

The Impact of Two-Way FDI on the urban-rural Income Gap Based on Broad Least-Squares Analysis

Xiaoke Xu*

Southwestern University of Finance and Economics, Jiujiang, Jiangxi 332005, China

*Corresponding author: 41802045@smail.swufe.edu.cn

Abstract. With the continuous promotion of China's opening up to the outside world, the gap between the urban and rural residents in China has been greatly affected. To study the influence mechanism of two-way FDI on the income gap between the urban and rural residents and to study the influence mechanism of two-way FDI on the income gap between the urban and rural residents, this paper selects panel data on the income gap between the urban and rural residents in 31 provinces of China from 2009-2018 from the International Bureau of Statistics, the People's Bank of China and the Ministry of Commerce, construct a generalized least squares model, uses STATA software, and conducts an empirical study. The research results show that the development of two-way FDI has a significant effect on reducing the income gap between the urban and rural residents. Based on the above findings, this paper puts forward the following suggestions. (1) Promote stable domestic economic growth to lay the foundation for narrowing the gap between urban and rural residents. (2) Develop high-quality foreign trade and promote labor mobility outside the secondary and tertiary industries. (3) Improve China's financial market and enhance financial efficiency. (4) Promote technological innovation and upgrade industrial structure.

Keywords: component; income gap between the urban and rural residents; Two-way FDI; Economic effects; Impact path

1. Introduction

Driven by the trend of economic globalization and integration, the flow of international capital is becoming increasingly active, of which 75% of the capital flows through foreign direct investment. With the deepening of economic globalization and the deepening of domestic reform and opening, FDI has become an important part of China's economy and has a huge impact on the development of China's economy. When urban and rural income distribution has become an important obstacle to China's economic development and social stability, it is particularly necessary and urgent to explore the relationship between foreign direct investment and Chinese urban and rural residents' income inequality and further study the influence of FDI on the regional urban and rural income inequality and its transmission mechanism.

2. Literature Review

2.1 Review of the economic effects of international direct investment

2.1.1 Economic growth effect

Studies such as Dunning [1] and Prasad [2] show that OFDI promotes the economic growth of the country by, among other things, promoting the growth of domestic savings. Linhai Wu and Jihai Chen [3] demonstrate that FDI has economic growth effects from a factor perspective. Jiang Wei [4] finds that the economic growth effect of OFDI is greater than the economic growth effect of FDI through comparative arguments. On the other hand, Liu, Haiyun and Gong, Mengqi [5] explored the relationship between economic growth and two-way FDI in different economies through an empirical study.

2.1.2 Financial development effect

In terms of the financial development effect of OFDI, Luo, Liangwen [6] shows that OFDI will have a positive effect on the financial resources, financial market size, and financial structure of the

home country. Jiang Guanhong and Zhang Xingyue [7] measure the positive relationship between it and OFDI through five aspects of financial development. In terms of the financial development effect of FDI, Luo Changlong and Chen Lin [8] argue that FDI improves the efficiency of financial resource allocation by alleviating the financing constraints of enterprises, thus promoting financial development. Iamsiraroj [9] finds that FDI increases a country's financial markets and expands the financing channels of domestic firms, especially when financial resources are lacking. The promotion effect of FDI on financial markets will be more obvious. On the other hand, Tian Suhua [10] integrates two-way FDI to explore its financial effects, and the study finds that two-way FDI will promote the development of financial markets in a country or a region.

