Microeconomic Analysis of the Relationship between FDI Orientation and Local Government Performance

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Abstract: According to economic theory, efficient market and capable government are the principles to follow when formulating economic policies. Foreign direct investment (FDI) is an important factor affecting the efficiency of local governments. Using China's provincial panel data, this paper analyzes the impact of FDI with different motives on the performance of active local governments from a microeconomic perspective. The results show that market-oriented FDI has a promoting effect on the improvement of the efficiency of local governments, while resource-oriented FDI has a negative but not significant impact on the efficiency of local governments.

1. Introduction

During the rapid development of China's economy in the decades of reform and opening up, foreign direct investment (FDI) is an important force driving economic growth [1]. FDI not only brings a large amount of capital, advanced technology and management experience to China, but also has a profound impact on the economic and social aspects through channels such as competition effect, demonstration effect and cooperation effect. Foreign-funded enterprises, accounting for 2% of the market entities, drive about 40 million people's employment, accounting for 1/10 of the urban employed population in the country, and contribute 1/6 of China's tax revenue and 2/5 of imports and exports [2]. In 2022, China's actual use of foreign capital exceeded 1.2 trillion yuan for the first time, a year-on-year increase of 6.3%. The scale of attracting investment still remains at the forefront of the world [3]. The report of the 20th National Party Congress pointed out: "Reasonably reduce the negative list for foreign investment access, protect the rights and interests of foreign investors in accordance with the law, and create a first-class business environment that is market-oriented, law-based and internationalized." On December 15 of the same year, General Secretary clearly proposed at the Central Economic Work Conference: "We should attract and utilize foreign capital with greater efforts."

At the same time, under the new situation, the Central Committee of the Communist Party of China and the State Council put forward the working principles of an effective market and a proactive government in the "Opinions on Accelerating the Construction of a Unified National Market." How to improve the actions and efficiency of local governments? Under such a huge scale of FDI and a strong investment attraction environment, what kind of impact will FDI have on government

efficiency? In recent years, research on the impact of FDI on the efficiency of host Country governments has increased accordingly.

Many studies have found that the entry of foreign capital will not only lead to changes in the property rights system of the host country [4] and promote institutional changes in the host country [5], but also have a promoting effect on the governance capacity of the host country government [6] and the efficiency of local governments [7]. However, some scholars pointed out that foreign capital may use bribery means to enter protected areas, thereby exacerbating the degree of corruption in the host country [8] and having a negative impact on the efficiency of the host country government [9]. Since the reform and opening up, China has made great efforts in continuously attracting foreign capital, and foreign capital is also regarded as an important factor affecting the efficiency of local governments in China. Although some scholars have empirically analyzed the impact of FDI on the efficiency of local governments in China, they have relatively ignored the heterogeneity of FDI. Based on this, from the perspective of foreign capital entry motivation, this paper empirically analyzes the impact of FDI with different entry motivations on the efficiency of local governments in China by using the fixed effects model.

The marginal contributions of this paper may include: First, in terms of research perspective, domestic scholars have studied the impact of FDI on the efficiency of local governments in China from different levels, but no consistent conclusion has been reached. Moreover, the existing literature has relatively ignored the entry motivation of FDI. This paper examines the impact of FDI with different motivations on the efficiency of local governments in China from the perspective of foreign capital entry motivation, which is beneficial to supplement the research literature in this field. Second, in terms of research methods, this paper will construct a two-way fixed effects model to explain the differentiated impact of FDI with different motivations on the efficiency of local governments in China. Third, in terms of research conclusions, the empirical research in this paper shows that the impact of FDI on the efficiency of local governments in China is heterogeneous, which will provide a new explanation for understanding the impact of FDI on the efficiency of local governments.

2. Literature Review and Research Hypotheses

2.1. Literature Review

Early research literature on the impact of foreign capital entry on host country governments mainly focused on the field of institutional change, believing that foreign capital entry promoted property rights protection and institutional change [10]. With the continuous expansion of foreign capital entry fields and the attention paid by host country governments to property rights and contract systems, more attention has been given to the non-economic effects of foreign capital entry on host countries. Many researchers have found that the host country government is not strictly exogenous to foreign investors, but a relationship of mutual competition and cooperation, manifested as multi-field games and bargaining behaviors [11]. From the existing literature, although domestic scholars generally believe that FDI is an important channel for globalization to affect local governments in China, there are two arguments of "promotion theory" and "inhibition theory" so far, and no consistent conclusion has been reached.

