ISSN 2616-5902 Vol. 7, Issue 1: 74-82, DOI: 10.25236/AJBM.2025.070110

Local Government Debt Reform and Regional Economic Growth in China

Wenjie Hao[1], Lulin Li[2]

[1]*School of Economics, Fujian Normal University, Fuzhou, China*
[2]*School of Cross-border E-commerce, Yango University, Fuzhou, China*

Abstract: *Has the high-leverage growth model continued after the demographic dividend in China? The ongoing debate at the macroeconomic level focuses on whether local government debt has played a significant role in sustaining high economic growth in China. This study examines the economic effects of local government debt governance reforms, using the 2015 comprehensive "self-issue and self-repayment" policy as a natural experiment. The analysis is based on a sample of 284 prefecture-level cities from 2010 to 2021. The results show that: (1) Both the "open the front door" and "block the back door" measures of local government debt governance have contributed to a reduction in regional economic growth rates. These findings provide some evidence for the notion that high leverage has been associated with high growth in China. (2) Heterogeneity tests, grouped by economic development level and city tier, indicate that the impact of local government debt governance is more pronounced in eastern and western regions, as well as in prefecture-level cities, where economic slowdown is more significant. In contrast, the effects are less pronounced in the central regions, sub-provincial cities, and provincial capitals. (3) Mechanism analysis further suggests that local government debt governance reduces regional economic growth through the "transformational effect" of the "open the front door" policy and the "contraction effect" of the "block the back door" policy. These results contribute to a deeper understanding of the factors behind China's economic growth trajectory.*

Keywords: *Local government debt; GDP growth rate intensity; Spontaneous return; contraction effect*

1. Introduction

Since the global financial crisis in 2008, governments worldwide have employed large fiscal deficits and extensive government bond issuance to alleviate economic recessions and stimulate growth. During this period, public (government) debt has surged, particularly in the affected countries. [1] Drawing from historical experience in responding to financial crises, government investment has proven effective in the short term in addressing rising unemployment, reduced investment, and economic downturns. [2] However, in the long term, especially under the conditions of an aging population, rising social insurance costs, and tightening environmental resources, the question arises: does high public debt ultimately pose a manageable policy challenge? How does it impact regional economic development? From China's experience, local government debt is closely linked to regional economic development, with regional economic growth even exhibiting a dependency on local government debt. [3] For an extended period after the reform and opening-up, policy and demographic dividends were key drivers of China's high economic growth. As the policy dividends gradually diminished and urbanization accelerated, a large portion of the rural labor force transitioned to cities, and the demographic dividend began to wane. [4] In this context, local government debt has increasingly become an important pillar supporting high economic growth. Particularly after 2008, the rapid economic growth in China's regions has largely been in line with the large-scale borrowing by local governments.

The issuance of local government bonds to drive economic growth in China benefits from inherent conditions and unique advantages shaped by the country's administrative, fiscal, and economic systems, as well as the behavior of local government officials. As an important fiscal tool, local government bond issuance has been incorporated into the government's macroeconomic regulation framework, becoming a key instrument for promoting economic growth. [5] By adjusting the scale of bond issuance and interest rates, the government can direct funds toward areas that align with national strategies and local development needs, effectively fostering rapid economic growth. [6] Additionally, the competition among Chinese officials for GDP growth has, to some extent, fueled the issuance of local government bonds. The promotion of local officials is closely tied to the economic development of their respective regions,

ISSN 2616-5902 Vol. 7, Issue 1: 74-82, DOI: 10.25236/AJBM.2025.070110

with local GDP often being a crucial performance indicator. As a result, local governments actively seek to channel more funds into infrastructure construction, industrial development, and public services, aiming to achieve rapid economic growth, improve their performance records, and enhance their chances of career advancement. [7]

