事求是的原则与“百花齐放，百家争鸣”的方针。在此基础上，我们提倡学术创新。学术的生命、学术的价值就在于有所继承，有所突破，有所创新。创新是学术昌明、理论发展的灵魂所在。此外，在学术研究上，多学科、跨学科的研究已成为发展趋势。

新的知识增长点、新的理论突破口，往往处于学科的边缘及交叉地带。能否突破多年来业已形成的彼此分割和疏离的学科界限，携手攻关，进行多学科、跨学科的研究，是我们能否有所创造、有所突破的关键所在。

据我所知，欧美发达国家的堪称世界一流水平的研究性大学，大多有水平甚高、影响甚巨的学术期刊与出版机构。这些高水平的期刊与出版物，成为大学鲜明特色的标志之一。南京大学在近百年的办学实践中，逐渐形成了自己的办学特色和学术风格。在

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若干学科领域,南京大学不但在国内居领先地位,在国际上也接近前沿,有重要影响。《学术文库》要立足南京大学,进一步发扬我校已有的学科优势,并同时通过《学术文库》的出版,将我校正在生长发展中的新的学科影响扩展、光大,以形成南京大学新的学科优势和学术流派。对于南京大学出版社来说,能否使《南京大学学术文库》持续出版,形成特色,并在国内外学术界产生较大的影响,既是对南京大学出版社的一个挑战,又是为南京大学出版社上水平、上台阶提供的一个难得机遇。

祝《南京大学学术文库》越出越好!

1999年5月于北园

## 内 容 简 介

本专著以经济增长理论的最新发展为基本框架,由此设定理论假说,并进行变量的数理分析;在统计数据的支持下,构造经济计量分析模型,研究各种不同类型变量对经济增长的影响;在上述实证研究的基础上进行归纳总结,并把中国经济增长与有关国家的相应发展阶段进行国际比较和评价,以期从中得到更多的启示与政策含义。

本专著由导论、增长差异篇、信息产业篇、外商投资篇、金融开放篇、贸易发展篇等内容组成。导论部分主要介绍经济增长理论的演进轨迹,并对相关理论进行简要评述。增长差异篇首先以经济增长文献中的收敛性理论为基础,结合结构分析的思路,构建一个分析经济增长收敛性的理论框架,其次运用统计数据对中国省际间的经济增长差异进行系统的实证分析,试图以此为西部大开发政策提供相关的理论依据。信息产业篇论述作为新经济主要表现形式的信息技术产业的内涵与统计分类,并以此为分析框架,研究信息技术产业发展对经济增长的影响。外商投资篇主要讨论外商直接投资与经济增长之间的关系,并以东南亚国家为案例,从不同角度实证分析了国际资本流动与经济稳定之间的关系。金融开放篇重点研究中国银行业的国际化与开放问题。加入世贸组织对于中国银行业的开放将起到催化剂的作用,与此同时,外资银行的大量进入,也会在人才与优质客户上与国内银行展开全方位的激烈竞争,在金融产品与服务质量上对中国银行业产生强大的冲击。作者认为应该以积极的而不是消极的姿态去面对银行业的开放。贸易发展篇则从贸易和增长之间的影响机制入手,采用实证分析方法研究中国贸易发展与经济增长的关系。



## **A Brief Introduction**

Based on the framework of the latest development of economic growth theory, this publication proposes theoretical hypothesis and conducts variable quantitative analyses; under the supports of statistical data, we construct the econometric models to carry out researches on the impacts of different kinds of variables to the economic growth and to work on the comparative analyses on the cross-sectional data of different countries as well as the time series of one country. Based on these empirical work, this publication makes summarizations and compares the economic growth of China with the corresponding development stage of the related countries, in order to get more plentiful policy implications.

This publication is mainly comprised of the guide section, growth variance section, information industry section, foreign direct investment section, financial opening section, trade development section and etc. The guide gives a brief introduction on the progressing path on economic growth theory and makes comments on related theories. Based on the growth convergence theory implicated in the economic growth papers and combined with the structure analysis method, the growth variance section of this publication first provides a systematically theoretical framework on economic growth convergence and then uses statistical data to work on empirical analyses of the growth variance across provinces in China, hoping to provide related theoretical support for the policy. The information industry section mainly discusses the contents and classification of the information technology, as the main representative of new economy. Based on this framework this section conducts researches on the contribution of the information industry to the economic growth. The foreign direct investment section mainly discusses the relationship between the international capital movements and the economic growth. In addition, taking the southeastern countries as the samples, we make analyses on the rela-

tionship between the international capital flows and the economic Stability. The financial opening section of this publication emphasizes the researches on the internationalization and the opening of the banks in China. The entrance into the WTO will catalyze the opening of the banks in China. At the same time, the volume entrance of foreign banks and the due large quantities of capital movements will definitely stimulate severe competitions for talents and high-qualified customers between domestic and foreign banks, and give rise to the strong impacts of the financial products and service quality on domestic banks. The author proposes to take detailed measures to deal with the opening of the banks with the active attitudes. The fifth section of this publication starts with the influencing mechanism between the trade and the growth, using empirical methods to research on the relationship between the trade development and the economic growth in China.

