中国经济文库
应用经济学精品系列

转型时期我国经济周期波动特征及影响因素研究

陈　杰◎著

Research on Characteristics
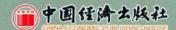and Influence Factors
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序

自 20 世纪 50 年代我国建立计划经济体制以来，经济发展就一直是在不断的起伏波动中前进，其间不乏较为严重的经济过热和经济过冷，对宏观经济的平稳健康运行产生了很大冲击。伴随着我国经济体制的转型和发展模式的转变，我国的经济周期波动已经进入了一个崭新的阶段，我国政府已经充分认识到经济周期波动对于我国社会主义市场经济发展的重要性。因此，研究转型时期中国经济周期波动问题，对于把握我国经济增长，驾驭经济周期波动，保证国民经济持续、稳定、健康增长有重要的理论和实践意义。

国外学界对经济周期波动的研究由来已久，相关研究产生了大量的有关经济周期的基本理论和方法，形成了关于经济周期的不同流派，如凯恩斯经济周期理论、货币主义经济周期理论、实际经济周期理论、新凯恩斯经济周期理论等等，这些经济周期理论从不同角度研究了经济周期的形成原因、形成机理，得出了许多重要的结论。但鉴于我国处于转型时期的特殊国情，国外已有研究的结论并不能完全适用于我国的经济周期波动。国内现有研究文献在揭示我国经济周期波动的一般经验规律和原因方面虽然也作出了一些很好的尝试，但总体而言研究尚不够全面和深入，忽略了一些重要问题，如我国经济周期波动是收敛还是发散的？具有怎样的经典特征和现代特征？我国经济周期波动是需求驱动型还是供给驱动型？价格和货币冲击是如何影响我国经济周期波动的？经济结构（需求结构、产业结构和所有制结构）的变动又会对经济周期波动产生什么样的影响？体制转轨在我国经济周期波动的过程中扮演了什么角色？对这些关键问题的回答显然对于我们更深刻地理解转型时期我国经济周期波动具有重要意义。

陈杰博士的著作《转型时期我国经济周期波动特征及影响因素研究》就是在国内外关于经济周期波动研究的基础上，对转型时期我国经济周期

波动的特征及影响因素进行了新的探索。书中首先梳理了西方经济周期理论，包括早期经济周期理论和现代经济周期理论，并在此基础上，构建研究转型时期我国经济周期波动特征及影响因素的框架；然后在此研究框架下考察了转型时期我国经济周期波动的特征，包括敛散性特征、经典特征和现代特征，探讨了转型时期我国经济周期波动的主要影响因素，包括需求因素、供给因素、价格因素和体制因素，最后作者在本书研究结论的基础上，就如何避免经济出现强幅波动，保持国民经济平稳快速地增长，提出了相应的政策建议。总体而言，作为探索和阶段性研究成果，本书的主要创造性工作包括如下几点。

第一，基于萨缪尔森"乘数－加速数"模型，首次实证分析了转型时期我国经济周期波动的敛散性；并使用 Logistic 回归模型动态刻画了转型时期我国经济周期处于扩张状态的概率变动趋势。

第二，创造性地使用方差分解和滚动方差分解法，基于全期样本和滚动样本详细地考察了需求构成成分（居民消费、政府消费、投资、净出口）波动对我国经济周期波动的影响；并研究了需求结构、产业结构和所有制结构变动的共同作用对我国经济周期波动的影响。

第三，根据"柯布－道格拉斯"生产函数模型，估计出转型以来我国的全要素生产率（TFP），考察了全要素生产率和要素投入对经济增长的贡献；并在 VAR 模型框架下研究供给因素（全要素生产率冲击）和需求因素（投资冲击）对我国经济周期波动的影响。

第四，基于"状态－空间"模型的可变参数模型估计了"产出－物价"菲利普斯曲线，首次完整地揭示了转型时期我国经济波动和价格波动之间的动态变化过程；并研究了价格冲击、货币冲击对我国经济周期波动的影响。

第五，基于萨缪尔森"乘数－加速数"模型，创造性地将投资分为政府投资和民间投资，首次从长期和短期的不同维度以及微观和宏观的不同层面细致而全面地探讨了体制转轨对经济周期波动产生冲击的机制；并对这种机制进行了实证检验。