Early evaluations of the impact of local government debt on economic growth have led to significant debates, with the conclusions broadly divided into two categories: the first category argues for a linear relationship, supporting both the view that local government debt promotes economic growth and the view that it inhibits it; [3,8] the second category posits a nonlinear relationship between local government debt and economic growth. [9] These studies provide valuable empirical insights into the relationship between local government debt and regional economic growth. The divergence of views can likely be attributed to the fact that researchers have often overlooked an important issue in their study designs: existing literature primarily uses "the amount of local government debt" and "GDP growth rate" as core variables for empirical analysis. However, there is a strong endogenous relationship between local government debt and GDP growth: local governments increase debt to invest in infrastructure and projects, which, in turn, stimulates economic growth and raises regional GDP. Higher levels of regional GDP may also result in more economic activity and tax revenues, making it easier for local governments to finance and repay debt. Theoretically, one can assume that high debt leads to low economic growth, or alternatively, that low economic growth necessitates high debt. Without controlling for other relevant factors, both assumptions could lead to opposing conclusions, resulting in sharply different findings. The introduction of China's "New Budget Law" in 2015 marked the comprehensive reform of the local government debt system. This policy aimed to eliminate the financing authority of local financing platforms, making local governments the sole legitimate channel for government debt. This reform provides a clear external shock to examine the economic effects of local government debt. Based on this, the present study uses a sample of 284 prefecture-level cities from 2010 to 2021 to comprehensively analyze and empirically test the characteristics of regional economic growth under the local government debt governance reform.

The marginal contributions of this paper are as follows: (1) This paper offers a fresh economic perspective on local government debt governance reforms, emphasizing their role in supporting China's broader modernization process. This theoretical lens is crucial for understanding the dynamic relationship between fiscal policy and regional development. (2) The study introduces a novel methodology to evaluate the impact of local government debt reforms, addressing a key limitation in prior research. Unlike conventional static approaches, such as using debt-to-GDP ratios or debt disclosure timing—which often overlook factors like city size or economic development—it analyzes the relative changes before and after the reform and the disparities in governance levels, providing a more nuanced view of the governance transformation. (3) By examining the reform's impact on economic growth, this paper reveals the underlying mechanisms at play. It shows that local government debt governance reform slows regional economic growth through a "transformation effect", by opening up new fiscal channels, and a "contraction effect," by imposing tighter fiscal constraints.

2. Literature Review and Hypothesis Proposal

2.1. Local Government Debt and Economic Growth

Understanding the macroeconomic effects of local government debt requires a clear understanding of its sources and the reasons behind its expansion. Compared to China, the issue of government debt has persisted for a longer duration in developed economies. Many of these countries faced severe economic recessions and high inflation during the late 1970s and early 1980s, prompting governments to resort to borrowing as a key strategy to stimulate economic growth. Over the past four decades, the ratio of government debt to GDP has been consistently rising in developed economies. Yared (2019) argues that the high levels of government debt in developed countries are largely the result of factors such as population aging, increasing political polarization, and heightened electoral uncertainties[10]. Grobéty (2018) focuses on the liquidity effects in the relationship between local government debt and economic growth, suggesting that in countries with high levels of government debt, sectors with greater liquidity demand tend to grow more rapidly[11]. The positive liquidity effect of government debt on industry growth originates from domestic debt rather than external debt. Turning to the causes of local government debt in China, the existing research drawing from the perspective of fiscal federalism, systematically analyze the main causes of local government debt under the framework of fiscal decentralization. They argue that China's local government debt problem is closely related to issues such as the imperfect tax-sharing

ISSN 2616-5902 Vol. 7, Issue 1: 74-82, DOI: 10.25236/AJBM.2025.070110

system, distorted incentives for local officials, irregular local financing platforms, and the needs for macroeconomic regulation and fiscal policy. [5]

The existing literature presents a wide range of views regarding the impact of government debt on economic growth. Keynes and his followers generally believed that government debt could have positive effects on the economy. However, the onset of stagflation in the 1970s led to a shift in academic perspectives. Elmendorf and Mankiw (1999), for instance, argue that continuous government debt can have negative effects on GDP growth, both in the short and long term[12]. In China, there has been considerable research on the relationship between local government debt and economic growth, which can be broadly categorized into five major viewpoints: positive effects, negative effects, nonlinear effects, threshold effects, and conditional effects. Proponents of the positive effects view argue that local government debt contributes positively to economic growth[13]. Conversely, those supporting the negative effects view argue that regardless of whether the debt is considered from a narrow or broad perspective, large-scale debt or high debt ratios have a detrimental impact on long-term economic growth[14]. The nonlinear effect view, often represented by the "inverted U-shape" relationship, suggests that the impact of local government debt on economic growth follows a non-linear pattern. Liu et al. (2022) observed that local government debt has a threshold effect on regional economic growth[15]. The conditional effects perspective, advocated by scholars like Liu et al. (2020), argues that the impact of local government debt on economic growth is contingent upon certain conditions[16]. They found that the effect of local debt on economic growth should be differentiated based on the composition of debt. Only when implicit debt levels are excessively high might they lead to negative effects. These diverse conclusions are likely due to the endogenous relationship between local government debt and economic growth. To address this, the present study will provide new empirical evidence from the perspective of local government debt system reforms.

