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## 现代经济增长中的结构效应

## 作者近照

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周振华 著

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## 作者介绍

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周振华，1954年生于上海。1970年去黑龙江香兰农场务农。1978年2月考入牡丹江师范学院政治系，1982年毕业，获法学学士学位。同年被录取为福建师范大学政教系硕士研究生，专攻《资本论》。1984年获经济学硕士学位，分配到南京大学经济系任教，1986年任讲师。1987年被中国人民大学免试录取攻读博士学位，1990年初提前获取经济学博士学位。现为上海社会科学院经济研究所研究人员。

自1985年以来，周振华先后出版了《产业政策的经济理论系统分析》等数部专著，还在《经济研究》等刊物上发表了《经济政策目标的适度选择》等100余篇论文。周振华参与撰写的《中国改革大思路》一书，曾获1988年孙冶方经济科学著作奖。

# ABSTRACT

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## THE STRUCTURAL EFFECT IN MODERN ECONOMIC GROWTH

—A MECHANISM ANALYSIS OF  
INDUSTRIAL STRUCTURE

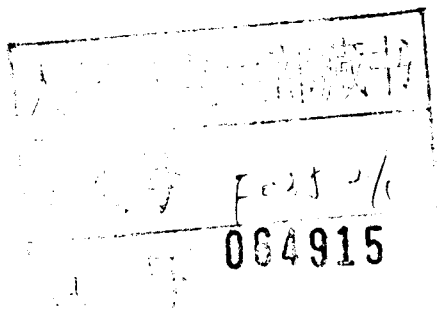
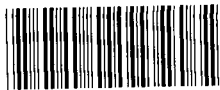
In today's theoretical circle, the studies on industrial structures are mainly confined with in analysis of the present conditions of the structures and their, changing trends but this book aims at a tentative analysis of the mechanism of industrial structure a field which lies between the above two. It covers the effect on economic growth of the structure's present state and changing tendencies, namely, structural effect on modern economic growth, as well as the mechanisms of its function and realization so as to provide a theoretical basis and guidelines for formulating industrial policy.

The basic argument of this book is that, in the international process of modern economic growth, structural effect is an im-

portant variable which determines economic growth. This argument comes from a criticism on traditional economic growth theory, as well as from an analysis of and conclusion drawn from the essence of complicated economic activities. That is the thread along which the book will develop.

Undoubtedly, the structural effect in modern economic growth has attracted people's attention. Some noted economists, such as Walt W. Rostow and Hollis Burley Chenery, have done some research and exposition on this aspect. This book, however, displays originality in a systematic study of structural effect and theoretical expounding of its function mechanism, trying to provide a comprehensive theoretical model of the effect.

The theoretic system of this book develops from the abstract to the concrete. First, in the abstract, by taking industrial structure as a "white box", and the intermediate product movement — inter-industrial input-output-as its analysis model, the author



为了全面地、系统地反映当代经济学的全貌及其进程，总结与挖掘当代经济学已有的和潜在的成果，展示当代经济学新的发展方向，我社决定出版“当代经济学系列丛书”。

“当代经济学系列丛书”是大型的、高层次的、综合性的经济学术理论丛书。它包括四个子系列：(1)当代经济学文库；(2)当代经济学译库；(3)当代经济学教学参考书系；(4)当代经济学新知文丛。该丛书在学科领域方面，不仅着眼于各传统经济学科的新成果，更注重经济前沿学科、边缘学科和综合学科的新成就；在选题的采择上，广泛联系海内外学者，努力开掘学术功力深厚、思想新颖独到、作品水平拔尖的“高、新、尖”著作，“文库”力求达到中国经济学界当前的最高水平；“译库”翻译当代经济学的名人名著；“教学参考书系”主要出版国外著名高等院校

80年代后期 90年代初期的通用教材，“新知文丛”则运用通俗易懂的语言，介绍国际上当代经济学的最新发展。

本丛书致力于推动中国经济学的现代化和国际标准化，力图在一个不太长的时期内，从研究范围、研究内容、研究方法、分析技术等方面逐步完成中国经济学从统传向现代的转轨。我们渴望经济学家们支持我们的追求，向这套丛书提供高质量的标准经济学著作，进而为提高中国经济学的水平，使之立足于世界经济之林而共同努力。

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tries to make a study of the technical matrix level, scale-deepening and present state and changes of polymerizing quality, together with their impact on economic growth, and to reveal the effect of structural interrelation mechanism for its realization. Then, the final demand and its composition are introduced, the open input-output model is turned into a closed one, and industrial structure is dealt with as a "black box". Taking industrial structure as corresponding to demand structure, from the angle of national product movement, the author observes the degree of the structure's response to demand structural changes (structural elasticity) and its effect on economic growth, trying to reveal the mechanism of structural elasticity effect and its realization. On this basis, the book introduces variables such as resource structure and allocation structure, looking upon the industrial structure as a dynamic system which exchanges energy with the outer circumstances before

reviewing the structure's development and its effect on economic growth and revealing structural development effect and mechanism of its realization. Finally, putting the industrial structure in the large context of international divisions, the author makes a study of to what degree and in what form our domestic industrial structure has taken part in international industrial divisions and its effect on economic growth, bringing to light the mechanisms of structural opening effect and its realization.