经济周期波动不仅是个理论问题，更是个实践问题。本书借鉴现代经济周期理论的最新成果，依据"理论梳理和分析——理论假说——实证支持"的研究范式，紧跟目前国内外学术界有关经济周期问题定量研究的导

向，不仅应用常规的时间序列分析和回归分析方法，还尝试运用协整理论、向量自回归模型、误差修正模型、脉冲响应函数等非平稳时间序列分析方法以及 Logistic 回归模型、可变参数模型、滚动方差分解等动态分析方法，综合研究转型时期我国经济周期波动中需求因素、供给因素、价格因素以及体制因素等的影响。当然，本书对论题的探索主要还是基于宏观层面的，如何深入到中观甚至微观层面考察经济周期波动特征，探讨经济周期波动影响因素，是需要进一步研究的重要课题。

全书结构合理，逻辑性强，文字流畅且论证充分，资料丰富，运用得当。纵览全书，确实有不少观点可供参考，值得一读。鉴于此，我很高兴为之作序，并乐于把这部著作介绍给大家，供大家参考和讨论。

2013 年 9 月于中央财经大学

前　言

经济周期波动是经济运行的基本特征，在任何体制和任何发展阶段上，经济增长都不可能是匀速的、直线的。经济高速增长和经济周期性波动是我国现代经济增长最重要的两大特征。

1978 年年末我国实行改革开放政策，正式开始了由计划经济向市场经济转型的进程，因此本书所指的转型时期即为改革开放以来的这段时期。随着社会主义市场经济体制改革的不断深入和发展模式的转换，市场机制的作用日益增强，我国经济周期波动进入了一个与以往不同的新阶段。对改革开放 30 年来我国经济周期波动出现的新特征进行全面、系统的测定和分析，进而探索转型时期我国经济周期波动的影响因素，对于我们认识社会主义市场经济条件下经济周期波动的客观规律，把握经济运行的发展态势，适时、适度地采取宏观调控措施，保持国民经济持续、稳定、协调发展无疑具有重要的理论意义和重大的现实意义。

本书主要研究转型时期我国经济周期波动特征及影响因素。全书共 8 章，第 1 章是导论；第 2 章是本书的理论基础，介绍了西方经济周期的主要理论；第 3 章具体考察中国经济周期波动特征；第 4 – 7 章分别探求需求因素、供给因素、价格因素对我国经济周期波动的影响；第 8 章为本书的结论与政策建议。

第 3 – 7 章是本书的核心部分，其主要内容如下：

第 3 章详细考察了我国经济周期波动的特征。首先，从萨缪尔森乘数 – 加速数模型出发，探讨转型时期我国经济周期波动的敛散性；接着，依据经典经济周期理论观点，以经济增长率为基础，对我国经济周期波动的经典特征作一般分析；然后，以现代经济周期理念为基础，使用 H – P 滤波消除宏观变量的趋势，对我国经济周期波动的现代特征作静态分析；最后，利用 Logistic 回归模型进一步对我国经济周期波动的现代特征作动态

分析。

第4章探究我国经济周期波动的需求因素。首先，使用方差分解和滚动方差分解法分析需求构成成分（居民消费、政府消费、投资和净出口）波动对我国经济周期波动的影响；接着，考察了需求结构、产业结构和所有制结构的变动趋势；最后，分析了需求结构、产业结构和所有制结构变动的共同作用对我国经济周期波动的影响。

第5章探究我国经济周期波动的供给因素。首先，利用柯布－道格拉斯生产函数模型，估计出转型以来我国的全要素生产率（TFP）；接着，考察了全要素生产率和要素投入对经济增长的贡献；最后，在 VAR 模型框架下研究供给因素（全要素生产率冲击）和需求因素（投资冲击）对我国经济周期波动的影响。

第6章探究我国经济周期波动的价格因素。首先，介绍了反映经济波动与价格波动关系的"产出－物价"菲利普斯曲线；接着，使用 OLS 法和基于"状态－空间"模型的可变参数模型分别估计了"产出－物价"菲利普斯曲线；最后，使用 VAR 模型研究价格冲击和货币冲击对我国经济周期波动的影响。