2.2. Local Government Debt System Reform and Economic Growth

From 2009 to 2014, the Ministry of Finance of China implemented a series of reforms on local government bonds, transitioning from the "guaranteed issuance and repayment," to "guaranteed issuance and self-repayment," and eventually to "self-issuance and self-repayment." This process was aimed at managing local government debt risks in a proactive and cautious manner. The core issue of this reform lies in whether it can effectively regulate the raising and utilization of local government debt funds, reduce direct interference with the credit market, enhance guidance for the real economy, and thus mitigate potential risks while promoting healthy economic development. There are two key measures in the local government debt system reform: "restraining the increase in implicit debt issuance" and "rationally expanding government debt." If the local government debt reform shows a negative relationship with regional economic growth, it would support the view that "high debt supports high growth."

2.2.1 The "Transformation Effect" of the "Opening the Front Door"

The role of local government debt in regional economic growth depends on the scale of available funds and the efficiency of their use. Before the debt governance reform, the main financing channels for local government debt were state-owned enterprises and local financing platforms, making the allocation efficiency and use of borrowed funds difficult to regulate. Under a growth-driven policy, the government would prioritize allocating funds to areas and projects that could rapidly boost GDP in the short term. Although the "opening the front door" reform increased the financing amounts of both general-purpose bonds and special-purpose bonds, thereby expanding the scale of available funds and providing more freedom in exercising economic functions, the special-purpose bonds were mainly allocated to foundational, public, low-profit return areas, such as "Two New and One Heavy," green development, infrastructure construction, and people's livelihood projects, which tend to have greater multiplier effects. In recent years, the issuance of green bonds has notably increased in both number and scale[17]. Therefore, although the "opening the front door" policy in local government debt governance increased the scale of available funds, it restricted their use to low-profit and long-term public sectors. In the short term, the effect on economic growth may be limited. As a result, the "opening the front door" policy may shift the focus from "high growth" to "high quality," reflected in a reduction in economic growth rates. Based on the analysis above, the following hypothesis is proposed:

H1: The "opening the front door" measure in the local government debt governance reform lowers the economic growth rate.

ISSN 2616-5902 Vol. 7, Issue 1: 74-82, DOI: 10.25236/AJBM.2025.070110

2.2.2 The "Contraction Effect" of the "Blocking the Back Door"

The deepening of factor markets and capital market reforms is a crucial part of the current market-oriented reforms in China's socialist market economy. Among these, the "blocking the back door" policy plays a key role in advancing market reforms. For a long time, local governments primarily relied on local financing platforms to issue debt, leading to the accumulation of huge and complex hidden stock debts, which gradually increased the associated debt risks. The positive role of local government debt in enhancing macroeconomic regulation, serving the real economy, and promoting economic development gradually weakened, and its negative effects became more apparent[18]. However, tightening local government debt may directly impact investment levels, market confidence, and overall consumption. The "blocking the back door" policy mainly restricts local financing platforms, which have been key investors and operators for infrastructure projects. Debt governance may limit the government's fiscal leverage, making it difficult to obtain sufficient funds to support such projects. This may lead to a reduction in infrastructure and other development projects, thus diminishing the potential for economic growth. Under the constraints of "blocking the back door," the government may adopt contractionary policies, such as raising taxes or cutting expenditures. This could reduce the disposable income of enterprises and other microeconomic entities, leading to lower consumption expenditure. In the context of overall contractionary policies, cuts in public spending may reduce employment opportunities in the public sector or lead the government to reduce hiring of contractors and outsourced services. This could increase unemployment, reduce income sources, and further suppress consumption expenditure, ultimately affecting overall economic growth. Furthermore, debt governance may trigger investor concerns about the future of the economy, leading to a decline in investor confidence, which may reduce capital inflows and investment activities, thus affecting economic growth.

