

# Is the Regulation Policy of Local Government Debt Effective in Controlling Stock Debt? Analysis Based on Document No. 43, 2014 of the Chinese State Council

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## Abstract

**This paper focuses on the effects of policy on the stock debt and issuance of debt of local government, which introduced by the China State Council in 2014, named the Opinions of the State Council on Strengthening the Management of Local Government Debt. This paper uses a differences-in-differences model (DID) to identify the overall effect and test the reliability of the method. The empirical study found that regulation policy did control the stock debt and debt issuance at the provincial level. But the effect on the debt issuance rate was not obvious. And the conduction mechanism of the regulation policy may be achieved by achieving incentive compatibility. This paper enriches the research on the debt of the local government and provides a reference for the formulation of incentive-compatible policies.**

## Keywords

**Debt of local government; Regulation policy; Debt management.**

## 1. INTRODUCTION

In recent years, the increasing debts of local governments in China, especially the hidden debts, have attracted great attention from the central government and all walks of life. Audit office in 2011 and 2013 respectively to carry out the national debt audit. The audit results show that by the end of 2010, the national balance of local government debt of 10.72 trillion yuan. Among them, belonging to 2008 and the debt accounted for only 51.15% of the previous year. And by the end of 2012, the local government debt balance reached 15.89 trillion yuan, up 48.2% from a year earlier, the debt increases obviously. The central government has repeatedly stressed the debt risks and asked local governments to properly deal with them, but the effect has not been significant. In 2016, international rating agencies Moody's and Standard & Poor's both concluded that the country's long-term accumulated debt problems by local governments have contributed to fiscal weakness and downgraded the country's sovereign credit rating to "negative".

The issue has once again drawn attention to the issue of local government debt, particularly its risks and impact on the economy. In fact, China has emphasized the management of local government debt since 2010, but it has failed to achieve incentive compatibility and has had little effect. In particular, the rise of hidden debt has made it difficult for the central government to monitor and assess debt risk. In 2014, the State Council issued the unprecedented No. 43 Document (Guo Fa [2014] No. 43) and revised the Budget Law in December, allowing local governments to issue bonds independently within the approved limit with their own credit. Since then, the central government has also studied and introduced a series of supplementary policies to Document 43. So how effective have these policies been? Does it make the stock of debt and the debt ratio of our country decrease? In order to identify the causal relationship between policies and debt issuance, this paper takes advantage of the temporal and spatial

differences before and after policies, evaluates the effect of policies at the provincial level based on the difference in difference method (DID), and analyzes the relevant mechanisms.

## 2. LITERATURE REVIEW

Generally speaking, local governments invest through debt to promote the improvement of people's livelihood and the development of social programs, which can promote economic growth in a certain period of time. However, when debt issuance is unconstrained, excessive government debt will crowd out private investment by raising the lending interest rate in the financial market and excessive investment, which will harm economic growth instead [1]. When local government debt accumulation is too high, its changes will exacerbate economic fluctuations and push up financial system risks, and debt governance can reduce the negative impact of excessive debt.

Existing studies believe that it is the municipal construction demand in the process of urbanization that leads to the financing behavior of local governments. Another important reason for the expansion of local debt is the mismatch of financial and administrative powers between the upper and lower levels of governments caused by fiscal decentralization [2]. Some research found that in the countries with economic transformation, fiscal decentralization makes the central government gradually decentralize the responsibility of public expenditure, and then forces local governments to make up for this gap by borrowing a lot [3]. Local government officials also have the motivation to issue excessive debt for political achievements [4-5]. And the increase of local government debt was more obvious in election years [6].

There are also a considerable number of studies that believe that the decrease of local government financial resources and the expansion of expenditure caused by the inter-governmental fiscal relationship and the soft budget constraint are the main reasons for the continuous expansion of local government debt. Local governments under the soft budget constraint may issue excessive bonds. At the same time, the central fiscal transfer payment will cause the local government moral hazard problem, and then promote the growth of local debt [7]. The adoption of fiscal subsidies and transfer payments to help local governments in countries in economic transition would distort the financial final accounts of local governments [8]. Because transfer payments can bring exclusive benefits and the cost is borne by the whole country, local governments have incentives to obtain more transfer payments, so they will issue bonds to show their financial difficulties to win more financial support [9]. Bardhan also emphasizes the role of the government in mobilizing savings and allocating credit, and argues that such intervention is more likely to lead to credit mismatches and high debt levels.