第7章探究我国经济周期波动的体制因素。首先，介绍了体制转轨与经济周期波动的相关研究文献，引入研究命题；接着，基于萨缪尔森"乘数－加速数"模型，将投资分为政府投资和民间投资，从理论上探讨了体制转轨对经济周期波动产生冲击的机制；最后，根据相关统计数据，构建计量经济模型，对理论模型中提出的命题进行实证检验。

本书得出的主要结论如下：

1. 新中国建立至今我国大约经历了 10 轮经济周期，其中改革开放以后经历了 5 轮；改革开放以后，我国经济周期波动是收敛的且波动性有了明显的降低；20 世纪 90 年代中期以后，我国经济周期波动总体上表现出明显的"缓升缓降"的特点，经济运行的稳定性逐步增强，经济增长的质量不断提高；最近一轮经济周期的波动性进一步减弱，经济增长体现出高位势、低波幅的特征，从波动方向上来看，2008 年应该是我国最近一轮经济周期的"拐点"。

2. 1979—1996 年间，我国经济周期处于扩张状态的概率变化非常剧烈，表明此间我国经济周期的波动性很强，扩张与收缩之间的状态转换较

为频繁；1996 年以后，我国经济周期处于扩张状态的概率变化较为平缓，收缩与扩张之间的状态转换明显减少，表明我国经济在 1996 年实现"软着陆"后，周期波动性已经明显趋于平缓；通过对 2006 年我国经济周期处于扩张状态概率的分析，我们发现未来经济收缩的可能性加大，但仍有较大的不确定性。

3. 从需求角度看，投资波动是引起转型时期我国经济周期波动的主要原因，它解释了 76.8% 的经济周期波动；净出口波动与其他需求构成成分波动有较强的协动性；居民消费波动较为平稳，对经济周期的波动性影响不大；政府消费波动对经济周期波动有明显的平抑作用；增加居民消费和政府消费能有效的减小经济周期波动，而增加投资和净出口则会扩大经济周期波动。

4. 在计划经济向市场经济转型的过程中，需求结构、产业结构和所有制结构变动的共同作用影响了我国经济周期波动；需求结构中消费率的降低、所有制结构中国有制经济在整个国民经济中所占比重的降低以及产业结构中第二产业增加值占 GDP 比重的相对稳定，对转型时期我国经济周期波动产生了深刻影响；提高消费率、继续降低国有制经济在整个国民经济中所占比重以及适度提高第二产业增加值在 GDP 中的比重、加大第三产业增加值在 GDP 中的比重，可以有效减小我国经济周期波动。

5. 经估算，转型以来我国资本产出弹性为 0.594，劳动产出弹性为 0.406；全要素生产率在 1992 年以前波动幅度较大且较为频繁，1992 年以后波动性逐渐降低并稳定在 2%～3% 之间；资本投入是我国经济增长的主要动力，其贡献率达到 61% 左右，全要素生产率是我国经济增长的重要力量，其贡献率达到 29% 左右。

6. 需求因素（投资冲击）和供给因素（全要素生产率冲击）是影响转型时期我国经济周期波动的两种重要的实际因素；在冲击方向上，这两种因素存在着较大的差异；在冲击时滞、冲击力度和冲击周期上，需求因素（投资冲击）体现出更短的时滞，更大的力度和更长的周期；综合比较来看，需求因素（投资冲击）的作用更重要。

7. 1978—2006 年间通货膨胀率对经济增长率的反应系数 β_t 呈现"凸型"变动模式，并且已经过了波动的顶峰，出现显著下降并逐渐稳定的趋势，这种稳定性有助于同时实现经济增长目标和稳定物价目标；各年反应

系数 β_t 均为正数，表明引起各年度经济波动的主要是总需求冲击；2002年后反应系数 β_t 基本在 0.1 左右的低位势徘徊，表明我国供给水平的显著提高已经使得经济波动对价格波动的影响逐渐减小。

8. 20 世纪 90 年代以来，价格冲击和货币冲击对于我国经济周期波动均有影响，但影响有限；相比较而言，货币供给波动对经济周期波动的冲击力度更大、周期更长；而价格波动对经济周期波动冲击的时滞更短。

9. 在体制转轨的过程中，长期经济增长主要由民间投资拉动，而政府投资不会对长期经济增长产生显著影响；在不同所有制企业经济活动波动程度的变化中，若国有制企业投资冲动越小，国有制经济的波动程度就越小，对经济周期波动的冲击也就越小；在所有制结构的变动中，若国有制经济成分占国民经济的比重越小，对经济周期波动的冲击就越小。