H2: The "blocking the back door" measure in the local government debt governance reform lowers the economic growth rate.

3. Research Design

3.1. Data Sources

This study uses a sample of 284 prefecture-level cities in China from 2010 to 2021. The data consists of two main components. The first is the local government debt data, which is primarily sourced from the China Local Government Bond Information Disclosure Platform and the Wind Database. This includes the balances of local government debts, urban investment bonds, and other related debt indicators. The second component is economic data at the prefecture level, which includes regional economic, population, and social data. These are primarily derived from the "*China Urban Yearbook*" and the yearbooks of individual prefecture-level cities. Missing data are supplemented using the EPS Data Platform or linear interpolation where necessary. The sample does not include data from Xizang Autonomous Region, Hong Kong, Taiwan and Macao in China. Additionally, cities with significant missing data are also excluded. After a series of screening steps, a balanced panel dataset covering 284 cities over 12 years is finalized.

3.2. Identification of Local Government Debt Governance Reform Policies

The "self-issuance and self-repayment" reform introduced in 2015 was a policy designed by the central government and fully implemented by local governments. Unlike pilot programs with distinct control and experimental groups, this reform was implemented uniformly across the country. Therefore, this study follows the methodology of Nuun and Qian (2011) for evaluating non-pilot policies, using the "intensity of policy shock" as the identifying policy[19].

Local government debt governance is a dynamic process. To capture this, the treatment variable (*Treat*) is measured by the relative changes before and after the policy was implemented. For example, in the case of the "blocking the back door" policy, which targets the governance of local governments' "implicit debt," the procedure is as follows: First, the average debt ratio (*Debt scale/GDP*) of local financing platforms in each city for the period 2016-2021 is calculated and then compared with the debt ratio for the period 2010-2015. The difference, denoted as *Msi*, represents the level of implicit debt governance in each city. Then, the median value of *Msi* is calculated to assess the overall state of implicit debt governance. Cities where *Msi* exceeds the median (*Msi* > *MMsi*) are classified as the treatment group, while others form the control group. A similar approach is applied to the "opening the front door" policy. The policy shock variable (*time*) is represented by a time dummy. The value of 1 is assigned for years

ISSN 2616-5902 Vol. 7, Issue 1: 74-82, DOI: 10.25236/AJBM.2025.070110

2015 and after, while 0 is assigned for earlier years. For clarity, the "opening the front door" policy is referred to as "*open*" and the "blocking the back door" policy as "*block"*.

3.3. Model Specification and Variable Definitions

To test the research hypotheses, the econometric models used in this study are specified as follows:

$$GDP\_E_{it}=\alpha_0+\alpha_1 Open+\beta Controls_{it}+\vartheta_t+\gamma_i+Indtrend_p+\varepsilon_{it} \quad (1)$$

$$GDP\_E_{it}=\alpha_0+\alpha_2 Block+\beta Controls_{it}+\vartheta_t+\gamma_i+Indtrend_p+\varepsilon_{it} \quad (2)$$

The GDP_E_{it} is GDP growth rate change for city *i* in year *t*. The key independent variables are the "open" variable, which refers to the "opening the front door" policy, and the "block" variable, which refers to the "blocking the back door" policy. A series of control variables are included to account for other factors that may influence the dependent variable. Additionally, time fixed effects (ϑ_t) and region-specific dummy variables (ϑ_t) are incorporated into the model to control for time and regional heterogeneity, respectively. The random error term is denoted as ε_{it} .The coefficients of interest, α_1 and α_2, reflect the impact of local government debt governance on the change in GDP growth rate. These coefficients will provide insight into the relationship between the debt governance reforms and regional economic growth. The remaining control variables and measurement methods are shown in Table 1.

