Academic Journal of Business & Management
ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

Research on the Impact of RMB Exchange Rate Fluctuation on Employment in my country

Yuan Fang

School of Economics, Anhui University of Finance and Economics, Anhui Bengbu, 233000

Abstract. *Stabilizing employment is the first of the "six stability" policies. Under the complex and volatile background of the current international economic situation, this article uses a nonlinear smooth conversion regression model to study the impact of the RMB exchange rate level and uncertainty (volatility) on employment in my country. Research shows that the RMB exchange rate level and its fluctuations have a nonlinear effect on the overall employment in my country, showing a segmented feature. The impact of the RMB exchange rate on employment growth is rapidly changing between linear and nonlinear; the RMB exchange rate level and its volatility the impact on employment is closely related to the fluctuation of RMB exchange rate. With the increase of RMB exchange rate volatility, the non-linear impact of RMB exchange rate and its volatility on employment in our country is very significant.*

Keywords: *RMB exchange rate; Exchange rate fluctuation; Employment; Nonlinearity*

1. Introduction and Literature Review

Employment is the biggest livelihood of the people and the top priority of economic development. At present, the international situation is complex and changeable, and employment stability must be placed in a more prominent position. On August 5, 2019, the RMB exchange rate fell below the 7.0 mark, refreshing the lowest exchange rate of RMB against the U.S. dollar since 2008, and showing a continued downward trend. The violent fluctuation of the RMB exchange rate will have a huge impact on China's foreign trade, which will seriously affect my country's employment market. This article empirically investigates the level of the RMB exchange rate and its uncertainty (volatility) on the non-linear impact of employment in my country, so as to provide a theoretical basis for decision-making departments to formulate scientific and reasonable employment policies.

Regarding the impact of changes in the exchange rate level on employment, at the macro level, scholars' research based on country-level data shows that a

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

country's currency appreciation will lead to an increase in unemployment. [1-2]The research of some scholars shows that the impact of exchange rate appreciation on employment has different conclusions in different periods. [3]At the industry level, studies have shown that changes in the real exchange rate have a significant inhibitory effect on employment levels in different industries. [4-8]At the enterprise level, Nucci and Pozzolo (2010) pointed out that the impact of exchange rate changes at the enterprise level on employment is very significant. [9]Dai Mi et al. (2013) constructed an enterprise-level foreign exchange risk exposure index. The results of the study found that the exchange rate mainly affects employment through export revenue channels, import cost channels and import competition channels. [10]Kaiser and Siegenthaler (2016) believe that a country's currency appreciation has a small impact on skilled labor, but has a significant crowding out effect on unskilled labor. [11]The research of Tie Ying and Liu Qiren (2018) shows that the appreciation of RMB through export income channels will lead to a decline in the proportion of skilled labor employment, while the proportion of skilled labor employment through the import of intermediate goods will increase[12].

Regarding the impact of exchange rate fluctuations on employment, Sha Wenbing (2009) based on a panel data model in eastern my country found that the RMB exchange rate has a significant negative impact on employment in my country, but exchange rate volatility has a more negative impact on employment. small. [13]Zmami and Salha (2015) studied the impact of exchange rate on employment from 1997 to 2002 based on the panel data of Tunisian manufacturing companies, using different volatility measures to prove that exchange rate fluctuations significantly reduced the employment level of various companies[14].

It can be seen that domestic and foreign research is carried out from different levels and perspectives, but in some aspects it is still worthy of in-depth discussion. First, the relevant research mainly focuses on the relationship between exchange rate level and employment, and less discussion on exchange rate volatility (uncertainty) The impact of employment; secondly, the study mainly focuses on the linear relationship between exchange rate and employment, and the non-linear relationship between the two is less involved. Therefore, this paper uses the Smooth Transformation Regression (STR) model to simultaneously investigate the non-linear effects of the RMB exchange rate level and exchange rate volatility on employment shocks in my country, in order to more accurately describe the subtle and complex internal links between variables.

