

The Regional Determinants of Foreign Direct Investment in Henan Province, China

褚 净茹

With the acceleration of economic globalization, the impact of foreign direct investment (FDI) on the economies of various countries has gradually increased. Since the reform and opening up, China has been implementing the policy of actively introducing foreign capital. Especially after China's accession to the World Trade Organization, FDI has become an essential factor affecting China's economic development. As a significant economic and agricultural province in central China, the central government first proposed a policy to promote the rise of the central region in 2003. The lack of FDI has become an important factor restricting the rapid economic development of Henan Province. In order to increase the level of attracting FDI in Henan Province, Henan Province passionately developed an open economy and increased its support for foreign trade policies. The effectiveness of investment promotion has been significantly improved. The continuous improvement of the level of FDI has further promoted the rapid economic development of Henan Province. From the relevant statistical data, the actual use of FDI in Henan Province has undergone significant changes in recent years. Then, what are the reasons for the rapid increase in the level of FDI in Henan Province, and what factors can affect Henan Province to attract FDI inflow? In order to solve these problems, this thesis selects 18 prefecture-level cities in Henan Province as the research objects for in-depth study so as to clarify the real regional factors affecting the foreign capital inflow in Henan.

There are many kinds of literature and theory on FDI. Although it is an important topic, compared with the researches of a large number of FDI about countries such as Europe, the United States, and Japan, not only is China's FDI research generally backward, let alone the provinces in the central region. With the increase in FDI inflow in China, scholars began to explore the determinants of attracting foreign capital in different regions of China. Most surveys are concentrated in coastal areas or major parts of China. Moreover, the theories that universally applies reasonably interprets, and predicts investment behavior in countries all over the world have not yet been formed. FDI inflow will still be subject to local conditions, specific scope, and specific periods constraints. Especially in China, the region is vast, with a large population and diverse regional endowments. If the existing theoretical analysis framework is still directly applied, then it is not appropriate and may not be very suitable.

So far, there are no systematically studies or research in Henan Province about attracting foreign capital. Henan Province is an important economic and agricultural province in central China, but the scale of attracting FDI inflow is relatively small compared with coastal areas. Henan has a developed agricultural base, a large population, and a low wage level. Also, it is

at a critical stage in the transformation and upgrading of economic development. These are typical geographical features not found in other provinces and regions. Combining the regional endowments and economic development characteristics of Henan, and discovering its unique regional factors that attract FDI, it will contribute to the expansion and enrichment of FDI theories and researches.

Moreover, Henan Province is located in the middle and eastern part of China, adjacent to Anhui, Shandong, Hebei, Shanxi, Shaanxi, and Hubei provinces. Henan Province is the middle link between the economically developed areas in the eastern part of China and the economically backward areas in the western part of China. Its geographical position is superior, and it was the place where businesspeople gathered in ancient times. In recent years, the strategic deployment of the Central Plains of China has highlighted the geographical advantages of Henan Province. Moreover, Henan Province is the most populous province in China, and the economic development of the whole province is particularly essential. For developing countries, FDI can not only increase their capital stock but also enhance the human capital of host countries and have a lasting impact on their economic growth through spillovers of technology and management experience. Over the years, FDI has played a significant role in promoting the economic development of Henan Province. After 2000, China has formed a pattern of opening up to the outside world of "Special Economic Zones, Coastal Developing Cities, Open Areas, and Inland Areas." With the increase of China's economic openness and the guidance of the national policy of developing the West and Central Plains, FDI projects and inflows have gradually begun to spread to the central and western regions since then. Henan Province, as the combination of eastern developed regions and Western regions, has superior geographical advantages in the central region. Therefore, how to truly realize the interaction between China and the West in the new regional development strategy, promote the development of the western region and the rise of the Central Plains is a problem worthy of attention. Therefore, the systematic study of the influencing factors of FDI in Henan Province has a strong theoretical and practical significance.