Table 1: Variable Definitions

Variable	Symbol	Measurement and Coding, Calculation
GDP Growth Rate Change	GDP_E	(GDP growth rate of the previous year - GDP growth rate of the current year) / GDP growth rate of the previous year
Opening the front door	Open	Relative indicator of explicit debt issuance scale
Blocking the back door	Block	Relative indicator of implicit debt governance scale
Per Capita GDP	GDP	Natural logarithm of per capita GDP
Industrial Structure	GDP2	The ratio of GDP from the secondary to the tertiary industry
Household Savings	Savings	Household savings rate
Fiscal Expenditure	Wage	Natural logarithm of fiscal expenditure
Average Income	Income	Natural logarithm of the average urban and rural income
Labor Force	Labour	Size of the labor force
Capital Stock	Capital	Capital stock calculated using the perpetual inventory method

4. Regression Results

4.1. Baseline Regression Results

Table 2: Benchmark Regression Results

Variables	(1)	(2)	(3)	(4)
	GDP_E	GDP_E	GDP_E	GDP_E
Open	-0.0027*** (0.0002)	-0.0007*** (0.0002)		
Block			-0.0019*** (0.0002)	-0.0010*** (0.0002)
Controls	YES	YES	YES	YES
city	YES	YES	YES	YES
year	YES	YES	YES	YES
R2	0.4705	0.5000	0.4705	0.4966
N	3408	3408	3408	3408

The impact of local government debt governance on GDP growth rate changes. In columns (1) and (3) of Table 2, the "open door" and "back door" policies are used as the core explanatory variables, with a two-way fixed effects model applied for estimation. The results show a significant negative correlation between both the "open door" and "back door" policies and the changes in regional GDP growth rate. In columns (2) and (4), after further controlling for city-level characteristics, the significance levels of the

ISSN 2616-5902 Vol. 7, Issue 1: 74-82, DOI: 10.25236/AJBM.2025.070110

regression coefficients for "Open" and "Block" remain unchanged. These results suggest that local government debt governance, through both "open door" and "back door" channels, has contributed to a reduction in economic growth rate, providing significant evidence for the idea that high leverage drives high growth.

4.2. Parallel Trend Assumption Test Results

This study employs the difference-in-differences (DID) method to examine whether local government debt reform is the primary cause of the slowdown in economic growth. The effectiveness of the policy requires the parallel trend assumption, which posits that, prior to the implementation of the pilot policy, the economic growth rate changes in the pilot and non-pilot regions should follow the same trend. To test this assumption, the study uses a pre-treatment trend test method. If the coefficient before the implementation of the pilot policy is not significantly different from zero, it indicates that the parallel trend assumption holds.

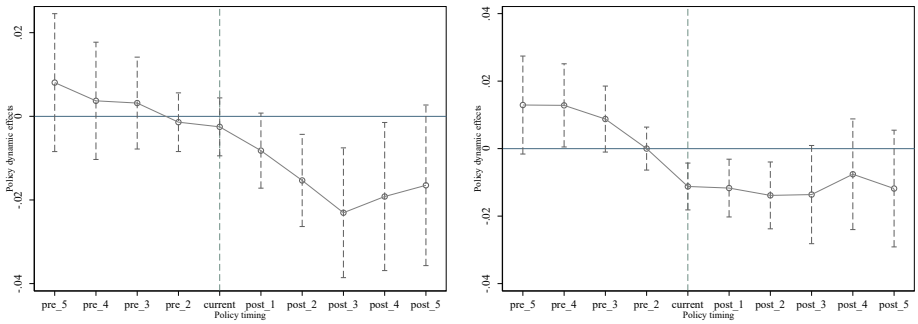

Figure 1: Parallel Trend Assumption Test Results

As shown in Figure 1, the event study method compares the changes in GDP growth rate before and after the implementation of the "open-door" policy and the "block-door" policy, with five periods before and after each policy event. The research results indicate that, prior to the implementation of these two policies, there was no significant difference in the GDP growth rate changes, which is consistent with the parallel trend assumption. After the local government debt reform measures were implemented, the "open-door" policy, allowing local governments to issue bonds independently, had a significant negative effect on the GDP growth rate, particularly in the first year following the policy's implementation, where a noticeable decline in the GDP growth rate was observed. Similarly, the "block-door" policy also led to a marked reduction in the GDP growth rate after its implementation. These results all pass the parallel trend assumption test.