#### **Effect of Structural Interrelations**

Structural interrelations are not only a problem of proportions between the industries, but also the aggregate of industrial stereoscopic input-output relations. It is an organism composed of three-dimension-vectors: level, scale and quality of industrial input-output.

Technical matrix level, which reflects in:

dustrial input-output, is closely related to the rate of economic equilibrium growth. Once the technical matrix level is determined, we can obtain an equilibrium growth rate and the relevant production structure from non-negative matrix's Frobenius and the appropriate vectors of characteristics. With technical matrix level raised, changes will take place in the channels of economic equilibrium development so as to guarantee the accelerated economic growth. On the other hand, the level of industrial interrelations, which consumes a great deal of energy, is unlikely to support the speedy economic growth. A lift in the industrial input-output level is determined not only by correct selection structures but also by adjustment of the interests among the industries.

The enlargement of transaction scale among sectors is shown in the deepening of input-output interrelation level, which is mainly brought about by the increase of purchase between the sectors and the sub-

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The enlargement of transaction scale among sectors is shown in the deepening of input-output interrelation level, which is mainly brought about by the increase of purchase between the sectors and the sub-

stitutions of manufactured goods for primary products. An analysis of both sum totals and sectors reveals the close relativity between deepening of interrelations and economic growth. Its mechanism of function lies in the fact that the process of qualitative change, during which the social division of labour accelerates self-reproduction, has greatly improved people's ability in receiving and handling outside information and acquiring knowledge and techniques, whereas the economic efficiency is a positive function in the improvement of the ability. Nevertheless, the mechanism which guarantees the establishment of the relationship is based on the fund accumulation for starting economic growth, the adjusting device which is to lift the degree of equilibrium, and the efficiencies of economic feedback and circulation which act as control variables.

The polymerizing quality of structural interrelations means the coupling styles among industries and their overall function.

The organic integration of the three basic styles parallel coupling, series coupling and feedback coupling reveals the proportions between the sectors, i.e. the orders for productive continuation, complexity of pluralism and continuity of circulation. The improvement of the polymerizing quality will promote efficiency in resources utilization and external economic effect so that it will have an impact on economic growth. The target of quality improvement should not be for the short-run balance but for long-term equilibrium. In the process of long-term equilibrium we cannot simply repress the long-run procedures and supplement the short-run ones, but we can implement different policies in accordance with different situations, paying close attention to embodied short-run and long-term equilibriums (That is, the long-run sectors change its original point of structural equilibrium-point by reducing input resources.). Price mechanism plays an important role in the two equili-

briums. Meanwhile, in order to strengthen the stability of structural polymerizing quality, we can only seek to keep the relative equilibrium and to realize, in the temporary in balance, continuative dynamic equilibrium.

### **Structural Elasticity Effect**

When supply structure is taken as a function of demand structure, the degree of demand structure's reaction to the changes in supply structure will become an external expression of structural interrelation effect, i.e. structural elasticity effect.

There is a distinction between quantitative and qualitative in the changes of supply structure — the former is the changes in product structure in which the components of latent production ability are supposed to be unchanged; the latter, changes in latent production capacity. Therefore, the response of supply structure to changes

in demand structure can be divided into two categories with an essential distinction: quasi-elasticity and elasticity. The value of structural elasticity can be measured in terms of aggregate or individual summary.

When the structural elasticity equals one, the change of industrial structure have the largest positive effect, which is shown in two aspects: one is the maximized utilization of gross product; the other is the maximized efficiency in utilizing production capacity. These constitute the internal measurements of structural elasticity effect.

Although structural elasticity means the degree of supply structure's response to changes in demand structure, nevertheless, whether the maximized utilization of gross product and maximized efficiency in utilizing production capacity can be brought about by the response is still dependent upon the changes in both supply and demand. The demand analysis of structural



elasticity effect is to observe the different impacts on structural elasticity effect of the structure's regular changes, lagging changes and leading changes on the supposition that the changes of supply structure are conformed with the law. The supply analysis of structural elasticity effect is to study the different impacts on structural elasticity effect of the structure's regular changes, distorted changes and rigid changes, provided that demand structure changes regularly. Finally, taking China as an example, the author tries to make a comprehensive analysis of the structural elasticity effect by reviewing the changes in demand and supply.

### **Structural Development Effect**

Industrial structural development is a change under alternate function in which the industrial structure exchanges energy with outer circumstances, it is the external