This thesis combs the mainstream theories of FDI and related literatures and takes them as theoretical guidance. Aiming at the specific situation of the actual utilization of FDI in Henan Province, this thesis analyses the current situations and characteristics of the actual utilization of FDI in Henan Province from six aspects. They are respectively the development stages of FDI, the investment modes, the flow directions of the investment industry, the sources, the difference of the distribution, and the specific situations and policy backgrounds of the actual utilization of FDI in Henan Province. Then, using the econometric analysis models from the macro perspectives, micro-investor demand in the form of questionnaires, the thesis empirically tests the influencing factors of Henan Province which are derived from the previous theoretical analysis and quantifies the influence of each factor on FDI in Henan Province. In the analysis, combined with the unique local factors of Henan Province and the characteristics of different economic development stages, the determinants of FDI that can reflect the local characteristics of Henan are enriched and refined. Moreover, conduct the interviews with specific investors to make up for the lack of empirical analysis. Then, based on the results of qualitative and quantitative analysis, this thesis proposes relevant suggestions on how to improve the actual

utilization level of FDI in Henan Province, summarizes this thesis, and makes research limitations and prospects for future research. The specific contents of the thesis are as follows :

Part I : Introduction. Firstly, through the situation of attracting FDI inflow in Henan Province in recent years, this part provides the research background, purposes, objects, and problems of this study, as well as the economic and practical significance of studying the influencing factors of FDI in Henan Province. In recent years, FDI entering China and Henan province has developed rapidly. The inflow of FDI has made up for the shortage of initial capital, increased the capital investment, brought advanced technology and management experience, and became a necessary force to support local economic development. Henan Province is a vitally important economic and agricultural province in China, but the amount of FDI attracted is relatively small compared to the coastal areas. Also, there exist substantial differences in the scale of attracting FDI in Henan Province. Therefore, it is necessary to make a comprehensive analysis of the regional factors affecting FDI, and the research could propose more rational ways to introduce foreign capital to promote local economic development. The study aims to contribute to the FDI theory and decision formulation of FDI companies through analysis of influential factors during the process of investment. This thesis will discuss the labor factors, industry factors, and factors of production that can represent Henan's distinctive features from the macro and microlayers.

Secondly, this thesis mainly uses the research methods of combining theory with reality, qualitative analysis with quantitative analysis. The analytical methods used in this thesis are deductive and inductive. The thesis quantitatively analyzes the actual use of foreign capital in Henan Province, collects data and sets up models to quantitatively analyze the factors affecting FDI in Henan Province. In the field survey, the questionnaire is designed for the research objects and hypothesis. Models and theories built outside in the application area cannot accurately depict the real world ; it is necessary to conduct researches with the FDI investors themselves. Then it provides the concepts and data sources involved the main findings and innovations of this thesis. This part defines FDI, the level of research regions, and industrial classification. The thesis takes the administrative district as the regional standard and adopts the secondary administrative district-the prefectural cities as the research objects. Industrial classification will be used in the third chapter, the fourth chapter, and the fifth chapter. The thesis analyzes the influencing factors of FDI of 18 cities in Henan Province using the method of Generalized Least Squares Method model¹ from 1999-2016, and the sample size is 324 in chapter 4. The data used in Chapter 5 comes from questionnaires conducted in the field work between January and April 2018. After screening, 201 questionnaires were used. In the sixth chapter, three typical FDI companies were interviewed, investigated, and analyzed qualitatively.

Finally, the main framework of this thesis is proposed. The whole thesis is divided into seven chapters. The first chapter is the introduction, introduces the background and significance of the topic, and gives a brief introduction to the research ideas and methods. The second chapter reviews the existing literature and discusses the related theories of FDI. The third chapter provides the development of Henan FDI, analyzes the current situation of FDI distribution in Henan. The fourth chapter establishes the theoretical framework, introduces the methods

1 It is hereinafter referred to as GLS.

and sources of data, and uses official statistics to analyze the empirical results from the macro level. The fifth chapter carries out the design of questionnaires and statistical analysis methods, and interviews with investors to understand the operation of foreign investors and the main factors of FDI from the micro level perspective of enterprises. In the sixth chapter, three typical companies are selected for case analysis. The seventh chapter summarizes the whole thesis, draws conclusions, and makes implications.

