China's Macro Control Policy

Subjects: Political Science
Submitted by: Songping Zhu

(This entry belongs to Entry Collection "Sustainable and Resource – Efficient Homes and Communities")

Definition

Macro control refers to the adjustment and control of the whole social economy in order to promote the development of the market and standardize the operation of the market. Output growth and technological progress show the performance of economic growth in gross and efficiency, respectively, which is the external performance and internal driving force of economic growth. To achieve long-term sustainable economic development, it is necessary to consider both the aggregate problem and technological progress. In this context, we attempts to explore the effectiveness of China's macroeconomic regulation and control policy on output growth and technological progress under the economic policy uncertainty. Specifically, this paper analyzes the effectiveness of macroeconomic regulation and control policy on China's output growth and technological progress in an uncertain environment, and then makes an empirical study by constructing a time-varying parameter vector autoregression model (TVP-VAR). Furthermore, the simulation test of the relevant results is carried out using the counter-fact analysis method.

1. Introduction

China's economy has entered a new normal. To achieve economic growth in the future, it is important to consider both the scale of total output and the efficiency of growth. Exploring how macroeconomic regulation and control policies affect economic growth under policy uncertainty, especially in terms of growth efficiency and output size, is a frontier and difficult topic in the current research.

The uncertainty of one country's economic policy can come from two sources: (1) the change of its internal economic environment, the process of policymaking and changing; and (2) the transmission of the uncertainty from other countries' economic policies. The sharp rise in international economic policy uncertainty is mainly due to large-scale policy changes, financial crisis, geopolitical risks, European sovereign debt crisis, Brexit, Sino–US trade friction, and other unexpected economic and political events. As the world's second-largest economy, China is affected by international economic policy uncertainties, such as trade frictions between China and the US in recent years, and the US containment policy of "Decoupling" from China. At the same time, as China is undergoing an economic structure transformation and upgrade, there are internal conflicts and dilemmas among the four objectives of macro-control, namely, stabilizing growth, adjusting the economic structure, promoting reform, and preventing risks, which are difficult to be solved by the combination of one or several policies. Economic policy switching between regulatory objectives will further increase the degree of economic policy uncertainty[1].

Since the global financial crisis in 2008, governments have made a series of policy changes to promote economic recovery. However, in the past 10 years, the world economy has recovered much more slowly than expected. In this context, some scholars began to explore whether the uncertainty of economic policy has slowed down the economic recovery. Relevant studies mainly explored the impacts of economic policy uncertainty on investment[2][3], imports and exports[4], and innovation [5]. However, there are only a few studies on the effectiveness of macro-control policies in the uncertain environment. At present, China insists that the market plays a fundamental role in the allocation of resources, and China's market economy is constantly improving. However, the opening level of China's market economy still lags behind that of the developed countries, especially when it is hit by uncertainties, the hand of government still plays a huge role in economic activities. Therefore, taking China as the research object to study the effectiveness of macro-control policies in the uncertain environment will make the research results more

effective.

With the development of a market-oriented economy and the improvement of interest rate transmission channels, the role of quantitative monetary policy has been greatly reduced, and China's monetary policy framework is changing from quantitative type to price type. According to the national development strategy and the industrial policy, the credit policy provides either the credit support or the restriction to the specific object, thus achieves the adjustment economic structure function. China's capital market is not yet perfect, and financing difficulties are still important problems faced by many enterprises. Especially for small and medium-sized enterprises, loans from banks are the main way to obtain funds, the adjustment of credit policy will have an important impact on the market. In the current uncertain market environment, stable growth and structural adjustment are the keys to maintain China's economic development in the future. The uncertainty of economic policy not only brings pressures to the economic operation, but also makes it difficult to select and operate the macroeconomic regulation and control policy. At the same time, it has been found that economic policy uncertainty has a non-linear effect on the macroeconomy. For example, Nodari [6] empirically tested the impact of policy uncertainty on the US macroeconomy using a non-linear smooth-switching VAR model, and found that, compared with economic booms, policy uncertainty has a more negative impact on the US macroeconomy during the economic downturn. Zhang and Wang [7] investigated the non-linear macroeconomic effect of China's policy uncertainty based on threshold VAR model and counterfactual analysis, it was found that policy uncertainty has a negative impact on output growth during the economic boom, while in an economic downturn, policy uncertainty will have a positive impact on output growth by stimulating consumption and business investment. As a result, macroeconomic regulation and control policies in different uncertain environments may also be heterogeneous. This leads us to the following questions: in the face of varying degrees of economic policy uncertainty, how effective are monetary policy and credit policy? At the same time, are there any differences and similarities in the effects of these two kinds of regulation policies on output and technological progress? Sorting out these questions will not only enrich existing research, but also provide empirical evidence for policymaking in the macroeconomic regulation and control.