2.1.3 Export creation effect

The interrelationship between international investment and international trade has always been a hot topic for scholars at home and abroad. More scholars explore its export creation effect from the perspective of OFDI and FDI, respectively. KOJIMAK [11] found that FDI can create new trade between the investing and host countries, and the two are positively related. Dai and Luo Xichen [12] found that foreign enterprises' investments in the country would stimulate domestic firms' sense of crisis, thus promoting domestic firms to speed up technology research progress and development, thus promoting export growth. Jifeng Zhang and Ping Huang [13], on the other hand, first classified OFDI into reverse upward investment and downward investment according to the degree of economic development of the target country and found through empirical evidence that either type of investment would generate significant trade creation effect. Qilin Mao and Jiayun Xu [14], argue that OFDI can make the host country's demand for intermediate goods in the home country grow a lot as a way to promote the increase of home country exports. Jiang Guanhong and Jiang Dianchun [15], also prove through empirical methods that OFDI does have export-creating effects, concluding that OFDI in China can promote exports in general. A few scholars have comprehensively explored the import and export trade effects of two-way FDI, for example, Jiang Wei and Fu Yuchen [16], compare and analyze the two and find that in terms of export effects, there is an upward trend of OFDI and a downward trend of FDI in the long run.

2.1.4 Two-way technology spillover effect

Jing Guangzheng's [17] study found that OFDI has a reverse technology spillover effect, i.e., advanced technology and experience can be reversed back to the home country through foreign investment, while FDI has a technology spillover effect, i.e., its advanced technology and knowledge can be directly learned and absorbed through foreign investment. And Kogut and Chang [18] found that the reverse technology spillover effect can not only induce the home country to gradually technology of the host country through OFDI but also show that it can master the local direction of new technology development in the host country; Shen Kunrong and Geng Qiang [19] confirmed that FDI does transfer the capital, advanced production, and management technology and other factors from the home country to the host country. Some scholars also take the perspective of two-way FDI, such as Ling, Dan, et al. [20], by constructing a complete transmission mechanism as a way to deduce that two-way FDI generates technology spillover and promotes technological innovation, thus promoting the upgrading of industrial structure.

2.2 Review of research on the urban-rural gap and FDI

After the reform and opening-up, the level of China's utilization of foreign direct investment (FDI) has been FDI (after the reform and opening up, China's utilization of foreign direct investment) level has been increasing, the scale has been increasing, but at the same time, the income gap between urban and rural areas is also widening. What is the correlation between FDI on China's the urban-rural income gap and to what extent it has an impact, different scholars have different opinions. Liu Yulin, Teng Yang Yang, and Li Houjian[21] found that the inflow of FDI can suppress the widening trend of the urban-rural income gap through the empirical data of Jiangsu Province, and FDI is also an endogenous variable to narrow the urban-rural income gap. He Feng and Xu Guilin [22] argue that

there is also a significant inverted U-shaped relationship between FDI and the urban-rural income gap, and China is located in the left half of the curve at this stage, and the rise of FDI dependence will further worsen the income gap between the urban and rural residents in China. The empirical studies by Wang, Navy [23], Li, and Yiqi Wang show that there is a positive relationship between FDI and the urban-rural income gap.

3. an empirical analysis of two-way FDI on the urban-rural income gap

3.1 Description of variables and data

Table 1. Variable Meaning and Theoretical Explanation

Variable type	Variable name	variable symbol	Meaning	Expected symbol
Interpreted variable	Income gap	<i>GAP</i>	Urban per capita disposable income/rural per capita net income	+
Core explanatory variable	Development scale of two-way FDI	<i>IDI</i>	{foreign direct investment flow * current actual foreign direct investment/[(foreign direct investment flow+current actual foreign direct investment)/2]} ^{1/2}	-
Control variable	Financial development indicators	<i>FD</i>	(Loan balance+deposit balance) /GDP	+
	indicator of economic development	<i>PGDP</i>	per capita GDP (gross domestic product)	-
	Industrial structure	<i>AGR</i>	Gross domestic product /GDP of the primary industry	-
	foreign trade dependence degree	<i>OPEN</i>	Gross output value /GDP of the primary industry	-

This paper constructs the panel data of 31 provinces in China from 2009 to 2018. For data sources, loans and deposits of financial institutions come from the People's Bank of China in both local and foreign currencies; Foreign direct investment flows come from the Ministry of Commerce; The rest of the data are from the National Bureau of Statistics. To reduce the influence of heteroscedasticity and prevent the numerical value from changing too much, the IDI index is treated by a natural logarithm. Statistical descriptions of main variables are shown in Table 4-2.