# 前 言

这本专著是我主持的国家社会科学基金规划项目(00CJL010)“知识经济与新增长理论研究”的最终成果。

对于经济增长理论的研究一直是我的兴趣所在。1996年我完成了博士学位论文《体制转型期的中国经济增长》，主要采用计量经济方法分析影响经济增长的主要因素。1996~1998年的博士后研究则拓展了上述选题，研究视野由新古典增长理论框架下单一的计量检验和因素分析拓展到影响中国经济增长的所有可能因素的分析，形成博士后研究报告，后又由人民出版社出版专著《中国经济增长论》。随着增长理论的演进，尤其是新增长理论的发展，用于解释中国经济现实的理论工具亦日益丰富，为此我把研究的触角延伸到了新增长理论，并于2000年申请得到了国家社会科学基金规划项目(00CJL010)“知识经济与新增长理论研究”。

本专著以经济增长理论的最新发展为基本框架，由此设定理论假说，并进行变量的数理分析；在统计数据的支持下，构造经济计量分析模型，研究各种不同类型变量对经济增长的影响，并就不同国别的截面数据和同一国家的时间

## 前 言

序列数据进行比较分析；在上述实证研究的基础上进行归纳总结，并把中国经济增长与有关国家的相应发展阶段进行国际比较和评价，以期从中得到更多的启示与政策含义。本专著主要包括：导论、增长差异篇、信息产业篇、外商投资篇、金融开放篇、贸易发展篇等内容。

本专著从体系设计到最后定稿前后约五年，形成了一系列阶段性成果，部分阶段性成果曾发表于《中国社会科学》、《经济研究》、《经济科学》、《WORLD ECONOMY & CHINA》、《管理世界》、《世界经济》、《经济理论与经济管理》、《财贸经济》和《生产力研究》等学术期刊，并受到良好的社会反响。

本专著由我提出研究思路和写作提纲，初稿撰写的具体分工是：沈坤荣、马昀，导论；马俊、沈坤荣，第一、二章；胡春风、徐海涛、沈坤荣，第三、四章；沈坤荣、耿强、相文燕，第五、六章；沈坤荣、汪建、汪强，第七、八章；李剑、沈坤荣，第九章；初稿完成后我对每一章进行修改和补充并最后定稿。

作者感谢两名匿名审稿人的认真审阅，并给予了较高的评价；感谢南京大学出版社学术文库基金的资助，使本专著得以出版；感谢南京大学中美文化研究中心图书馆为本专著的写作和外文资料查阅提供便利；感谢南京大学商学院的领导为课题研究提供了良好的学术氛围。

2002~2003 学年，我被华英文教基金会选拔赴美国 STANFORD 大学经济系从事高级访问研究，有幸与众多世界著名经济学家进行面对面的交流与讨论，其中最

让我难忘的是发展经济学家麦金农(R. McKinnon)教授,他对发展中国家经济增长的关注和研究热情使我深受感动;与诺贝尔经济学奖获得者 K. Arrow 教授就内生增长理论的讨论让我领略到学术大师的智慧与风采。与 STANFORD 大学商学院的 P. Romer 教授在如何理解长期增长模型方面的讨论,让我进一步了解数学模型在分析经济问题时的真正作用。另外,特别感谢著名经济学家,斯坦福大学刘遵义(Lawrence J. Lau)教授给予的学术支持和真诚帮助。

在课题研究和专著写作过程中,一些研究人员提供了珍贵的研究资料,他们是:Jeffrey A. Frankel, Gene M. Grossman, Larry E. Jones 和 P. Romer,在此向他们深表感谢;我在参加 APEC 金融与发展项目 2002 年度论坛期间,与美国加州大学 Daniel McFadden 教授的讨论,使我对金融发展与经济增长问题有了进一步的认识;美国 BRIGHAM YOUNG UNIVERSITY 的 Kerk Phillips 博士为课题研究提供了文献资料,在此一并深表谢意。