Part II : Theoretical basis and literature review. Firstly, it introduces the current mainstream theory of international direct investment, and secondly, it summarizes the literature of empirical research on FDI. The study of FDI began in the 1960s. In terms of theoretical research, the product life cycle theory(Vernon 1966), competitive advantage theory(Hymer 1960), internal advantage theory(Buckley and Casson 1976), marginal industry expansion theory(Kojima 1973) and eclectic paradigm theory (Dunning 1973 ; Dunning 1980) all explain the choice of FDI from different angles. In the 1990s, with the development of new economic geography, factors such as agglomeration, culture, and institutions became new perspectives for explaining the location choice of FDI(Changhong 2011). With the improvement of the utilization level of foreign capital, some characteristics and changes have appeared in the research. First, research objects are more specific and detailed. The study begins to shift to different types of foreign companies. Second, the research field tends to be diversified. In addition to the macro analysis of the provinces and regions, it also focuses on the distribution of foreign capital in urban agglomerations. Finally, the influencing factors are more comprehensive. On the basis of the theory of international direct investment and related literature, this thesis concludes that the typical location factors of FDI mainly include market scale, infrastructure, government policy, comparative cost, human resources, urbanization level, agglomeration economy, industrial structure, inflation rate, financial situation, and market opening level.

Part III : Analysis of the current situation of FDI utilization in Henan Province. This part mainly introduces the characteristics of actual utilization of FDI in Henan Province. Firstly, by introducing the development process of Henan Province, this thesis introduces the actual utilization of FDI in Henan Province after the reform and opening up as a whole. After the reform and opening up policy, FDI inflow in Henan has been developing rapidly because of the change of political and economic environment. However, there are a few twists and turns in the process. FDI in Henan has been developing slowly for quite a long time. Several economic crises also affect it. The Asian economic crisis in 1997 resulted in a reduction in FDI in the next few years. China's accession to the WTO in 2001 led to a significant increase. However, due to the impact of the global financial crisis in 2008, growth rates began to slow. Secondly, it deeply analyses the characteristics of the actual utilization of FDI in Henan Province from the perspective of investment industry flow, investment mode, investment source, and regional distribution. FDI inflow in the primary industry is relatively small. In terms of major operation mode, foreign investors in Henan Province mainly adopt both wholly foreign-owned and Sino-foreign joint ventures. Henan's FDI generally comes from three regions : Hong Kong, Macau, and Taiwan. Compared with these three regions, there are fewer investments from developed countries and other regions. The distribution of FDI in cities in Henan Province is extremely

uneven, with Luoyang and Zhengzhou accounting for most of FDI inflow. This part also uses the boxplot, Gini coefficient, coefficient of variation, and FDI performance index to measure the uneven distribution of foreign capital. From 1993 to 2015, the distribution of foreign capital in Henan Province was uneven.

Part IV : this chapter is about empirical analysis of Henan Province using FDI from a macro perspective. This part analyzes the various regional factors affecting the location distribution of FDI by constructing 18-year panel data GLS models of 18 cities in Henan province. It combines Rostow's economic development theory and FDI theory for analysis. Firstly, based on the previous analysis, this part selects specific indicators to measure the influencing factors of Henan Province. The selection of variables and the econometric regression model are determined. Then, in order to avoid the phenomenon of "pseudo-regression," the unit root test of panel time series data is carried out, and it is found that the sample data collected in this thesis are stable and do not need the co-integration test. After the F test, LM test, and Hausmann test, the fixed effect model is used to estimate. In order to ensure the robustness of the model, the first-order autocorrelation test and Heteroscedasticity test are used to test and find that there are first-order autocorrelation and GroupWise heteroskedasticity in the model. This thesis finally decided to use the GLS model to estimate the data of 18 cities in Henan Province from 1999 to 2016, obtains the specific quantitative relationship between Henan Province and its influencing factors, and makes economic explanations.