Table 2. Descriptive Statistics of Main Variables

Variable name	observed value	Mean value	standard deviation	minimum value	maximum
GAP	304	61.15789	36.19987	1	141
IDI	302	10.64894	1.906845	0.6930323	13.96195
FD	310	3.546705	1.372047	1.653811	9.462162
PGDP	310	4.768227	2.470497	1.106214	14.07615
AGR	310	0.0964061	0.0498025	0.0032069	14.07614
OPEN	310	0.2744979	0.3206868	0.0167945	1.548163

To analyze the relationship between the urban-rural disparity and two-way FDI in the original data, Figure 3-1 and Figure 3-2 are drawn by the drawing function of STATA software. From Figure 5-1, we can find that the development of the urban-rural disparity and two-way FDI in 31 provinces and municipalities are generally consistent, and Figure 3-2 can initially find that the relationship between the urban-rural and two-way FDI shows a negative correlation.

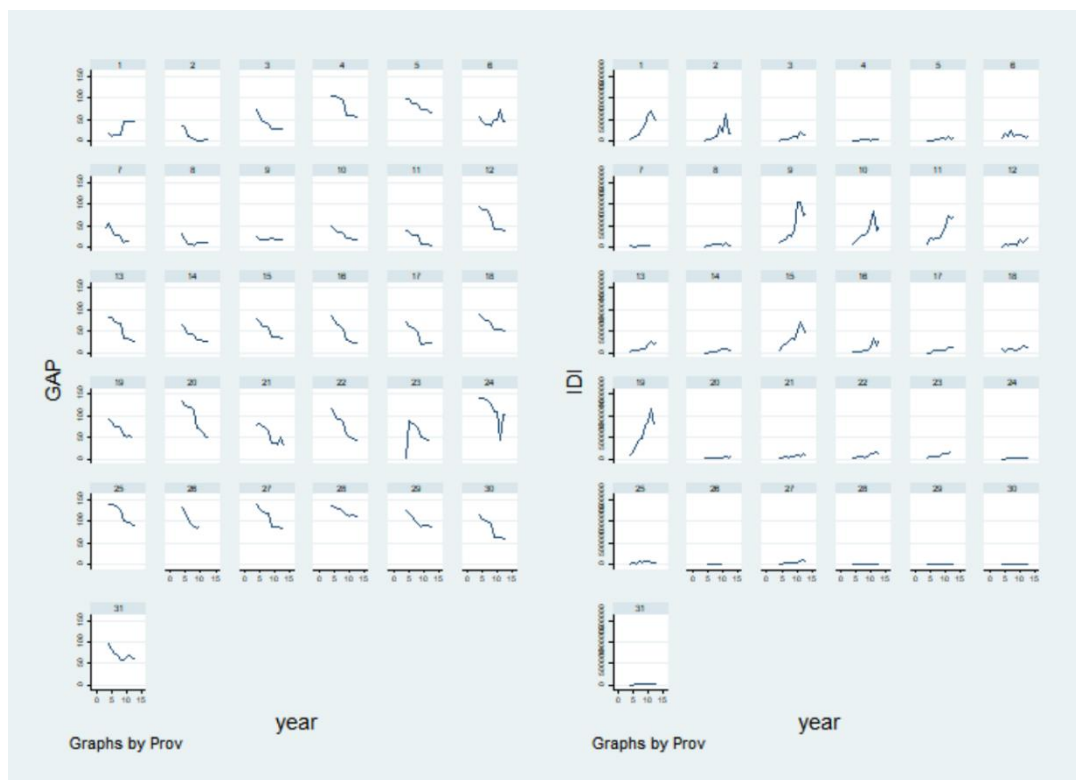


Figure 1. The gap between urban and rural areas and the development trend of two-way FDI in various provinces and cities