On the one hand, Dong Youde and Wang Zifeng [12] believe that the business operations of multinational companies in China show higher efficiency and regularity, and have had a positive impact on the behavior, concepts, organizational institutions, and functional changes of the Chinese government. Fu Jiarong and Luo Haishi [13] studied and showed that local governments in China can also benefit from interactions with multinational companies and gradually change traditional governance concepts and methods. Liu Chang [7] constructed a three-agent model to explain how multinational companies promote the efficiency change of local governments in China, and believes

that multinational companies have had a positive impact on China's government governance through actively striving for foreign investment preferential policies, investment location selection, and localization strategies. Ma Bianjing and Xie Zuoshi [14] based on the sample data of 120 cities in China, empirically analyzed and found that the inflow of FDI helps improve the quality of local governments measured in multiple dimensions. But on the other hand, Chen Shiyi and Zhang Jun [15] found that the impact of FDI on the expenditure efficiency of local governments is negative but not significant. The research of Zhou Li'an and Tao Jing [16] shows that the increase in the proportion of FDI will increase the corruption level of regional officials. The reason is that foreign investors rely to a large extent on the investment policies and administrative approvals of local governments. Yang Yanhong and Lu Xianxiang [17] empirically found using the spatial lag model that FDI significantly promotes the expansion of the scale of local governments in China. Qi Yu and Guo Junjun [9] used provincial panel data to study and found that FDI has had a negative impact on the efficiency of local governments in China, and they believe that this may be because local governments did not absorb its beneficial technical means and management experience well in the process of contacting with foreign investors.

In summary, many scholars have explained the relationship between FDI and the size, management model, and government efficiency of local governments in China from both theoretical and empirical levels. However, there is no consistent conclusion on whether FDI has promoted the efficiency of local governments in China. One possible reason is that the existing literature has relatively ignored the heterogeneity of FDI. From the existing literature, FDI with different motivations not only has different impacts on the economic and social development of the host country [18], but also has many difference in the evaluation of the investment environment of the host country [19]. This shows that FDI with different motivations may have different impacts on the efficiency of local governments. But unfortunately, there is currently a lack of discussion on the impact of FDI with different motivations on the efficiency of local governments in China

2.2. Research Hypotheses

With the application of game theory and information economics in the public sector, the impact of FDI on host country governments is also explained as the result of bargaining and bargaining between foreign investors and host country governments [11]. The result of the negotiation between foreign investors and host country governments depends not only on the bargaining power of both parties, but also on the negotiation motives of both parties [20]. Many studies have also found that FDI with different motivations not only has different impacts on the economic and social development of the host country [18], but also has many differences in the evaluation of the investment environment of the host country [19]. This means that FDI with different motivations may have different impact paths on host country governments. Considering that most domestic scholars mainly divide foreign direct investment in China into resource-oriented FDI and market-oriented FDI [21], this paper focuses on the impact of resource-oriented FDI and market-oriented FDI on the efficiency of local governments in China.

First, at the level of resource-oriented FDI. Since resource-oriented FDI is mainly to obtain the abundant and cheap natural resources and labor force of the host country. In addition, the division of labor links and division of labor status in the global value chain are not high, and the advanced technology and management system carried are also relatively limited. Resource-oriented FDI often has relatively low requirements for the institutional environment of the host country [22]. Market-oriented FDI mainly sells its products to the host country market. It not only pays attention to the market potential of the host country, but also has certain demands for economic and political stability, a supply of skilled labor, an efficient government management system, and trade liberalization

policies. Since market-oriented FDI has a higher division of labor link and status in the global value chain, the host country government will also pay attention to the reasonable demands of market-oriented FDI and gradually change the traditional governance concepts and governance methods. This is conducive to the host country government learning advanced technology and management experience in the process of interaction and negotiation with it and improving government efficiency. Based on this, this paper puts forward Hypothesis 1:

H_1: Market-oriented FDI has a promoting effect on the efficiency of local governments, while resource-oriented FDI has a negative impact.