From the international experience, no matter by administrative means or market constraints for debt management, the central government's supervision can not be absent. In addition, governments at all levels and investors should strengthen their expectations on the promise that "the central government will not rescue local debts", and strengthen the budget management of governments at all levels. At the same time, economic downturns and international shocks make debt problems more likely in any economy. And good debt management can reduce the occurrence of debt default. Under the current economic background, the uncertainty of domestic and foreign economic situation is increasing, China should pay more attention to preventing debt risk, and implement effective policy norms and constraints.

### 3. DATA DESCRIPTION AND MEASUREMENT STRATEGY

#### 3.1. Data Description

Based on the bond data of Wind database, this paper conducts a manual comparison with the data of iFinD database to check the omissions and fill the gaps. Finally, a total of 23,518 bond data are obtained. Macroeconomic data are mainly from statistical yearbooks over the years. At present, we have obtained the panel data of 31 provinces (municipalities directly under the central government) from 2008 to 2018. On the basis of all samples, this paper makes reasonable adjustments according to the applicability of the research. First of all, since China started the pilot program in Shanghai, Guangdong, Zhejiang, and Shenzhen in October 2011, Jiangsu and Shandong were added in 2013, Beijing, Jiangxi, Ningxia and Qingdao were added in May 2014. In fact, it wasn't until May 2014 that the pilot areas actually started to return on their own, and by January 2015, the new policy was implemented nationwide. The implementation of pilot cities is only half a year ahead of the promotion of national policies, which has little impact on this study. Secondly, for some provinces lacking debt data before 2014, it is difficult to evaluate them, so they should be deleted.

#### 3.2. Econometric Model

In this part, the overall impact and annual impact of the policy will be investigated respectively based on the following models. The benchmark model is constructed as follows:

$$DebtR_{i,t} = \alpha_i + \beta_t + \delta \times D_i \times After_t + \gamma \times X_{i,t} + \varepsilon_{i,t} \quad (1)$$

Model (1) is used to identify the overall effect of the policy.  $DebtR_{i,t}$  is the stock debt, issuance debt, ratio of debt or growth rate of debt;  $\alpha_i$  is a fixed effect of regions, which can control the inherent differences of different regions.  $\beta_t$  is the year fixed effect, such as the strength of financing constraints caused by monetary policy tightening, national debt issuance trend, etc.  $After_t$  is a dummy variable, and  $D_i \times After_t$  measures the change of the intervention group the implementation of the policy. It excludes the influence of common time trend.  $X_{i,t}$  is the control variable, which controls the influence brought by factors other than policy, including urbanization, population, industrial structure and development level of private economy. The coefficient of interest in this paper is  $\delta$ , which measures the effect of local debt normalization policies.

#### 3.3. Empirical Analysis

In this paper, DID method is used to estimate model(1). The experimental group was the province with the fiscal autonomy lower than 25% quartile, while the control group was the province with higher fiscal autonomy. The reasonability of this division is that local governments with poor finances rely more on issuing debt, while provinces with good finances rely less on debt and are under less control, so the policy impact is relatively smaller. There is an obvious comparability between them.