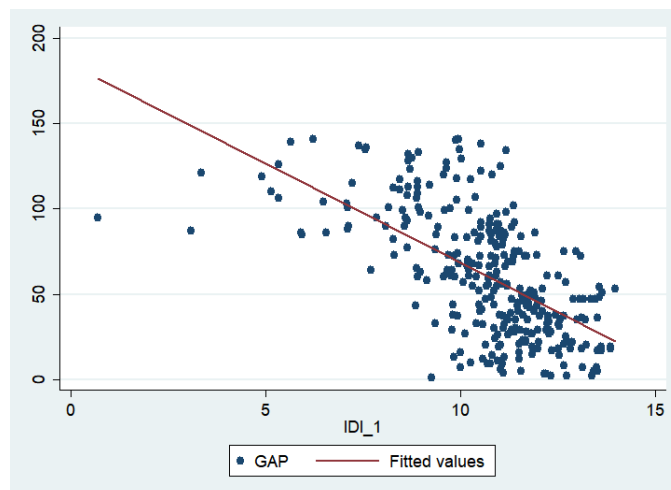


Figure 2. Relationship between the urban-rural Gap and Two-way FDI

Based on the provincial panel data from 2009 to 2018, this paper constructs a generalized least squares model to empirically investigate the impact of two-way FDI on RMB cross-border settlement.

3.2 Model setting

$$GAP_{it} = \alpha + \beta * IDI_{it} + \sum \varepsilon * X_{it} + \mu_{it} \quad (1)$$

In formula (1), GAP is the gap between urban and rural areas, IDI is the development scale of two-way FDI, and x is the set of control variables, including financial development index (FD), economic development index (PGDP), foreign trade dependence (OPEN), industrial structure (AGR), etc. I and t represent provinces and years, respectively, and α and μ are intercept terms and disturbance terms.

3.3 Empirical Results and Analysis

Based on provincial panel data from 2009-2018, this paper constructs a generalized least squares model to empirically examine the impact of two-way FDI on the gap between urban and rural residents.

3.3.1 Benchmark inspection

Unit root test. This test is generally used for time series data. In panel data, this test is mainly suitable for large samples, but not for small samples, because if the sample size is too small, it is less likely that there will be unit roots in time series. In this paper, the period of data is 10, a small sample, and can be directly used for regression analysis.

To determine the model form of panel data, make the conclusion more robust and credible, and avoid the problems of heteroscedasticity and sequence correlation, this paper uses the Hausman test, Wald test, Wooldridge test, and Pesaran test based on the Bootstrap method, and finds that if the fixed effect model is used, the problems of sequence correlation and heteroscedasticity will exist. Therefore, to make the estimation result more accurate and credible, this paper chooses the generalized least squares method (FGLS) to study the impact of two-way FDI on the urban-rural gap in China. Finally, the results of model (3) in Table 5-1 are adopted.

Table 3. Empirical Results of Basic Regression

	RE (1)	FE (2)	FGLS (3)
<i>IDI</i>	-4.2582*** (-3.66)	-2.4919** (-2.16)	-5.2132*** (-4.73)
<i>PGDP</i>	-7.1349*** (-6.97)	-8.5700*** (-8.68)	-8.4066*** (-7.56)
<i>FD</i>	-4.0531** (-2.16)	-8.8250*** (-4.59)	4.7586*** (3.11)
<i>OPEN</i>	-54.7581*** (-5.74)	-104.0803*** (-9.39)	-12.0655* (-1.70)
<i>AGR</i>	15.2032 (0.20)	142.6690* (1.74)	-107.4699 ** (-2.44)
<i>Cons</i>	168.0046*** (10.24)	174.4733*** (10.57)	153.6278*** (12.22)
<i>N</i>	302	302	302
<i>adj. R²</i>		0.555	

Note: the standard deviation is in brackets under the variable coefficient; The z value is in brackets in the model selection test; * * *, * * and * represent the significance level of 1%, 5%, and 10% respectively, and the following table is the same.