总之，处于转型时期的中国，经济周期波动的特征发生了深刻的变化：波动收敛且波动幅度减小，扩张期延长，20 世纪 90 年代中期以来，出现了"缓升缓降"的波动态势，经济周期波动的稳定性进一步加强，抵御各种冲击的能力增强。体制转轨在降低我国经济周期波动的过程中扮演了重要的角色，需求因素（投资冲击）是影响我国经济周期波动的主要因素，供给因素（全要素生产率冲击）和名义因素（价格冲击和货币冲击）也是影响我国经济周期波动的重要因素，此外，需求结构、产业结构、所有制结构的变动对我国经济周期波动也产生了显著的影响；近年来，随着我国供给水平的不断提高，经济波动对价格波动的影响逐渐减小，这表明总需求对我国经济周期波动的冲击在逐渐减弱。

本书主要有以下四方面的创新：

1. 基于萨缪尔森乘数－加速数模型，首次实证分析了转型时期我国经济周期波动的敛散性；并使用 Logistic 回归模型动态刻画了转型时期我国经济周期处于扩张状态的概率变动趋势。

2. 创造性地使用方差分解和滚动方差分解法，基于全期样本和滚动样本详细地考察了需求构成成分（居民消费、政府消费、投资、净出口）波动对我国经济周期波动的影响；并研究了需求结构、产业结构和所有制结构变动的共同作用对我国经济周期波动的影响。

3. 基于"状态－空间"模型的可变参数模型估计了"产出－物价"菲利普斯曲线，首次完整地揭示了转型时期我国经济波动和价格波动之间

的动态变化过程；并研究了价格冲击、货币冲击对我国经济周期波动的影响。

4. 基于萨缪尔森"乘数－加速数"模型，创造性地将投资分为政府投资和民间投资，首次从长期和短期的不同维度以及微观和宏观的不同层面细致而全面地探讨了体制转轨对经济周期波动产生冲击的机制；并对这种机制进行了实证检验。

本书存在以下两方面的不足：

1. 在特征研究方面，主要考察了转型时期我国经济周期波动的总体特征，而缺乏对结构特征的分析，例如，产业结构特征、区域结构特征等。

2. 在影响因素研究方面，主要探究了转型时期我国经济周期波动需求因素、供给因素和价格因素，而缺乏对其他重要因素的详尽分析，例如：政策因素、贸易因素等。

PREFACE

Fluctuations of Business Cycles are the basic characteristics of the economy, in any system and on any stage of development; economic growth can not be uniform and linear. Rapid economic growth and Business Cycles fluctuations are the two of the most important characteristics in China's modern economic growth.

At the end of the year 1978, China's reform and opening – up policy was implemented, started the transition process from the planned economy to the market economy, therefore the transition period in this paper is the period since reform and opening – up. With the deepening of socialist market economy reform and conversion of development models, the market mechanism is enhanced; China's Business Cycles has entered into a new stage which is different from the past. Systematic measurement and analysis of the new characteristics appearing in China's Business Cycles since the reform and opening – up 30 years, and then searching for the influence factors of Business Cycles in transition China will be no doubt of significance in both theory and practice for us to realize the objective regularity of Business Cycles, grasp the developing trend of economy in the operation, take the macroeconomic control with proper way in order to maintain the continuation, stability and coordination of the national economic development.

This paper studies the characteristics and influence factors of Business Cycles in transition China. This paper includes 8 Chapters, Chapter 1 is an introduction; Chapter 2 is the theoretical basis of this paper and introduces the main theory of western Business Cycles; Chapter 3 studies the characteristics of China's Business Cycles; chapter 4 – 7 explore how demand factors, supply factors, price factors and institutional factors affect China's Business Cycles; Chapter 8 is the conclusions of this paper and policy recommendations.