In the analysis at the provincial level, regression was carried out through the econometric model (1), and the regression results were reported in Table 1. Table 1 only reported in this paper, the attention paid by the return of the item didf results, respectively, the stock debt(BanlanceDebt), issuance debt(TotalDebt), the ratio of stock debt(rDebt, BanlanceDebt/GDP) and rate of issuance debt (trDebt, TotalDebt/GDP) as explanatory variables, four fixed effects regression control all the provinces and years, and the possible influence factors in the control, including the local population, GDP, urbanization rate, the private economic development level, and other variables. It can be seen from the regression

results that the standardized policy significantly reduces the stock and issuance of new debt at the provincial level. The effect of policy on the debt ratio is not significant, but the coefficient is also negative, which is related to the economic slowdown, that is, it is difficult for local governments to reduce the debt ratio through the rapid growth of GDP. At the same time, the growth factor of the debt stock itself is negative. At the same time, it can also be seen that the coefficient of the stock debt ratio Rdebt is estimated to be significant at the level of 10% (when  $P < 0.1$ ), but the sign direction is negative, indicating that the policy is effective in reducing the stock debt ratio. The coefficient estimate of trDebt issuance rate is not significant, but the sign direction is negative, which is consistent with the expectation.

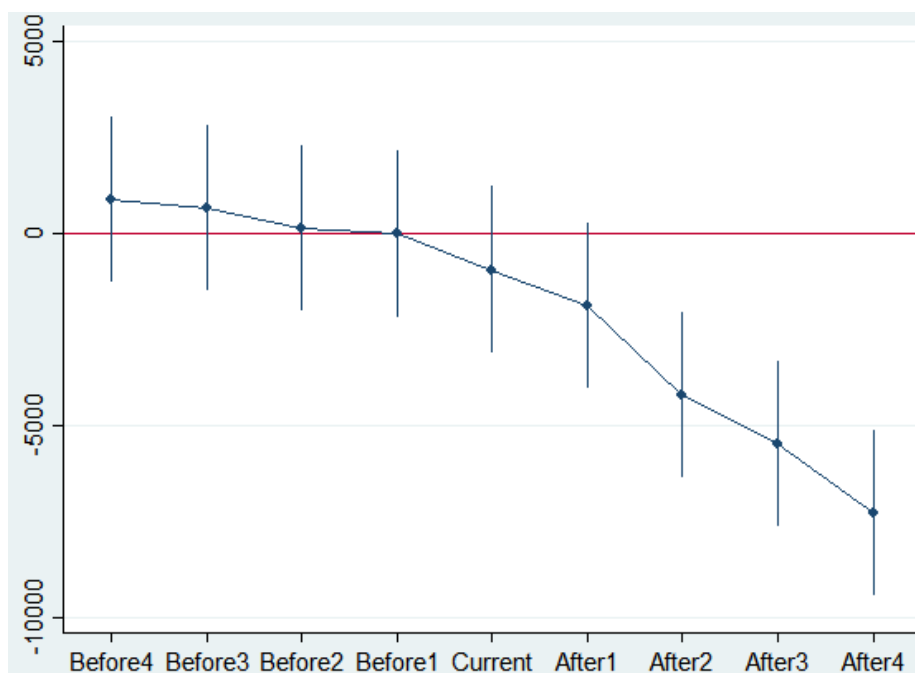
**Table 1.** Overall effect assessment at the provincial level

	(1) BanalanceDebt	(2) TotalDebt	(3) rDebt	(4) trDebt
didf	-2440.6** (-3.11)	-679.4** (-2.81)	-6.921 (-1.76)	-0.260 (-0.42)
_cons	17273.4 (1.21)	3479.1 (0.97)	-65.12 (-1.59)	-23.54 (-1.77)
N	339	339	339	339
Groups	31	31	31	31
Control	Y	Y	Y	Y