Empirical analysis of FGLS model. According to model (3), the significance levels of two-way FDI(IDI), economic development index (PGDP), and financial development index (FD) are all 1%, the significance level of industrial structure index (AGR) is 5%, and the significance level of foreign trade dependence is 10%. Besides, the symbols of the financial development index (FD) are positive. In contrast, the symbols of two-way FDI(IDI), economic development index (PGDP), industrial structure index (AGR), and foreign trade dependence (OPEN) are all negative. Explain that the explanatory variables in the model have a significant impact on the gap between urban and rural areas. The increase of two-way FDI will significantly reduce the GAP between urban and rural areas. However, the financial development index (FD) increase will significantly promote the widening gap between urban and rural areas. The economic development index (PGDP) increase will significantly reduce the GAP between urban and rural areas. The increase of dependence on foreign trade (OPEN) will significantly increase the GAP between urban and rural areas. The industrial structure index (AGR) increase will significantly reduce the GAP between urban and rural areas. To further understand the relationship between the explanatory variables and the explained variables in the model, refer to the method of stepwise regression estimation in the articles of Li Kunwang and Wang Youxin (2013). In this paper, the least square method is used to put the independent variables into the model for regression, and the results are shown in Table 5-2. According to the analysis results, whether it is basic regression or stepwise regression, Two-way FDI(IDI) significantly impacts both urban and rural areas. It has passed the 1% significant level test, and other explanatory variables significantly impact the urban-rural gap.

Table 4. Stepwise Regression Results

	FGLS (4)	FGLS (5)	FGLS (6)	FGLS (7)	FGLS (3)
IDI	-11.5942*** (-13.47)	-11.5942*** (-13.47)	-5.9722*** (-5.64)	-5.6909*** (-5.20)	-5.2132*** (-4.73)
PGDP			-7.2296*** (-7.70)	-7.0113*** (-7.28)	-8.4066*** (-7.56)
FD			3.8043*** (2.79)	4.5301*** (2.94)	4.7586*** (3.11)
OPEN				-6.7801 (-0.99)	-12.0655* (-1.70)
AGR					-107.4699** (-2.44)
Cons	184.4457*** (19.81)	184.4457*** (19.81)	145.7119*** (13.78)	141.0105*** (12.19)	153.6278*** (12.22)
N	302	302	302	302	302

3.4 Robustness test

3.4.1 Endogenous control

To further test the model's robustness and consider the endogenous problem, that is, the development of the urban-rural gap will also promote the development of two-way FDI in reverse. This paper selects tools variable quantity stage least square method (2SLS), GMM method, and so on to control endogeneity. Firstly, the houseman test is used to determine the endogenous problem of the model; Secondly, then use DWH test method to verify that the core explanatory variable bidirectional FDI(IDI) is indeed an endogenous explanatory variable. Therefore, this paper selects lag terms (first order and second order) of endogenous variables as tool variables for two-stage least square regression (2SLS). The specific results are reported in the first column of Table 5-3. To avoid the influence of heteroscedasticity, this paper further selects GMM and iterative GMM methods for regression. The results also passed the over-recognition test. It can be seen from Table 5-3 that the core explanatory variable bidirectional FDI(IDI) has passed the 1% significant level test, and other explanatory variables are consistent with the expected results, thus proving the stability of the model conclusion.