2. Effectiveness Analysis of China's Macro Control Policy

Promoting economic growth, maintaining price stability, increasing employment, and maintaining the balance of payments are four major goals of the government's macroeconomic regulation and control. To adapt to the characteristics of development in different periods, regulatory policies will switch among different goals. This paper focuses on the effect of price-based monetary policy and credit policy on output and technological progress.

The uncertainty of economic policy will bring some problems to market participants, such as information asymmetry and incomplete information. In the face of uncertainty, it becomes more difficult for financial institutions to evaluate the loan purpose and investment projects of enterprises, and banks and other lending institutions will become more cautious. For risk prevention, it will increase the level of credit interest margin and cause the rise of the enterprise loan cost. At the same time, the increase in uncertainty will lead to the aggravation of investment risk. According to the real option theory, investors are likely to delay the investment decision out of "prudent investment". The above two factors will reduce the sensitivity of investment demand to interest rate changes under the uncertainty of economic policy, and the macroeconomic regulation effect of monetary policy will be weakened. Although China's highly centralized political structure promotes the rapid economic growth to a great extent, and has a decisive impact on the output effect of economic policy uncertainty [7], the change of macro-control policy itself is an important source of economic policy uncertainty, and the control effect of policy will be greatly reduced.

When the external environment changes dynamically, enterprises lack complete information about customer demand, and the uncertainty of macroeconomic policy can also urge enterprises to seek a "self-development" effect by increasing R & D investment. Based on the Schumpeter model, Brouwer [8] also found that uncertainty can stimulate the diffusion of knowledge and other information, improve the

utilization rate of human capital, and then improve the innovation efficiency of enterprises. However, Manso [5] believes that the success of innovation projects is largely related to economic policies, so the value of waiting options is more important for enterprises' R & D and innovation activities. When enterprises are faced with high uncertainty environment, enterprise innovation projects will be delayed.

In the aspect of credit policy, in the face of uncertain market environment, in order to stimulate economic growth, the government will strategically provide low-cost loans or financial support to enterprises in some industries. This process will not only increase output, but also reduce efficiency. Therefore, the formulation and implementation of credit policy has higher requirements for policy makers. Research by He and Wu [9] showed that economic policy uncertainty will weaken the risk-taking and credit growth of banks, while Chinese state-owned banks tend to take risks. Balcilar et al. [10] found that economic policy uncertainty can be transmitted to economic fluctuations by influencing medium and long-term loans.

For a long time in the past, economic growth has been the assessment target of local governments in China. Local governments are likely to intervene or guide credit funds into state-owned enterprises which are more related to the government but have lower innovation efficiency, or support backward enterprises, which will lead to the decrease in resource allocation efficiency of credit funds. In addition, the rapid development of the real estate industry has not only squeezed the investment scale of the manufacturing industry, increased the survival difficulty of the manufacturing industry, but also caused price distortion and reduced the allocation efficiency of market resources [11]. Therefore, this paper puts forward two hypotheses.

Hypothesis 1 (H1). Under the uncertainty environment, the rise of interest rate will lead to the decline of output, but will promote technological progress, and this effect is different under different degrees of uncertainty.