3. Research Design: Model, Variables and Data

3.1. Model Construction

This paper constructs the basic regression by referring to the empirical model of the impact of FDI on local government efficiency by Qi Yu and Guo Junjun [10]. Considering that there may be a nonlinear relationship between FDI and local government efficiency.

$$Gst_{it} = j_1 + \alpha_1 fdi_{it} + \beta_1 X_{it} + e_i + h_t + w_{it} \tag{1}$$

In the formula, Gst_{it} is the efficiency of government, α is the estimated coefficient of the core explanatory variable; β is the estimated coefficient of the control variable; j is the constant term; ip is the threshold variable; e_i, h_t and w_{it} represent individual fixed effects, time fixed effects and random disturbance terms respectively.

3.2. Variable Selection

3.2.1. Explained variable

The explained variable is local government efficiency (Gov). It is calculated and obtained by adopting the research idea of Wang Juan et al. [23] Wang Juan, Zhang Xiang, Li Yan. Research on the Impact of Foreign Direct Investment on the Efficiency of Chinese Local Governments [J]. Oriental Forum, 2024, (01): 141-156.

3.2.2. Core explanatory variable

The core explanatory variables are market-oriented FDI (mfdi) and resource-seeking FDI (rfdi). According to the classification method of foreign investment motives in China by Cheng Yao and Yu Jinping [24], foreign investment or utilization of foreign capital in agriculture, mining and manufacturing sectors is classified as resource-oriented FDI, and foreign investment or utilization of foreign capital in construction, production and supply of electricity, gas and water, and the tertiary industry is classified as market-oriented FDI.

3.2.3. Control variables

The control variables selected in this paper are as follows: local government fiscal revenue (fir), which is represented by the proportion of local government fiscal revenue in GDP; natural population growth rate (grop), which is represented by the difference between birth rate and death rate; industrial structure upgrading (stru), which is represented by the proportion of added value of the tertiary industry to the added value of the secondary industry; information development level (infor), which is represented by the total per capita postal and telecommunications business volume; public official salary (wage), which is represented by the ratio of the average wage of employees in public

administration, social security and social organizations to per capita GDP; foreign trade development (trade), which is represented by the annual growth rate of the total import and export volume of domestic sources and destinations.

3.3. Data Description

Based on data availability, this paper selects panel data of 23 provincial-level regions in China as the research sample. The data mainly come from China Statistical Yearbook, Chinese Labor Statistical Yearbook, Chinese Fixed Assets Investment Statistical Yearbook, Chinese Cultural Relics and Tourism Statistical Yearbook, Chinese Fiscal Yearbook, Chinese Health Statistics Yearbook, EPS data platform and provincial statistical yearbooks.

4. Empirical Results and Analysis

Table 1 reports the regression results of multiple types of two-way fixed effect models. In models 1 and 3 without considering adding control variables, the estimated coefficient of market-oriented FDI is significantly positive at the 1% confidence level, while the estimated coefficient of resource-oriented FDI is negative and not significant. After adding control variables, the significance and sign of the estimated coefficients of market-oriented FDI and resource-oriented FDI remain unchanged, indicating that market-oriented FDI has a significant promoting effect on the efficiency of local government, and resource-oriented FDI has a negative effect on local government efficiency but is not established, confirming Hypothesis 1. From the perspective of model fitting effect, after considering control variables, the estimated coefficients of market-oriented FDI and resource-oriented FDI both decrease, and at the same time, the goodness of fit also increases, indicating that models 2 and model 4 have strong explanatory power. Market-oriented FDI has obvious advantages in technological endowment and management system. Its advanced technological knowledge and management methods are more likely to have spillover effects on local government management technology and management methods. However, resource-oriented FDI does not have a high position in the division of labor link in the global value chain and is often not easy to have a substantial impact on the efficiency of the host country's government.

Table 1: Benchmark regression results.

Variables Model	Model (1)	Model (2)	Model (3)	Model (4)
mfdi	0.010*** (0.003)	0.008*** (0.003)		
rfdi			-0.004 (0.004)	-0.001 (0.003)
Control variables	No	Yes	No	Yes
Regional fixed	Yes	Yes	Yes	Yes
Year fixed	Yes	Yes	Yes	Yes
N	368	368	368	368
R^2	0.792	0.813	0.786	0.809

Note: ***, ** and * respectively indicate significance at the 1%, 5%, and 10% confidence levels. The numbers in parentheses are standard errors. The same below.

5. Robustness test

Table 2 reports the regression results of robustness test.