2. Analysis on the Mechanism and Channels of Exchange Rate Changes Affecting Employment

Exchange rate changes mainly affect employment through channels such as exports, raw material imports, foreign direct investment, and industrial structure. The specific manifestations are:

(1) Export channels

Changes in the exchange rate will cause changes in the relative prices of

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

domestic products and reduce the international competitiveness of products. When the renminbi appreciates, the relative price of domestic products increases, which reduces their international competitiveness, which in turn affects the export volume of the product and related industries, thereby reducing the demand for labor in the industry. Exchange rate changes affect employment through product export channels. The product's international market structure is related to the impact of what we usually call pricing power and demand elasticity. If the company's products have strong pricing power in the international market, the company can actively adjust product pricing to slow down the impact of exchange rate changes on the prices of related products, thereby reducing product demand changes, and ultimately slowing down the impact of exchange rate changes on employment the goal of.

(2) Import of raw materials

The exchange rate adjustment will also change the price of imported raw materials needed by the company during the production process, affecting the demand and supply of the company's products, and then affecting the company's demand for labor. In capital-intensive industries in industrialized countries, both labor factors and imported non-labor factors will have complementary effects; in developing countries with a low degree of industrialization, most of them are labor-intensive industries. It is the mutual substitution relationship. Therefore, we can think that the employment effect of the transmission mechanism cannot be clearly defined and divided theoretically.

(3) Foreign direct investment channels

Exchange rate changes often affect foreign investment in three ways: one is to change the production cost of foreign investors and then affect foreign direct investment. When a country's currency appreciates, its domestic commodity and labor prices rise relative to those of foreign countries. Due to the increase in relative prices, the cost of foreign investors' investment in the country rises, and the rate of return on investment decreases, thereby transferring capital to a higher rate of return on investment. Countries, leading to a decline in foreign direct investment in the country. The second is to influence foreign direct investment through its influence on the wealth of foreign investors. When a country's currency appreciates, the same amount of foreign exchange assets will be converted into currency assets, which will lead to a decline in the wealth of foreign investors, thereby reducing their investment willingness. The third is to influence foreign direct investment by influencing export substitution. The appreciation of a country's currency will cause the disappearance of the export price advantage of domestic products, and enterprises will adjust their layout on a global scale and transfer foreign investment to countries with comparative price advantages, which will lead to a decrease in foreign direct investment. The decline in foreign direct investment will have a huge impact on employment.

(4) Industrial structure channels

The international competitive advantage of my country's export industry mainly depends on its relative advantage in labor costs, and the appreciation of my country's

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

currency will affect the industrial layout, make the original labor-intensive industries lose their comparative advantages, and force labor-intensive industries to gradually shift to Capital-intensive industries, which in turn leads to a reduction in the overall demand for labor

Therefore, through the analysis of the influence path of the exchange rate on employment, we can get the theoretical hypothesis studied in this article: the domestic currency exchange rate is negatively correlated with employment.

3. Empirical Research

(1) Measurement Model and Data Description

In order to characterize the impact of RMB exchange rate level and its uncertainty (volatility) on employment in our country, this paper establishes a model that reflects the relationship between employment and exchange rate levels and exchange rate volatility. In order to ensure the accuracy of the model estimation, drawing on the analytical frameworks of Dekle (1998), Campa and Goldberg (2001) and Sha Wenbing (2009), [4-5][13]This article selects domestic total demand, export share and wages. An important factor affecting employment is used as a control variable, which is specifically expressed as follows:

$$\ln emp_t = \gamma_0 + \gamma_1 \ln reer_t + \gamma_2 \ln gdp_t + \gamma_3 \exp ort_t + \gamma_4 reervol_t + \gamma_5 \ln wage_t + \mu_t \quad (1)$$

In formula (1), the subscript *t* represents the year, and employment(emp): selects the total number of employees in China at the end of the year as a measure of employment; real effective exchange rate(reer): adopts a value that can fully reflect the real value of the renminbi to the outside world The RMB Real Effective Exchange Rate Index measures the changes in the RMB exchange rate. The increase in the index represents the appreciation of the RMB. The data is derived from the IMF's IFS statistics; the volatility of the RMB real effective exchange rate(reervol): Reference Zhang Jing and Wang Shouyang(2005), Sha Wenbing(2009) method,[15][13]defines the annual volatility of the real effective exchange rate as the square sum of the percentage change of the real effective exchange rate index in each quarter of each year; domestic demand(gdp): in order to accurately reflect the actual changes in GDP , This article uses the GDP index to convert the actual GDP to measure China's total domestic demand; export share (export): uses the export share to represent China's degree of opening up, and selects the proportion of China's total export trade to GDP over the years to measure the changes in opening up; wages (wage): The average wage of employees is used to measure the changes in China's wage level, and the data is adjusted through the CPI index. The data interval is from 1981 to 2018, and the data comes from the wind database. Before the empirical analysis, the employment volume, the real effective exchange rate of RMB, gdp and wages are processed logarithmically.