Chapter 3 – 7 are the core section of this paper, the main contents are as follows:

Chapter 3 investigates the characteristics of China's Business Cycles. First, based on the Samuelson multiplier – accelerator model, the convergence and divergence of China's Business Cycles are explored, and based on the classic Business Cycles theories, from the viewpoint of economic growth rate, the classic characteristics of China's Business Cycles are analyzed in general; then based on the modern concept of Business Cycles, the H – P filter is used to eliminate the trend of macro – variables and the modern static characteristics of China's Business Cycles are analyzed; Finally, the Logistic regression model is used to further analysis the modern dynamic characteristics of China's Business Cycles.

Chapter 4 explores demand factors of China's Business Cycles. First, variance decomposition and rolling variance decomposition methods are used to analysis how demand components (household consumption, government consumption, investment, net exports) fluctuations affect Business Cycles; then studies the changes of demand structure, industrial structure and ownership structure; finally, analyzes how the changes of demand structure, industry structure and ownership structure affect Business Cycles.

Chapter 5 explores supply factors of China's Business Cycles. First, Cobb – Douglas production function model is used to estimate China's Total Factor Productivity (TFP) during transition period; then investigates Total Factor Productivity and factors inputs contribution to economic growth; Finally, in the VAR model framework, studies how supply factors (Total Factor Productivity shocks) and demand factors (investment shocks) affect Business Cycles.

Chapter 6 explores price factors of China's Business Cycles. First, introduces "output – price" Phillips curve which reflects the relationship between Business Cycles fluctuations and price fluctuations, then the OLS method and time – varying parameter model which based on the "state – space" model are used to estimate the "output – price" Phillips curve. Finally, VAR model is used to study how price shocks and monetary shocks affect Business Cycles.

Chapter 7 explores institutional factors of China's Business Cycle. First, re-

views the research literature about institutional transition and China's Business Cycle, and introduces research propositions; Then, based on Samuelson "multiplier – accelerator" model, the total investment is divided into government and private investment, and theoretically discussed the mechanism of the impact of institutional transition on China's Business Cycle; Finally, based on the relevant statistical data, builds econometric model and empirical exams the research propositions proposed in the theoretical model.

In this paper, the main conclusions are as follows:

1. Since the new China was set up, China has experienced around 10 Business Cycles. After reform and opening – up, our country has undergone 5 Business Cycles. Since reform and opening – up, China's Business Cycles are convergence and volatility significantly reduced, after the mid – 90's in 20th century, overall volatility of China's Business Cycles shows "slow – rise and slow – decline" features, the stability of the economy is gradually enhanced and the quality of economic growth continues to improve; the volatility of the latest round Business Cycles is further weakened, economic growth reflects a high potential, low – volatility characteristics; from the view of the direction of fluctuations, the year of 2008 should be "turning point" of the latest round Business Cycles in China.

2. During 1978 – 1996, the probability of China's Business Cycles in expansion state changes very intense, indicating that the volatility of China's Business Cycles is strong; the situation conversion between the expansion stage and the contraction stage is more frequent; after 1996, the probability of China's Business Cycles in expansion changes more gentle, the situation conversion between the expansion stage and contraction stage decreased significantly, indicating that after China's economy achieves a soft landing in 1996, the volatility trends have been significantly slowed; through the analysis of the probability of China's Business Cycles in expansion state in 2006, we found that the possibility of future economic contraction is increasing, but there are still large uncertainties.

3. From the viewpoint of demand, investment fluctuations are the main reasons that caused Business cycles in transition China, it explained 76.8% of Business Cycles fluctuations; net export fluctuations has a strong co – movement with

other demand components fluctuations; household consumption fluctuations is relatively stable, which has little effect on Business Cycles fluctuations; government consumption fluctuations has obvious suppressing effect on Business Cycles fluctuations; increase in household consumption and government consumption can effectively reduce the Business Cycles fluctuations, however, increase in investment and net export will be amplify Business Cycles fluctuations.

4. In transition process from the planned economy to the market economy, the combined effects of demand structure, industry structure and ownership structure changes affect China's Business Cycles; reducing the consumption rate in demand structure, reducing the share of state – owned economy in ownership structure as well as the relative stability of the secondary industry's share in industry structure, have a profound impact to Business Cycles in transition China; improve the consumption rate and reduce the share of state – owned economy, appropriately enhance the secondary industry's share in GDP and increase the tertiary industry's share in GDP can be effectively reduce China's Business Cycles fluctuations.