First, we need to replace the explained variable. The level of government efficiency often determines the level of government governance capacity. Therefore, this paper uses local government governance capacity to replace local government efficiency for re-estimation. For government governance capacity, the research results of Liu Fengqi et al. [25] are referenced. The entropy method is used to calculate the indicators of five dimensions: government performance, level of rule of law, quality of supervision, economic development, and people's livelihood guarantee. According to the regression results of Model 5 and Model 6, the estimated coefficient of market-oriented FDI is significantly positive at the 1% confidence level, while the estimated coefficient of resource-oriented FDI is negative and not significant, indicating that the estimation results are robust.

Table 2: Robustness test

Variable	Replacing the explained variable		Instrumental variable method and lagging one period		Removing extreme values	
	Model (5)	Model (6)	Model (7)	Model (8)	Model(9)	Model(10)
Market-oriented FDI	0.002*** (0.001)		0.009*** (0.003)		0.010*** (0.003)	
Resource-oriented FDI		-0.001 (0.001)		-0.001 (0.003)		-0.002 (0.004)
Control variable	Yes	Yes	Yes	Yes	Yes	Yes
Regional fixed	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed	Yes	Yes	Yes	Yes	Yes	Yes
Kleibergen-Paap rk LM statistic			34.508***			
Kleibergen-Paap rk Wald F			24.569 (16.38)			
N	368	368	345	345	368	368
R^2	0.935	0.931	0.095	0.842	0.814	0.809

Second, instrumental variable method and lagging one period. Considering that there may be a two-way causal relationship between government efficiency and market-oriented FDI, that is, regions with high government efficiency will also attract more market-oriented FDI inflows. This paper considers introducing the lagged one period of the explanatory variable as an instrumental variable for two-stage least squares estimation. Model 7 reports the regression results of the second stage. It can be seen that the estimated coefficient of market-oriented FDI is significantly positive, indicating that the previous estimation results are robust. In addition, the test results of Kleibergen-Paap rk LM statistic and Kleibergen-Paap rk Wald F (greater than 16.38) also indicate that there is no problem of non-identification and weak instrumental variables, indicating that the instrumental variable is effective. Finally, using the lagged one period of resource-oriented FDI for regression. The regression results of Model 8 show that the significance and sign of the estimated coefficient of resource-oriented FDI have not changed, which is basically consistent with the previous estimation results.

Third, remove extreme values. Considering that extreme values may lead to spurious regression in model fitting, this paper performs tail reduction processing at the 1% level for all variables except the explained variable. The regression results of Model 9 and Model 10 show that after considering extreme values, market-oriented FDI still has a promoting effect on the efficiency of local governments in China, while resource-oriented FDI is still negative but not significant, once again proving that the estimation results are robust.

6. Conclusions and micro policy recommendations

6.1. Research conclusions

Since the reform and opening up, China has made great efforts in the field of investment attraction, which has triggered many scholars' discussion on the effect of FDI on the efficiency of local government in China. Although scholars have studied the impact of FDI on local government efficiency in China, no consensus has been reached so far, and there is a lack of empirical research on the impact of FDI with different motivations on local government efficiency in China. This paper finds that: market-oriented FDI significantly improves local government performance, while resource-oriented FDI has a negative impact on local government performance, this conclusion is still valid in a series of robustness tests.

6.2. Microeconomic policy recommendations

This paper gives the suggestions as follows: implement differentiated investment attraction policies. First, we need to increase the encouragement and support for market-oriented foreign-funded enterprises, and attract foreign-funded enterprises to settle down and take root relying on the super-large market advantages and the international and domestic dual circulation policy. We need to strengthen the reform of "decentralization, regulation and service" in the field of international investment, optimize the negative list management of market-oriented foreign-funded enterprises' access, and actively promote the increase in capital and improvement in quality of existing foreign-funded enterprises. We need to give full play to the technological, talent and management advantages of market-oriented foreign-funded enterprises, and promote the digestion and absorption of their advanced technologies and management experience by government departments. Second, we need to increase the approval intensity and supervision level of resource-oriented foreign-funded enterprises, appropriately raise their technical access thresholds and cooperation standards, and prohibit resource-intensive foreign-funded enterprises with high energy consumption, high pollution and low efficiency in accordance with regulations. We need to effectively promote the deep integration and organic unity of investment attraction quality and government efficiency.

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