t statistics in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

### 3.4. Balance Trend Test



**Figure 1.** BanalanceDebt

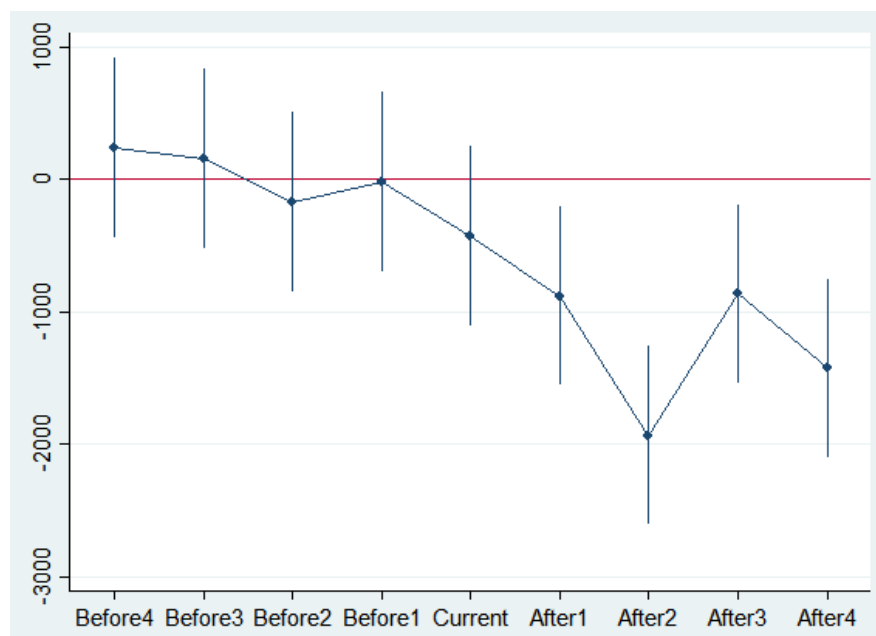


Figure 2. TotalDebt

Of course, the method of DID used above requires a strict premise, that is, the balance trend between the experimental group and the control group should be satisfied before the policy is implemented. In terms of measurement, this paper regresses the stock of debt and annual issuance by setting the cross item in different years. Model (1) is used for estimation, and the results are shown in Figure 1 and Figure 2. As shown in the figure, Current refers to the year 2014 when the policy was implemented; Before refers to before the policy was implemented; After refers to after the policy was implemented. In this paper, the cross items of the four years before or after the policy were respectively used. It can be seen that the trend of stock of debt (BanlanceDebt) and annual issuance (TotalDebt) did not change significantly before 2014, but there was an obvious trend change after the implementation of the policy in 2014. It indicates that the control group and the experimental group before 2014 meet the hypothesis of equilibrium trend. This enhances the reliability of the empirical results and analysis in the previous part of this paper.

#### 4. CONDUCTION MECHANISM OF THE REGULATION POLICY

Past policies and the behavior of local governments to issue bonds incentive incompatibility is mainly manifested in two aspects: one is that local government officials are aimed at GDP promotion incentives, the finance rights and expenditure responsibility does not match that local governments rely on land finance and debt for local economic development and the issuance of the lack of market discipline, the central government may help, makes the local government has the motive of excess debt; Second, there is serious information asymmetry. In order to circumvent laws and regulations, local governments often borrow money through various means. There are regional differences in the way debt is raised, the structure of debt is complex and hidden, supervision is difficult, and the amount of debt is difficult to measure. Therefore, the implementation cost of relevant policies by the central government is high and the effect is poor.

In order to solve these two problems, since 2014, local governments have started to reduce the proportion of GDP in official appraisal and implemented an extremely strict accountability system for debt issues, which has reduced the urge of local officials to invest excessively in pursuit of GDP. The 2014 debt management policy clarified the central government's no-bailout

principle and tightened local governments' budgetary constraints by stipulating that only provincial governments and approved cities could issue bonds within the allowable quota. At the same time, it also reduces the difficulty of supervision from the number of regulatory objects. On the problem of information asymmetry, the central government allows local governments to replace old debts with government bonds within the quota, and new debts of local governments can only be in the form of government bonds, so as to make debt transparent and standardized. To a certain extent, the two constraints of incentive compatibility are solved. Therefore, this policy has a relatively obvious effect on the management of debt stock and issuance.

## 5. POLICY IMPLICATIONS

The problem of local government debt is related to the development of the national economy. Existing studies have also shown that non-standard debt issuance will increase the overall risk. This paper finds that standardized debt management combined with dredging can control the stock debt, debt issuance, and debt ratio of local governments. The premise of realizing this function is to give local governments the legal authority, establish a standardized bond issuing system, and persist in cracking down on the behavior of blindly borrowing.

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