Table 5. Empirical Results of Robustness Test

	2SLS	GMM	IGMM
<i>IDI</i>	-5.3251*** (-4.68)	-5.3251*** (-4.95)	-5.3251*** (-4.95)
<i>PGDP</i>	-8.3423*** (-7.42)	-8.3423*** (-7.23)	-8.3423*** (-7.23)
<i>FD</i>	4.7014*** (3.06)	4.7014*** (2.98)	4.7014*** (2.98)
<i>OPEN</i>	-11.8519* (-1.67)	-11.8519* (-1.69)	-11.8519* (-1.69)
<i>AGR</i>	-106.6741** (-2.42)	-106.6741*** (-2.62)	-106.6741*** (-2.62)
<i>Cons</i>	154.5772*** (12.08)	154.5772*** (12.47)	154.5772*** (12.47)
<i>N</i>	302	302	302
<i>R</i> ²	0.4941	0.4941	0.4941
<i>adj. R</i> ²	0.486	0.486	0.486

3.4.2 Split the independent variable

In the benchmark regression, the formula for calculating the interactive development level of independent variable bidirectional FDI is $IDI = \{FDI_{it} * OFDI_{it} / [(FDI_{it} + OFDI_{it}) / 2]\}^{1/2}$. To further investigate the impact of OFDI and FDI on RMB cross-border settlement and further test the model's reliability, this paper splits the independent variable. It brings OFDI, FDI, and the interactive terms between OFDI and FDI into the model for testing. To eliminate the influence of heteroscedasticity, the generalized least square method is still selected, and the indicators OFDI, FDI, and OFDI*FDI are all treated logarithmically. The specific estimation results are shown in Table 5-6.

Table 6. Empirical Results of Robustness Test

	FGLS(8)	FGLS(9)	FGLS(10)
<i>OFDI</i>	0.8414*** (0.0447)	0.7190*** (0.0551)	0.0000*** (0.0000)
<i>FDI</i>		0.1732*** (0.0506)	0.0000*** (0.0000)
<i>OFDI*FDI</i>			0.2599*** (0.0351)
<i>Cons</i>	-3.3342*** (0.5052)	-4.1473*** (0.5681)	-0.0817 (0.8493)
<i>N</i>	250	243	243

From Table 5-4, it can be seen that whether we examine the impact of OFDI and FDI on the gap between urban and rural areas alone or build an interactive entry model of OFDI and FDI to examine their impact on RMB cross-border settlement, each variable has passed the 1% significant level test, so it can be proved that OFDI and FDI will have a significant positive impact on RMB cross-border settlement. Once again, it helps to prove the credibility of the conclusion.

3.5 Analysis of influence mechanism

In this paper, the generalized least square method (FGLS) is used in benchmark regression to prove that two-way FDI can significantly alleviate the gap between urban and rural areas. According to the empirical results and previous mechanism analysis, to further explore the influence path of the urban-rural gap, this paper explores the influence mechanism by constructing interactive items. The interactive items of two-way FDI(IDI), economic development index (PGDP), the financial

development index (FD), foreign trade dependence (OPEN), and industrial structure (AGR) are added to reflect the four major effects of economic growth, financial development, export creation, and two-way technology spillover, and the influence mechanism of IDI on the urban-rural gap is tested. The model is as follows:

$$GAP_{it} = \alpha + \beta * IDI_{it} + \sum \varepsilon * X_{it} + \gamma IDI_{it} * X_{it} + \mu_{it} \quad (2)$$

In formula (2), the specific meanings of GAP, IDI, and x are the same as those of formula (1). $IDI_{it} * X_{it}$ is the interactive item of two-way FDI, economic development index (PGDP), financial development index (FD), foreign trade dependence (OPEN), and industrial structure (AGR). i and t represent provinces and years, respectively, and α and μ are intercept terms and disturbance terms.

Analysis of interactive item results. After introducing the interactive term, the partial regression coefficient of the dependent variable changed, so all the dependent variables were decentralized. It can be seen from Table 5-6 that all the interactive items have passed the significance level test. This mainly shows that China's two-way FDI can significantly reduce the widening gap between urban and rural areas through economic growth effect, export creation effect, and two-way technology spillover effect. Two-way FDI in China can promote the widening gap between urban and rural areas through the financial development effect.