Moreover, according to Rostow's theory of economic development, it makes analysis and comparison in different stages. It proves that besides the impact of Henan Province's opening degree is different from expectations ; other factors have significant impacts on Henan Province. The empirical results clearly show that FDI in Henan province tends to flow to regions with high GDP, fast GDP growth, relatively low openness, high agglomeration, and better development of the primary and secondary industry. In the transitional society and take-off stage, when the leading industry is the labor-intensive industry, low-educated workers are more popular, and wages have a negative effect. When in the process of the industry optimizes and upgrades, the demand for high-education workers increases, and as an indirect measure of labor quality, wages began to have a positive effect on FDI.

Part V : this chapter is about empirical analysis of Henan Province using FDI from a micro perspective-investor demand. This part mainly uses the form of questionnaires to analyze further and study the parts that cannot be touched by macro data analysis. This thesis mainly uses factor analysis and cluster analysis to analyze the types of companies studied, and uses variance analysis to study the impact of internal characteristics of companies on FDI decision-making, and finds that the company's size, investment period, industry and cultural background will have an impact on the final decision-making of FDI. Through factor analysis, it can be seen that the influential factors can be divided into seven factors : "politics," "openness," "economy," "cost," "factors of production," "transportation infrastructure" and "general infrastructure." The small-sized and medium-sized enterprises with less than 5 million and between 5 and 30 million are classified as "cost-oriented type" ; the medium-sized and super-large enterprises with between 5 and 30 million and more than 100 million are "transport infrastructure-oriented

type” ; Medium-sized enterprises with between 5 and 30 million are classified as “factors of production and general infrastructure-oriented type.” The results show that among the different variables of enterprises characteristics, “enterprises size” and “investment period” have significant differences in investment factors intention. Among them, the more considerable investment the enterprises made, the more they attach importance to the political environment. As for companies with more employees, they pay more attention to the political environment. The larger the company, the more bargaining powers it have negotiates with the government. The longer the enterprises invest, the more they attach importance to the political environment and transport infrastructure. The companies in the tertiary industry have shown great enthusiasm for future additional investment. Companies with a Chinese background have a vital position in the initial investment, but as the investment deepens and additional investment is made, the gap caused by this cultural proximity will gradually decrease.

Finally, the SEM model is used to analyze the factors affecting FDI. In the complete model verification, it was found that political environment factor, economic environment factor” , “factors of production” and “cost factors” have the significant positive impacts on FDI. The impact of openness and the infrastructure on FDI did not receive statistically significant support in the study. In the complete model verification, it was found that political environment factor, economic environment factor” , “factors of production” and “cost factors” have significant positive impacts on FDI. That is, when the politic, economic, production environment and cost are better, the more enterprises go to invest and set up companies and factories in Henan province. The impact of cost factor on FDI is greater than the other factors, indicating that cost is still the most critical factor affecting the willingness of enterprises to invest in Henan province. Among the political environment factors, the “local government incentives” has the highest impact on political environment factor, followed by “local government service quality and sincerity” ; and “size of the economy” has the highest impact on economic environment factor, followed by “the average income of local residents.” Among the factors of production, the “local supply of labor force” has the highest impact on factors of production, followed by “local quality of labor” and “high industry concentration (industrial park)” ; and “local transport cost” has the highest impact on the cost factor, followed by “local wage” and “local land cost” .