中国经济正处于制度转型和快速增长的进程之中,任何一种现成的理论都很难解释中国的经济现实,本专著也仅仅是一个尝试。虽然我们力求完美,但由于理论功底和研究水平有限,肯定还有很多错误和不足,恳请专家学者批评指正。

沈坤荣

2003 年 5 月 8 日

## ABSTRACT

This publication is the final achievement of National Social Science Funding Project (00CJL010) "Knowledge Economy and New Growth Theory Research". Based on the framework of the latest development of economic growth theory, this publication proposes theory hypothesis and conducts variable quantitative analyses; under the supports of statistical data, we constructs the econometric models to carry out researches on the impacts of different kinds of variables to the economic growth and the comparative analyses on the cross-sectional data of different countries and the time series of one country. Based on these empirical work, this publication makes summarizations and compares the economic growth of China with the corresponding development stage of that of the related countries, in order to get much more policy implications. The main contents of this publication include: growth variance section, information industry section, foreign direct investment section, financial opening section, trade development section and etc.

Since the publication of Adam Smith's "Nation Wealth", economists have been devoted to exploring the origin of economic growth. At the same time they have also maintained zests on the variance of growth rates among different countries and regions. In the real world, the economic growth and development levels in different countries indeed demonstrated patent diversification for dozens of centuries. Therefore, exploring how to lessen the

growth variance of regional regions and steadily ameliorating the situation of the income inequality have become the common issues for both the developed and undeveloped regions. Based on the growth convergence theory implicated in economic growth documents and combined with the structure analysis method, the first section of this publication tries to provide a systematically theoretical framework on economic growth convergence and to do empirical analyses on the growth variance across provinces in China, hoping to provide related theory evidence for the policy. This section makes an all-around reviews and comments on the economic growth documents from the neoclassical economic growth theory to the latest economic growth theory, discussing the related convergence implications. The Neoclassical Growth model ever implicated the absolute convergence, but the New Growth theories cast doubts on the convergence after introducing the human capital and endogenizing the technology progress, and raise the concept of conditional convergence from the empirical perspective. The technology diffusion model proposes that the low imitation cost of the technology will lead to the convergence. However, the leapfrogging model denotes the probability that the undeveloped countries could catch up with and exceed the developed countries. "Club Convergence" theory explores the causes that result in the persistent regional growth variance in this real world from the multiple perspectives. The second chapter carries out a multi-variable econometric analysis on the growth variance across provinces in China since 1949, especially since the enforcement of the reform and open-door policy in 1978. Our results show that not only the club convergence has been obviously

## ABSTRACT

exhibited, that is, the output per capita congregates within the east, middle and west districts respectively; but also the conditional convergence has been identified, that is, given the same level of human capital, market openness and other factors the economic provinces have demonstrated a certain growth convergence. The outcome of this chapter also shows that the variance of the industrialization across provinces affects the growth convergence significantly.

The second section mainly discusses the relationship between the information technology industries, as the main representative of new economy, and the economic growth. Using for reference the research framework that the information technology contributes to the economic growth in developed countries (mainly the US), we conduct researches on the impact of the information technology development to the economic growth. The third chapter starts from the argumentation of the information technology industries in foreign countries and lists the different opinions on the information technology industries. Based on the above work, we make documentation on the domestic researches on this topic, which demonstrates the actuality and the deficiency of this research. Based on the classification of the information technology industries of the US department of business affairs, we start with the code lists of China national economy and carry out a research on the classification of the information technology industries in China. This is a breakthrough compared to previous research and also a creative work as for the current connotation of information technology. By continuously integrating all indus-



## **ABSTRACT**

tries, we bring forward a classification on the information technology in China and make a further explanation. Finally, we point out the necessity of the statistics in information technology industries in contemporary domestic research field. The third chapter can be said as the theoretical preparation, and the fourth chapter makes an empirical analysis on the information technology industries from all aspects. This chapter is divided into three parts: the level analysis on the information technology industries; the gross analysis on the information technology industries; the structure analysis on the information technology industries. The first part makes an explanation on the current development condition of the information technology industries in China, and then adopts different measuring methods to make comparisons on the information levels of the information technology industries between the China and some foreign countries; from the gross perspective of the information technology industries, the second part analyzes the correlation between the GDP and the information technology industries, based on the time-series and cross-sectional province data; from the structure perspective, the third part carries out a research on the information technology industries, and makes comprehensive argumentation and analysis on the promotion of the industries structure enhancements, the employments structure knowledge improvement and the investment structure information advancement.

The third section mainly discusses the relationships between the international capital movements and the economic growth. Since the 1980s, the Foreign Direct Investment (FDI) has become a main way of international capital movements. The abun-