Table 7. Impact Mechanism Test

	FGLS(17)	FGLS(18)	FGLS(19)	FGLS(20)
<i>IDI</i>	-10.3652*** (-6.60)	6.8259** (2.25)	-13.1469*** (-4.94)	-9.1485*** (-7.45)
<i>PGDP</i>	-30.1729*** (-6.05)	-10.3216*** (-8.81)	-8.8203*** (-8.02)	-9.2093*** (-8.70)
<i>FD</i>	4.1479*** (2.79)	4.6920*** (3.15)	-19.6290*** (-2.58)	3.0627** (2.08)
<i>OPEN</i>	-15.7071** (-2.27)	-23.5529*** (-3.18)	-15.2407** (-2.17)	-294.4044*** (-6.22)
<i>AGR</i>	-122.2681*** (-2.86)	1048.578*** (3.79)	-123.843*** (-2.84)	-92.3941** (-2.22)
<i>IDI * PGDP</i>	1.7582*** (4.47)			
<i>IDI * FD</i>		-112.2992 *** (-4.23)		
<i>IDI * OPEN</i>			2.1361*** (3.27)	
<i>IDI * TAGR</i>				24.1117*** (6.03)
<i>Cons</i>	61.2582*** (42.85)	61.0301*** (42.53)	60.3259*** (40.84)	62.0584*** (44.29)
<i>N</i>	302	302	302	302

The specific impact mechanism is analyzed as follows:

(1) Two-way FDI affects the income gap between the urban and rural residents through the economic growth effect

Two-way FDI promotes the country's economic growth through the economic growth effect and the promotion of domestic savings. And promote technological progress and innovative management mode from economic growth. Economic growth is directly reflected in the income level of residents. However, the economic growth caused by technological progress and the promotion of innovative management models is mainly reflected in the income level of urban residents. Therefore, two-way FDI increases the income gap between the urban and rural residents in China through economic growth benefits.

(2) Two-way FDI affects the income gap between the urban and rural residents through the financial development effect

On the whole, there is a long-term equilibrium relationship between the income gap between urban and rural areas and the scale and efficiency of rural finance in China. There is a positive correlation between rural financial scale and the urban-rural income gap, while there is a negative correlation between rural financial efficiency and the urban-rural income gap. Through the financial development effect, two-way FDI has promoted China's financial scale and financial development efficiency at a certain level. In the analysis of this paper, financial development will widen the income gap between the urban and rural residents. However, two-way FDI can narrow the income gap between the urban and rural residents through the financial development effect. This shows that the effect of financial development improves financial efficiency more than the expansion of financial scale.

(3) Two-way FDI affects residents' income gap through export creation effect

Stolper-Samuelson Theorem points out that the reward for using more factors of production for export products will increase international trade. In comparison, the reward for using more factors of production for import products will decrease. For developing countries like China, we mainly import technology and capital-intensive products and export labor-intensive products. This will increase the labor income of ordinary workers in China and narrow the income distribution gap of residents. However, China's import and export trade is mainly concentrated in the eastern coastal areas but less in the central and western regions, which will expand the income gap between residents to a certain extent. With the rise of the central and western regions and the development of international trade, this proportion has gradually declined. But generally speaking, the eastern coastal cities are still the import and export centers of our country, and this unbalanced development will increase the income of coastal workers to some extent. In addition, as far as the whole country is concerned. The mobility of China's labor force elements is insufficient. In the eastern coastal areas, labor mobility is strong, and labor can flow from the mountains according to market changes and realize the optimal allocation of labor resources.