(2) Unit Root Test

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

Since time series data modeling is prone to pseudo-regression problems, this paper uses ADF test and PP test to perform unit root test on the variable sequence before constructing the STR model. First, perform unit root tests on the level value sequences of variables *lnemp*, *lnreer*, *reervol*, *lngdp*, *export*, and *lnwage*. The test results show that at the 5% significance level, the level series of the 6 variables are at the 5% significance level. The bottom is uneven. Further inspection shows that the variable sequence *Δlnemp*, *Δlnreer*, *Δreervol*, *Δlngdp*, *Δexport* and *Δlnwage* after the first-order difference are all stationary sequences. Therefore, the following article will conduct empirical analysis based on the stationary series of variables (note: limited by space limitation, unit root test is not listed).

(3) Estimation results and analysis of STR model

According to the modeling steps of the STR model, [16-18]this article first follows the AIC later selection criteria, and the linear part of the model needs to be determined before the nonlinear test of the model. According to the selection criteria of the AIC lag period, this paper determines the lag order of the linear part as 4, and then gradually eliminates insignificant variables to obtain the linear part of the model.

Next, select the transformation variable to test the linear hypothesis of the model, and determine the optimal transformation variable and transformation function form according to the size of the accompanying probability of each statistic. The results are shown in Table 1.

Table 1 Linear hypothesis test and the result of the selection of the transfer function form

Conversion variable	F	F4	F3	F2	Model Form
$\Delta \ln reer$	1.28E-05	6.08E-01	1.11E-05	1.42E-08	LSTR1
$\Delta reervol$	9.53E-07	4.10E-03	3.38E-01	8.75E-12	LSTR1
$\Delta \ln wage$	1.12E-02	2.83E-02	4.25E-01	3.41E-03	LSTR1
$\Delta \ln reer(-1)$	5.83E-06	1.10E-02	8.14E-01	2.68E-03	LSTR2
$\Delta \ln wage(-1)$	1.17E-04	3.19E-02	7.91E-01	2.24E-09	LSTR1
$TERND$	4.99E-03	6.67E-02	2.97E-03	6.26E-03	LSTR2

It can be seen from Table 1 that when *Δlnreer*, *Δreervol*, *Δlnwage*, *Δlnreer(-1)*, *Δlnwage(-1)*, and *TREND* are used as the conversion variables, the model has a non-linear functional relationship, which fully illustrates the relationship between the RMB exchange rate and my country's employment There are many possible non-linear relationships. When *Δreervol* is selected as the conversion variable, the concomitant probability of accepting the linear hypothesis is the smallest. According to the basic principle of sequential testing, this paper selects *Δreervol* as the conversion variable, and the specific form of the corresponding STR model is LSTR1.

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

Considering that the setting of the initial values of the parameters will have a greater impact on the estimation results of the smooth conversion regression model. First, this paper uses the two-dimensional grid point search method to obtain the initial values of the model parameters, and then, based on the nonlinear estimation method Newton-Raphson iterative algorithm to calculate the parameter estimates of the LSTR1 model, and then eliminate the insignificant variables one by one, and finally get LSTR1 The model estimation results are shown in Table 2.

Table 2 LSTR1 model estimation results

	Variable	Initial Value	Estimated Value	ST.D	T	P
Linear Part	$CONST$	-0.00478	-0.01081	0.0022	-4.8629	0.0001
	$\Delta \ln emp(-3)$	0.06748	0.0404	0.0216	1.8728	0.0758
	$\Delta \ln emp(-4)$	0.55387	0.68193	0.0864	7.8913	0
	$\Delta \ln gdp$	0.06182	0.11963	0.0214	5.6028	0
Non-linear part	$CONST$	-0.13805	-0.15063	0.0143	-10.5435	0
	$\Delta \ln gdp$	1.98868	2.33681	0.2204	10.6034	0
	$\Delta \ln reer$	-0.2744	-0.31835	0.0233	-13.6616	0
	$\Delta \ln reer(-1)$	0.31002	0.22628	0.0699	3.2354	0.0041
	$\Delta reervol$	-1.81201	-2.55886	0.353	-7.2497	0
	$\Delta \exp ort(-1)$	0.14604	1.4169	0.9589	1.4776	0.1551
	$\Delta \ln wage(-1)$	-0.47038	-0.6417	0.1187	-5.4081	0
	γ	8.13343	25.13487	7.6969	3.2656	0.0039
	C	0.00958	0.00626	0.0005	12.5095	0
AIC	-11.731		**SC**	-11.142		
HQ	-11.533		**R^2**	0.89479		
$\overline{R^2}$	0.8949					