4.3. Robustness Check

(1) Placebo Test. On January 1, 2015, the new Budget Law ("New Budget Law") was officially implemented, marking a shift in local government debt management from the previous "issuance and repayment on behalf" model to the "self-issuance and self-repayment" model. To test whether this policy change was the true cause of the observed effects, we moved the policy implementation date two years earlier. Column (1) of Table 3 reports a coefficient of -0.0025, but it does not pass the 10% significance level test. Since no similar effect was observed at this assumed time point before the actual policy implementation, this finding suggests that the observed policy effects were indeed directly caused by the implementation of the new Budget Law.

(2) PSM-DID. Table 3 also reports the results of the propensity score matching (PSM) using the Logit model to estimate the scores and ensure the similarity between the treatment group and the control group in terms of relevant covariates. In the 1:1 matching (Column 2), the difference-in-differences (DID) estimation after propensity score matching yields a coefficient of -0.0021, which is statistically significant at the 1% level.

(3) Exclusion of Municipality Samples. Given that China's municipalities, as provincial-level administrative units, significantly differ from other prefecture-level cities in terms of economic development, scale, and investment competitiveness, they may not represent the general situation. Therefore, when assessing the effects of local government debt reform policies, we excluded the municipality samples. As shown in Column (3) of Table 3, the negative effect of the policy remains

ISSN 2616-5902 Vol. 7, Issue 1: 74-82, DOI: 10.25236/AJBM.2025.070110

significant at the 1% statistical level, with the DID estimated coefficient being -0.2611. This result is consistent with the baseline model, further confirming the general applicability of the policy effects.

(4) Exclusion of Concurrent Policy Effects. This paper also examines the "Broadband China Cities" policy, which was launched in 2013. The policy aimed to improve network infrastructure, promote the optimization and upgrading of economic structure, and facilitate the development of digital infrastructure. The implementation of the "Broadband China Cities" policy enhanced urban digitalization and informatization, promoted the growth of industries such as the Internet and e-commerce, improved urban competitiveness and attractiveness, and stimulated innovation and technological development. This, in turn, contributed positively to economic growth. After excluding the influence of the "Broadband China Cities" policy (Column 4), the estimated coefficient of the policy is -0.0025, which remains statistically significant at the 1% level. The results confirm that the decline in regional economic growth after the local government debt reform is robust.

Table 3: Robustness Test

Variables	(1)	(2)	(3)	(4)
	F.DID	PSM1:1	Municipalities	Concurrent Policy
DID	-0.0025 (0.1570)	-0.0021*** (0.0443)	-0.0026*** (0.0894)	-0.0025*** (0.0883)
Control	YES	YES	YES	YES
City	YES	YES	YES	YES
Year	YES	YES	YES	YES
R2	0.3664	0.5015	0.4960	0.4993
N	3408	3382	3360	3408

5. Mechanism and Heterogeneity Tests

5.1. Mechanism Test

5.1.1 Transformational Effects of the "Open the Front Gate" Policy

(1) Substituting "Speed" with "Quality". Innovation can bring new technologies, products, and services, thus improving productivity and efficiency. Through innovation, enterprises can use resources more effectively, reduce costs, and improve the quality of output, thereby achieving sustainable economic growth. Column (1) of Table 4 shows that the coefficient for Open is 0.0043, which passes the significance test at the 1% level. This indicates that the "Open the Front Gate" policy has enhanced scientific expenditure (SE). (2) New Industries and New Technology Incentives. By supporting new infrastructure projects, the policy has promoted the transformation of the economic structure and industrial upgrading. The "Open the Front Gate" policy is significantly positively correlated with digital infrastructure investment (DI), with a coefficient of 0.0098, which is statistically significant at the 1% level. This shows that the "Open the Front Gate" policy has improved the level of new infrastructure. These results prove that the "Open the Front Gate" policy can promote regional economic innovation and the development of new industries, demonstrating its transformational effects.