(4) Two-way FDI affects the income gap between the urban and rural residents through the two-way technology spillover effect

Two-way FDI can make our country directly learn and absorb its advanced technology and knowledge through foreign investment, promote technological innovation and promote the upgrading of industrial structure. The projects and actual amounts of FDI absorbed by China's three major industries are quite different, and FDI also has significant characteristics in industrial selection. In China, the proportion of FDI flows to agriculture, forestry, animal husbandry, and fishery and construction industry is small. Still, the employment groups engaged in such jobs have a certain proportion in China, and they are mainly low-income groups in rural areas. They do not enjoy the capital dividend brought by FDI. FDI in China is mainly concentrated in labor-intensive and technology-intensive industries, among which labor-intensive manufacturing is a typical representative. With the acceleration of urbanization in China, the rural surplus labor force is mainly transferred to the urban manufacturing industry. In addition, in the tertiary industry, FDI is mainly concentrated in real estate, finance, and insurance, leasing and service industries, etc., and the investment of FDI in these industries has steadily increased, which is precisely a high-profit industry, especially the real estate industry that has been particularly prosperous in the last decade. The average wages of these industries far exceed those of other industries, thus affecting the labor income gap between industries. In addition, in recent years, because the state supports and encourages FDI to invest in technology and knowledge-intensive industries, the demand for high-level talents increases, the income of high-level talents increases, and the income gap between high-level talents and ordinary workers also widens.

4. Policy Recommendations

4.1 Promote steady domestic economic growth

Promoting steady growth of the domestic economy and laying the foundation for narrowing the gap between urban and rural residents steadily promote the development of the national economy,

optimize the economic structure, form the economy of scale effect, and lay the economic foundation for narrowing the gap between urban and rural residents. At present, to reduce the short-term downward pressure on our economy, our government should strive to build positive interaction between the internal and external double cycle and actively coordinate the two domestic and foreign markets and two kinds of resources.

4.2 Develop high-quality foreign trade and promote labor mobility beyond secondary and tertiary industries

The empirical results show that the promotion effect of export creation effect on narrowing the urban-rural gap needs to be further improved compared with other economic effects. Hence, China should vigorously develop high-quality foreign trade and improve foreign trade competitiveness. For example, the government needs to continuously optimize China's foreign trade structure, expand the proportion of service trade, promote the transformation and upgrading of trade structure, and enhance the degree of differentiation and competitiveness of export products. Moreover, it should accelerate the mobility of the labor force so that more labor force will flow from primary industry to secondary and tertiary industries.

4.3 Improving China's financial markets and financial efficiency

Previous studies have shown that the expansion of the financial market scale will, to a certain extent, increase the urban-rural gap. Because the inefficiency of rural finance makes the dividends of financial market expansion shift more to cities so that the increase of urban residents' income is greater than that of rural residents, and the income gap between the urban and rural residents' increases. On this basis, China should improve the efficiency of the financial market based on expanding the scale of the financial market, so that the dividends from the expansion of the financial market are more transferred to the rural residents and the urban-rural income gap is reduced.

4.4 Promote technological innovation and industrial structure upgrading

The lack of competitiveness of China's export products has always been an important factor restricting reducing the income gap between the urban and rural residents. Therefore, China should continuously develop core technologies, cultivate competitive export enterprises and enhance the competitiveness of export products. First of all, we should vigorously develop technology-based two-way FDI and change the development model of two-way FDI from "quantity" to "quality", to use the two-way technology spillover effect generated by two-way FDI to promote the technological progress of China. Secondly, we can focus on choosing countries or regions with a small technological gap with China for international investment. In addition, we can also follow the rules of competitive neutrality, seize technological development opportunities such as artificial intelligence and digital technology, encourage domestic and foreign enterprises to form strategic alliances, jointly carry out technological research and development, and foster the development of innovative enterprises.

5. Conclusion

The empirical test finds that two-way FDI does reduce the gap between urban and rural residents. To further explore the influence path of the urban-rural residents' income disparity, this paper explores the influence mechanism by constructing interaction terms; to further test the robustness of the model, this paper passes a series of robustness tests. The final research results show that. (1) the development of two-way FDI has a significant narrowing effect on the income gap between the urban and rural residents; (2) two-way FDI will positively promote the narrowing of the income gap between the urban and rural residents through the economic growth effect it creates, the two-way technology spillover effect and the export creation effect, while the financial development effect will promote the widening of the income gap between the urban and rural residents.

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