From Table 2, the specific form of the LSTR1 model available is:

$$\begin{aligned}\Delta \ln emp &= -0.01081 + 0.04040\Delta \ln emp(-3) + 0.68193\Delta \ln emp(-4) \\ &+0.11963\Delta \ln gdp + G(\gamma, c, \Delta reervol) \times (-0.15063 + 2.33681\Delta \ln gdp \\ &-0.31835\Delta \ln reer + 0.22628\Delta \ln reer(-1) - 2.55886\Delta reervol \\ &+1.41690\Delta \exp ort(-1) - 0.64170\Delta \ln wage(-1))\end{aligned} \quad (2)$$

Among them,

$$G(\gamma, c, \Delta reervol) = [1 + \exp(-25.13487\Delta reervol - 0.00626)] - 1$$

(4) Robustness Test

The main test statistics of the model are as follows:

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

ARCH-LM=6.5783(P=0.5827), F-LM=1.1159(P=0.4032), JB=0.0862(P=0.9578)

It can be seen that at a significance level of 1%, the residual sequence of the LSTR1 model does not have heteroscedasticity and satisfies the normality assumption. This paper further conducts residual nonlinearity test on the estimated model to determine whether the nonlinear component of the relationship between the RMB exchange rate and my country's employment has been fully extracted. The results are shown in Table 3.

Table 3 Residual nonlinearity test

Conversion variable	F	F4	F3	F2
$\Delta reervol$	9.30E-01	8.09E-01	8.90E-01	1.27E-01

It can be seen from Table 3 that the P value of the F test is 0.93044, and the model has no residual nonlinearity at the 1% significance level. Therefore, the LSTR1 model estimated in this paper can better extract the RMB exchange rate level and its volatility Non-linear relationship with employment.

(5) Empirical result analysis

According to the linear part of equation (2), we can see:

First, each unit change of *Δlnemp(-3)* and *Δlnemp(-4)* makes *Δlnemp* change 0.0404 and 0.68193 units in the same direction, respectively, indicating that the employment growth of the lag three and four lags has a significant promotion effect on the current employment growth. It shows that there is a certain inertia in employment in our country, and the force is strong. The empirical results are consistent with traditional economic theories. The demand for labor is closely related to the expectation of the production enterprise on the future market prospects. If the enterprise's early economic benefits are good, it will increase the input of labor and other production factors, which will increase the employment. In the past 30 years, China's economy has maintained a rapid growth trend. Therefore, production companies are more optimistic about the early stage of my country's economic development. Therefore, the job market has strong inertia.

Secondly, every change of *Δlngdp* makes *Δlnemp* change 0.11963 units in the same direction, indicating that the current domestic demand growth has a significant positive effect on employment growth, indicating that the increase in domestic demand has promoted my country's overall employment level to maintain a rapid upward trend.

It can be seen from equation (2) that the nonlinear part of the LSTR1 model is composed of the multiplication term of the transfer function and the regression term.

For the non-linear part of the transfer function, the transfer function G(γ, c, *Δreervol*) is an increasing function of the conversion variable *Δreervol*. As the value of the transfer function increases, the nonlinear part of the model has a greater impact on my country's employment . The estimation results of the LSTR1 model show that the level and volatility of the RMB exchange rate have different effects on

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

employment in our country due to differences in exchange rate volatility changes, showing non-linear characteristics. The threshold value C=0.00626 estimated in this paper. When the conversion variable is less than 0.00626, the value of the transfer function is small, which in turn causes the nonlinear part of the model to have a small impact on China's employment, and as the conversion variable becomes smaller, the transfer function will tend to 0, the impact of the non-linear part on employment in our country disappears; when the conversion variable is greater than 0.00626, the value of the transfer function continues to increase (towards 1), which in turn causes the impact of the non-linear part on employment in our country to become greater; when the conversion variable is at When near the threshold, the model smoothly transitions between linear and nonlinear. The smoothing parameter of the model is large (γ=25.13487), which indicates that the transition speed of the model from the linear state to the nonlinear state is faster.

