A Study on the Influence of FDI on Wages based on the View of Generalized Virtual Economy

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Abstract. At this moment, with the development of the generalized virtual economy, the society has stepped into the "humanistic economy" era which gives priority to the psychological needs, from the traditional economy era which satisfies physiological needs. Based on the background, we use the data of generalized virtual economy industry in 2004-2016. This paper studies the influence of FDI on average wage wages from the perspective of generalized virtual economy. The results show that FDI in generalized virtual economy industry can promote the increase of average wage level in China's generalized virtual economy industry, every 1% increase of FDI, the average wage level in the industry grew by 0.880179%.

Keywords: FDI; generalized virtual economy; wage level.

1. Introduction

Since the reform and opening up, especially since the 1990s, China's employment has not been accompanied by rapid economic growth to achieve synchronous co-progressive. The reason, from the internal point of view, China's growth mode model has long been in the extensive stage, the industrial structure of the generalized virtual economic development is relatively lagging behind. If the adjustment of traditional industrial structure is accelerated along with the generalized virtual economic development, which vigorously develops to meet people's psychological needs and spiritual needs for the purpose and embodies elements such as branding, service, experience and cultural consumption, we will be able to give full play to the advantages of low capital composition of material means of production, enrichment of human capital elements and high elasticity of labor and employment, so as to promote the coordinated development of employment while promoting the transformation of economic growth mode.

2. Literature Review

The existing literature focuses more on the study of the role of FDI in economic growth or employment. For example, Wang et al. (2006)[1] focused on the analysis of the relationship between FDI and employment structure change, and they found the insufficient influence of FDI on the tertiary industry is not conducive to the transfer of rural surplus labor force and the further optimization and upgrading of industrial structure in China. Liu et al.(2013)[2] studied the impact of FDI on economic growth and employment in the 1985-2010 based on VAR model, and found that there is a two-way and dynamic causality between FDI and its economic growth, and that FDI brings about an increase in employment, which also has an interactive promotion relationship with economic growth.

There are a few researches on the employment effect of FDI based on the perspective of generalized virtual economy. Zhu et al. (2013)[3] mainly researched on the quantity, structure and quality effect of generalized virtual economy development on employment growth from the needs, supply and factor characteristics of generalized virtual economy, analyzes the reaction of employment growth to the development of generalized virtual economy from two levels of production and consumption, and illustrates the coordination mechanism of the relationship between the two and its coupling mechanism.

3. Empirical Analysis

Next, we will make a quantitative study on the impact of FDI on average wage from the perspective of generalized virtual economy. This paper sets the study interval in 2004-2016. With reference to the research of Zhao et al. (2014)[4] on the attribution of generalized virtual economy industry, in the Industrial classification for national economic activities, H (accommodation and catering), I (information transmission, software and information technology Services), J (Financial Industry), L (Leasing and business services), M (Scientific research and technology Services), N (Water Conservancy, environment and public facilities management), O (residential services, repairs and their He services), P (Education), Q (Health and social work) and r (culture, sports and Entertainment) 10 industries are classified as generalized virtual economy industries. In this paper, we use the average wages in the 10 industries (W) and the actual use of foreign direct investment (FDI) for quantitative analysis. In order to eliminate the heteroscedasticity in the paper, we will use the logarithm of FDI and W, that is Lnfdi and Lnw. The data used in this paper are calculated on the basis of the relevant data and the relevant years from "China Statistical Yearbook".

3.1 Unit Root Test of Time Series

In order to avoid the possible existence of "spurious regression", the Eviews6.0 software is used to carry out the ADF unit root test of the time series. According to table 1, According to table 1, Lnfdi and Lnw rejected the original hypothesis of "existing unit root" at a significant level of 1%. the Lnfdi and Lnw are smooth time series.

Table 1.ADF Test Result

Variable	ADF	1%level	5%level	10%level	Unit root
Lnfdi	-5.444894	-5.295384	-4.008157	-3.460791	non-existent
Lnw	-4.690848	-4.297073	-3.212696	-2.747676	non-existent

3.2 Cointegration Analysis

In order to find whether there is a cointegration relationship between variables, considering that the model has only two variables, the Engel-Granger method with two variables is used in this paper. The step is to regress the variables first, and then test the stability of its residuals, if the residuals are stable, then there is a cointegration relationship between the two variables, if the residuals are not smooth, then there is no cointegration relationship between the two variables. With the help of Eviews6.0 software, the results are shown in table 2.

Table 2. Engel-Grange Test Result

Variable	ADF	1%level	5%level	10%level	Unit root
e	-2.726890	-2.792154	-1.977738	-1.602074	non-existent

From the table results, it is shown that the residual is I (0), which shows that there is a long-term stable equilibrium relationship between Lnw and Lnfdi.

3.3 Regression Analysis

Select Lnfdi as the explanatory variable, Lnw as the interpreted variable, using the Eviews6.0 software for OLS regression. The results are as shown in table 3.

From the results of regression estimation, we can find that the coefficient of determination is 0.9325, which means the model fits well. From the t-test value of the slope term, the slope has passed the 1% significance level test, which shows that every 1% increase in foreign direct investment (FDI) in the generalized virtual economy will lead to the average wage level of workers increased by 0.880179%.

Table 3.OLS Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-11.73201	1.814305	-6.466395	0.0000
LNFDI	0.880179	0.071407	12.32628	0.0000

R-squared	0.932489	Mean dependent var	10.62696
Adjusted R-squared	0.926352	S.D. dependent var	0.491970
S.E. of regression	0.133512	Akaike info criterion	-1.048618
Sum squared resid	0.196079	Schwarz criterion	-0.961703
Log likelihood	8.816018	Hannan-Quinn criter.	-1.066483
F-statistic	151.9372	Durbin-Watson stat	0.651641
Prob(F-statistic)	0.000000		

$$Lnw = -11.73201 + 0.880179LNFDI \tag{1}$$

$$t = (-6.466395)(12.32828) \tag{2}$$

$$R^2 = 0.932489 \tag{3}$$

4. Policy Recommendations

Generally speaking, FDI in the generalized virtual economic sector can directly promote the increase of the average wage of workers in related departments in China. For every 1% increase of FDI in generalized virtual economy industry, the average wage level of workers increased by 0.880179%, and the effect of promotion was remarkable. Therefore, in order to improve the current employment situation, we must focus on the development of China's generalized virtual economic industry and actively attract foreign investment to constantly meet the growing spiritual needs of people,which can, in the long run, promote the increase of the number of employment in China, the optimization of the employment structure and the improvement of quality.

References

[1]. Yanfei Wang, Guoping Zeng, “FDI, employment structure and industrial structure change”, World Economy Study, 2006(07):51-57.

[2]. Hong Liu, Shusheng Li, “Research on the impact of FDI on China's economic growth and Employment -- Based on VAR model”, Journal of International Trade, 2013(04):105-114.

[3]. Jinsheng Zhu, Honghui Xu, Chao Yang, “Relationship and Mechanism between Generalized Virtual Economic Development and Employment Growth”, Journal of Yunnan University of Nationalities (Social Sciences), 2013,30(03):82-88.

[4]. Hongjiang Zhao, “Industry Classification, Historical Evolutionand Development Prospects of the Generalized Virtual Economy in China”, Research on the Generalized Virtual Economy, 2014,5(01):52-59.