5.1.2 Tightening Effects of the "Block the Back Door" Policy

Table 4: Mechanism Test

Variables	(1)	(2)	(3)	(4)
	SE	DI	RSG	EG
Open	0.0043*** (0.0008)	0.0098*** (0.0007)		
Block			-0.1432*** (0.0270)	-0.0796*** (0.0259)
Control	YES	YES	YES	YES
City	YES	YES	YES	YES
Year	YES	YES	YES	YES
R^2	0.1231	0.4949	0.8239	0.8355
N	3408	3124	3408	3408

To demonstrate the economic tightening effects, this study uses two indicators: the growth rate of consumption and the growth rate of employment. Column (3) of Table 4 shows that the estimated

ISSN 2616-5902 Vol. 7, Issue 1: 74-82, DOI: 10.25236/AJBM.2025.070110

coefficient for the impact of the local government debt “Block the Back Door” policy on retail sales growth (RSG) is -0.1432, which is significant at the 1% level. This indicates that the debt governance policy's “block the back door” effect has reduced consumption levels. Column (4) results show that the coefficient for Block is -0.0796, which also passes the 1% significance level test, indicating that the “Block the Back Door” policy significantly reduced employment growth(EG). In summary, the “Block the Back Door” policy has brought about an overall economic tightening effect.

5.2. Heterogeneity Tests

5.2.1 Heterogeneity by Geographical Location

The differences in environmental policies and economic development strategies across regions are crucial for understanding and assessing the overall effects of local government debt reforms. In particular, the differences in policy effects between the eastern (EA) and western (WE) regions highlight the importance of regional economic development levels and government policy choices. As a developed economic region, the eastern part of China has stronger economic and innovation advantages, allowing local governments to access higher levels of credit support. The estimation results in Table 5 indicate a significant negative correlation between local government debt reform policies and GDP growth rate in the eastern region, with a DID estimation coefficient of -0.0021, significant at the 5% statistical level. In contrast, in the western region (Column 3), although the economy is less developed, local governments attract businesses through measures such as providing cheap land and relaxing environmental regulations. The DID estimated coefficient for the western region is significant at the 5% level, reflecting the significant impact of the policy there as well. In the central region (Column 2), the regression coefficient does not reach statistical significance, suggesting that these areas may still rely on traditional economic models.

5.2.2 Heterogeneity by Administrative Level

When evaluating the economic effects of local government debt reform policies, considering the developmental differences between cities is essential for understanding the comprehensive impact of policies. Especially in ordinary prefecture-level cities, where resources are more limited, local government debt policies may serve as a key means to drive economic growth. Column (6) of table5 confirms this idea. Compared with sub-provincial cities (SP) and provincial capital cities (PC), ordinary prefecture-level cities (OPL) show a more significant effect of local government debt reform policies, with a DID estimated coefficient of -0.2605, significant at the 5% statistical level. This result may reflect the unique characteristics of ordinary prefecture-level cities in terms of resource allocation and development strategies. Compared to cities with higher administrative levels, ordinary prefecture-level cities may be more inclined to use local government debt policies to drive local economic development.

Table 5: Heterogeneity Test

Variables	(1)	(2)	(3)	(4)	(5)	(6)
	EA	CE	WE	SP	PC	OPL
DID	-0.0021**	0.0584	-0.0041**	-0.1646	-0.2155	-0.2605**
	(0.0994)	(0.1297)	(0.1959)	(0.1897)	(0.1794)	(0.1011)
Control	YES	YES	YES	YES	YES	YES
City	YES	YES	YES	YES	YES	YES
Year	YES	YES	YES	YES	YES	YES
R^2	0.5741	0.5442	0.5853	0.5004	0.6362	0.5171
N	1032	1392	984	228	312	2988

6. Main Conclusions

This paper uses the comprehensive "self-issued and self-repaid" local bond reform policy introduced in 2015 as a natural experiment, selecting 284 prefecture-level cities from 2010 to 2021 as samples to empirically examine the economic effects of local government debt governance system reforms. The main conclusions are as follows:

First, the baseline regression results show that both the "open-door" and "block-door" policies in local government debt governance significantly reduce the GDP growth rate at the regional level. This result remains significant after a series of robustness tests, including pre-policy parallel trend tests, PSM-DID tests, placebo tests, and controlling for other concurrent policy effects.