Hypothesis 2 (H2). Under the uncertainty of economic policy, credit growth can still bring output growth, but the impact on technological progress may be either promoted or inhibited.

3. Empirical Results

 In order to clarify the effectiveness of the macroeconomic regulation and control policy in the context of economic policy uncertainty, this paper analyzes the effectiveness of the macroeconomic regulation and control policy using China's data from the second quarter of 2003 to the fourth quarter of 2017. TVP-VAR model and counterfactual analysis are used to study the effectiveness of price monetary policy and credit policy in regulating output and technological progress under uncertainty.

The results show that: under the uncertainty environment, the direction of price monetary policy on output has not changed, and the effect of interest rate rise on output is negative, and this impact is stronger in the short term than in the medium and long term. However, different from the results in the main literature, this paper finds that under the uncertainty environment, the effect of interest rate rise on technological progress is positive, and the effect intensity is also stronger in the short term, and weaker in the medium and long term. Under the uncertainty, the effect of interest rate change on output and technological progress is time-varying. Under the moderate uncertainty, the effect of price monetary policy on output is stronger. This implies that the degree of uncertainty of economic policy should be fully considered in the implementation of price oriented monetary policy to ensure the expected regulatory effect.

Credit growth can promote output growth, and the regulation effect of credit growth on output growth is mainly reflected in the short term. The effect of credit growth on output growth and technological progress is not time-varying. It is worth noting that the impact of credit growth on technological progress is not significant in the uncertain environment. Further research using the counterfactual analysis method shows that the uncertainty environment will reduce the regulation effect of credit policy on output growth, but the impact is not significant. Generally speaking, the impact of credit growth on technological

progress is not significant.

References

1. Scott R. Baker; Nicholas Bloom; Steven J. Davis; Measuring economic policy uncertainty. *Econ* **2016**, *131*, 1593-1636.
2. Quang Nguyen; Trang Kim; Marina Papanastassiou; Policy uncertainty, derivatives use, and firm-level FDI. *Journal of International Business Studies* **2017**, *49*, 96-126, 10.1057/s41267-017-0090-z.
3. Brandon Julio; Youngsuk Yook; Political Uncertainty and Corporate Investment Cycles. *The Journal of Finance* **2012**, *67*, 45-83, 10.1111/j.1540-6261.2011.01707.x.
4. Andrew Greenland; Mihai Ion; John Lopresti; Exports, investment and policy uncertainty. *Canadian Journal of Economics/Revue canadienne d'économique* **2019**, *52*, 1248-1288, 10.1111/caje.12400.
5. Gustavo Manso; Motivating Innovation. *The Journal of Finance* **2011**, *66*, 1823-1860, 10.1111/j.1540-6261.2011.01688.x.
6. Gabriela Nodari; Financial regulation policy uncertainty and credit spreads in the US. *Journal of Macroeconomics* **2014**, *41*, 122-132, 10.1016/j.jmacro.2014.05.006.
7. 28.Zhang, Y.P.; Wang, Q.; The Nonlinear Macroeconomic Effect of Policy Uncertainty and Its Influencing Mechanism. *Financ. Trade Econ* **2016**, *37*, 116–133.
8. Erik Brouwer; Alfred Kleinknecht; Firm size, small business presence and sales of innovative products: A micro-econometric analysis. *Small Business Economics* **1996**, *8*, 189-201, 10.1007/bf00388647.
9. He, G.H.; Wu, P.; China's Economic Policy Uncertainty and Bank's Risk-Taking. *Econ. Surv.* **2019**, *37*, 159-168.
10. Mehmet Balcilar; Riza Demirer; Rangan Gupta; Reneé van Eyden; The impact of US policy uncertainty on the monetary effectiveness in the Euro area. *Journal of Policy Modeling* **2017**, *39*, 1052-1064, 10.1016/j.jpolmod.2017.09.002.
11. Luo, Z.; Zhang, C.C.; Credit Expansion, Real Estate Investment and the Efficiency of Resource Allocation in Industry. *J. Financ. Res.* **2015**, *7*, 60-75.

Keywords