5. Through estimating, during transition period, China's capital – output elasticity is 0. 594, labor – output elasticity is 0. 406; before 1992, the fluctuations of Total Factor Productivity are larger and more frequent; after 1992, volatility gradually reduced and stabilized at 2 ~ 3% ; capital investment is the main power of China's economic growth, the contribution rate is around 61% , Total Factor Productivity is an important force of China's economic growth, the contribution rate is around 29% .

6. Demand factor (investment shocks) and supply factor (Total Factor Productivity shocks) are two of the most important real factors which affect Business Cycles in transition China; on impulse directions, the two factors have significant difference; on impulse delay, impulse intensity, and impulse cycles, demand factor (investment shocks) impact on Business Cycles fluctuations with a shorter delay, greater intensity, and longer cycles; comparatively, the role of demand factor (investment shocks) is more important.

7. During 1978—2006, the reaction coefficient β_t of inflation rate to eco-

nomic growth rate is "convex – type" change mode, and has been through the pinnacle of volatility, shows a significant decline and becomes more stable, this stability can help to achieve goals of high economic growth and price stability objectives at the same time; each year's reaction coefficient β_t is positive, indicating that the main cause of annual Business Cycles fluctuations is aggregate demand shocks; after 2002, the reaction coefficient β_t hovers around 0.1, indicating that the significant improvement of China's supply level has resulted in the gradually decrease of influence of Business Cycles fluctuations to price fluctuations.

8. Since the early 90's in 20 century, price shocks and monetary shocks in China have affected the Business Cycles, but the impact is limited; comparatively, the monetary shocks impact on Business Cycles fluctuations with a greater intensity, longer cycles, however, the price shocks impact on Business Cycles fluctuations with a shorter delay.

9. In the course of the institutional transition, long – term economic growth is pulled mainly by private investment, while the government investment doesn't significant it; In the changing of different ownership enterprises in volatility of economic activity, if the investment impulse of state – owned enterprises becomes smaller, the volatility of state – owned enterprises' economic activity is smaller, the impact on the business cycle is also smaller; In the changing in ownership structure, if the state – owned economic sectors accounted for the smaller proportion of the national economy, the impact of business cycle is smaller.

In short, during transition period, the characteristics of China's Business Cycles have undergone a profound change: volatility convergences and decreases, expansion period extended, since the mid – 90's in 20th century, the situation of volatility shows "slow – rise and slow – decline" features, the stability of volatility becomes more strengthen, the ability to withstand various shocks enhanced. Institutional transition plays an important role in the process of reducing fluctuations of China's Business Cycles, demand factors (investment shocks) are major factors which influence China's Business Cycles, supply factors (Total Factor Productivity shocks) and nominal factors (Price shocks and monetary shocks) are important factors which influence China's Business Cycles, in addition, de-

mand structure, industry structure and ownership structure changes also have a significant influence to China's Business Cycles; in recent years, with the level of China's supply continuously improved, the influence of Business Cycles fluctuations to price fluctuations gradually decreased, indicating that the impact of aggregate demand to Business Cycles fluctuations gradually weakened.

This paper has the following four innovations:

1. Based on the Samuelson multiplier – accelerator model, the convergence and divergence of China's Business Cycles is explored for the first time, and the Logistic regression model is used to dynamically depict expansion probability in China's Business Cycles during transition period.

2. Creatively using variance decomposition and rolling variance decomposition methods, based on the whole samples and the rolling samples, how demand components (household consumption, government consumption, investment and net export) fluctuations affect China's Business Cycles is studied, then how demand structure, industrial structure and ownership structure changes affect China's Business Cycles is studied.

3. Using time – varying parameter model which based on the "state – space" model estimates "output – price" Phillips curve, completely revealing the dynamic process between Business Cycles fluctuations and price fluctuations during transition period for the first time, then how price shocks and monetary shocks affect China's Business Cycles is studied.

4. Based on Samuelson "multiplier – accelerator" model, the total investment is creatively divided into government and private investment, and the mechanism of the impact of institutional transition on China's Business Cycle is detailed and comprehensive studied from a long – term and short – term as well as micro and macro perspective for the first time, then this mechanism is examed by an empirical model.

This paper has the following two weaknesses:

1. In the research of characteristics, general characteristics of Business Cycles in transition China are mainly studied, but lack of analysis of structural characteristics, such as industrial structure characteristics, regional structure charac-