Part VI : Through interviews, case studies of three related investment companies were conducted. In this chapter, comparing the factors with the results of statistical analysis, it can be found that the regional factors affecting FDI in Henan are the same. FDI can be influenced by preferential government policies, labor supply, labor quality, factors of production, costs, infrastructure, local political and business environment, and other factors. Moreover, through interviews and analysis of Foxconn and Company A and Company B, it is found that the main factors of attracting investment in Henan are based on illegal and normative behavior, and the rule of man is quite severe. The business environment is not friendly to smaller companies, and labor quality, local clan forces, and industrial chain environment will also have considerable impacts on investment.

The scale of foreign investment can lead to a large degree of flexibility in the government's support and even make the government have blind eyes to some illegal and non-compliant

phenomena to the large scale enterprises, forming a legal vacuum. Moreover, these are the key reasons why even other regions cannot replace them and choose to invest in Henan. This kind of government support can even wholly ignore other adverse factors. After understanding the company's case, it can be found that although Henan has a large population ; it is difficult for companies with quality requirements for workers to find suitable employees. Under the local industrial situation in Henan, industrial agglomeration and related industrial chains cannot be formed, making it difficult for companies to survive even when they come to Henan.

Part VII : Suggestions and conclusions. Firstly, based on the previous research, this thesis provides some conclusions and suggestions on how to improve the attraction level of Henan Province. It includes the ways of Henan Province government improve FDI, investment environment, investment structure, government policy, quality of labor and expand the sources of foreign investment, etc. ; secondly, it explains the limitation of research and prospects in the future. The lack of official data in some areas has led to the limitation of research on economic data. The research period is only 18 years, which result in the small sample size in the panel data analysis in Chapter IV, and makes it impossible to carry out a regional comparative study. The interview survey can only be conducted for a small number of investors, but the lack of investigation time limits it, the high position of the interviewee and the working time is not fixed. Some of the respondents are often not in the office or company, and the investment is a major strategic decision of the company. It will involve sensitive information within the company, so ultimately, it is impossible to conduct a more in-depth case study to obtain more detailed content. During the time of doing research, it is in the critical period of national environmental impact assessment and side supply policy. Relevant national policies impact some enterprises. Therefore, whether the willingness of these companies to invest has been affected, which leads to biased responses to the questionnaire, may also be the place for comparison or verification in the follow-up study.

In the future, more specific research variables in Henan can be explored, and the panel data can be compared and analyzed among the north, middle and south regions of Henan and the follow-up researchers can get better empirical results. Panel data analysis usually needs an indicator to represent a factor ; some factors cannot be more refined. Therefore research can find the appropriate refinement variables for quantitative analysis. In addition to expanding the research samples, the research scope will be extended to different industries. Research on FDI entering Henan and interviewing investors in subsequent questionnaires is an after-the-fact study. Regardless of whether it is before or after the study, it is crucial for the entry of FDI. Therefore, after the research proves the relevant influencing factors, the follow-up research should continue to explore the issues decided beforehand.

Based on the insufficiency of the current research on FDI in Henan Province, the unique regional and policy background of Henan Province, this thesis mainly considers the following issues will be the essential content and innovation of this study. Previous studies mostly focused on large regions and China as research objects, but China is huge, different regions have different regional characteristics, and there is very little research on Henan, which is also the contribution of this study. Combined with the characteristics of Henan Province's region, the

impact of different levels of labor, industrial structure closely related to industrial upgrading, and the influencing factors of different economic development stages on FDI are analyzed in this thesis, and these are not touched and covered in previous studies. Few studies have studied the regional factors that attract FDI from the micro level-enterprise perspective in the form of questionnaires, and few scholars have investigated factors of production as an essential factor of FDI. The study will integrate the variables related to factors of production for a holistic test and use the form of questionnaires, the statistical analysis of the collected questionnaires to make the verification. In interviews with companies surveyed, it was found that in China, especially in the Mainland, the rule of man and private relations have even become critical factors in introducing investment. Clan local forces also have an impact on FDI.