ISSN 2616-5902 Vol. 7, Issue 1: 74-82, DOI: 10.25236/AJBM.2025.070110

Second, the mechanism analysis confirms that local government debt governance reduces the intensity of regional GDP growth through the "transformational effect" of the "open-door" policy and the "contraction effect" of the "block-door" policy. Specifically, in terms of the "transformational effect," local government debt governance reforms increased local innovation expenditures and infrastructure investment, promoting economic structural transformation and industrial upgrading. Meanwhile, the "contraction effect" of the "block-door" policy reduced retail sales growth and employment growth, thereby suppressing overall economic growth.

Finally, heterogeneity tests were conducted from both regional and governmental governance perspectives. At the regional level, by grouping cities based on economic development levels and administrative tiers, it was found that local government debt governance had a significant economic effect in eastern and western regions, as well as in prefecture-level cities. However, the impact was not significant in central regions, sub-provincial cities, and provincial capitals. This suggests that the economic effects of local government debt governance policies vary across different regions and levels of cities.

References

[1] Greenwood, R., Hanson, S. G., & Stein, J. C. (2015). A comparative-advantage approach to government debt maturity. The Journal of Finance, 70(4), 1683-1722.
[2] Reinhart, C. M., & Rogoff, K. S. (2010). Growth in a Time of Debt. American economic review, 100(2), 573-578.
[3] Chen, S., & Li, W. (2019). Local government debt and regional economic growth in China. China Political Economy, 2(2), 330-353.
[4] Fang, C., & Yang, L. (2013). 4 The End of China's Demographic Dividend. China: A new model for growth and development, 55(1).
[5] Geng, X., & Qian, M. (2024). Understanding the local government debt in China. Pacific-Basin Finance Journal, 86, 102456.
[6] Qu, X., Xu, Z., Yu, J., & Zhu, J. (2023). Understanding local government debt in China: A regional competition perspective. Regional Science and Urban Economics, 98, 103859.
[7] Zhang, M., Chen, W., Kou, A., & Wu, Y. (2023). Promotion incentives, tenure uncertainty, and local government debt risk. Finance Research Letters, 56, 104136.
[8] Zhu, X., Lin, S., Wang, L., Wu, W., Qin, Q., Zhu, X., ... & Qin, Q. (2018). Debt and economic growth. A Study of the Turning Point of China's Debt, 1-13.
[9] Zhao, R., Tian, Y., Lei, A., Boadu, F., & Ren, Z. (2019). The effect of local government debt on regional economic growth in China: A nonlinear relationship approach. Sustainability, 11(11), 3065.
[10] Yared, P. (2019). Rising government debt: Causes and solutions for a decades-old trend. Journal of Economic Perspectives, 33(2), 115-140.
[11] Grobéty, M. (2018). Government debt and growth: The role of liquidity. Journal of International Money and Finance, 83, 1-22.
[12] Elmendorf, D. W., & Mankiw, N. G. (1999). Government debt. Handbook of macroeconomics, 1, 1615-1669.
[13] Lin, Y., Wen, Y., & Gu, Y. (2023). Local government debt and economic growth: An analysis based on local investment platform debt. Fiscal Research, (02), 3-15.
[14] Diao, W. (2017). Debt ratio, debt repayment pressure, and the economic growth effect of local government debt. Quantitative Economics and Technical Economics Research, (03).
[15] Liu, N., Zeng, Y., & Liu, J. (2022). The growth of local government debt: Effects and transmission. Financial Science, (09), 123-137.
[16] Liu, Z., Ren, J., & Chen, X. (2020). The impact of local government debt on economic growth: A dual perspective on debt scale and debt structure. Reform, (04), 100-115.
[17] Li, A., & Qiu, J. (2024). Does local government debt promote firm green innovation? Evidence from the Chinese local government debt governance reform. Economic Analysis and Policy, 84, 1046-1062.
[18] Ying, W., & Wenjie, P. (2019). Local government debt, financing platform and fiscal risk. International Business Research, 12(3), 40-49.
[19] Nunn, N., & Qian, N. (2011). The potato's contribution to population and urbanization: evidence from a historical experiment. The quarterly journal of economics, 126(2), 593-650.