For the regression term of the nonlinear part in equation (2):

First of all, every change of *Δlngdp* causes *Δlnemp* to change 2.33681 units in the same direction, that is, the growth of total domestic demand in the current period has a greater positive impact on my country's overall employment growth. Integrating the linear part and the nonlinear part of the current domestic aggregate demand on the overall employment can be obtained, the linear part and the nonlinear part of the current domestic aggregate demand growth in the current period of the impact of the employment growth coefficient is 2.45644 (that is, 2.33681 + 0.11963, the value is converted Obtained when the function value is 1). Obviously, the growth of total domestic demand has an important impact on my country's employment growth, and the model estimation results are consistent with my country's economic reality. Since 1981, my country's economic growth has been maintained at a relatively fast level, and economic growth has greatly promoted the increase of my country's employment level, indicating that the overall employment in my country at this stage is mainly determined by domestic economic factors. It also shows that when drastic changes in the external economic environment lead to a significant increase in exchange rate volatility, more attention should be paid to increasing domestic aggregate demand to ensure that employment remains at a high level.

Secondly, a change in *Δlnreer* by one unit will make *Δlnemp* reversely change by 0.31835 units, indicating that the current appreciation of the RMB will inhibit employment growth in my country. The reasons are: First, as a country with obvious export-oriented economic characteristics, my country's economic development relies heavily on external demand. The appreciation of the renminbi will severely weaken the competitiveness of enterprises' export products, and then have a greater inhibitory effect on my country's employment. Since my country joined the WTO in 2001, after more than ten years of development, my country's import and export trade exceeded 30 trillion yuan for the first time in 2018, and it continues to maintain the world's number one position. Therefore, the risk of exchange rate fluctuations can easily affect all levels of my country's economy. This will further affect our country’s job market. Second, in recent years, my country's export product structure and technology level have continued to optimize, but labor-intensive products still account for a certain proportion. At the same time, compared with

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

developed countries, the technology level of my country's export products is still low, and export companies face the appreciation of the RMB Only passively reduce the scale of production, which in turn leads to a decline in employment. Third, the appreciation of the renminbi increases the cost of capital inflow, which is not conducive to the inflow of foreign direct investment, weakens the ability of enterprises to create employment, and has a certain inhibitory effect on employment.

At the same time, a change in $\Delta lnreer(-1)$ by one unit will make $\Delta lnemp$ change in the same direction by 0.22628 units, indicating that a lagging period of RMB exchange rate appreciation will promote employment growth. The possible reasons are: First, the appreciation of the renminbi will lead to the reallocation of resources and promote employment growth. The specific manifestation is that after the appreciation of the renminbi, due to the consideration of factors such as maintaining international market share and fierce competition for homogeneous products, export manufacturers It tends to digest the part of the appreciation of the domestic currency by itself, so that the appreciation of the RMB exchange rate transmits less to export prices. At this time, the price of domestic export trade goods priced in RMB will drop, and cause the domestic sales price of domestic trade goods to drop, while the price of domestic non-trade goods will rise relatively, making the production of domestic non-trade goods more profitable. Under the effect of the market economy price mechanism, a large amount of resources will flow from the trade sector to the domestic non-trade sector. In the domestic non-trade sector, the service industry accounts for much more than the manufacturing industry. Therefore, the service industry sector will get more resources and continue to grow. In general, the income elasticity of employment in the service industry is higher than that in the manufacturing industry. Therefore, the appreciation of the renminbi has shown a positive effect on overall employment. Second, the appreciation of the renminbi will increase employment in high-tech sectors. The appreciation of the renminbi enables domestic enterprises to purchase advanced foreign technology and equipment at relatively low prices, which is conducive to improving the technical level of export products and enhancing product competitiveness. In the face of the appreciation of the renminbi, output still maintains rapid growth and higher profit margins. Therefore, the appreciation of the renminbi will promote employment in my country's high-tech sectors.

Combined with model (2), the long-term impact coefficient of the change in the RMB exchange rate can be calculated. When the conversion function G=1 (the conversion variable exceeds the threshold), the long-term impact coefficient is -0.331581. It can be seen that the appreciation of the RMB exchange rate has a significant effect on employment growth in my country. Inhibition. In addition, the empirical results also show that the impact of RMB appreciation on employment growth in my country is first manifested as a restraining effect, and after a year of adjustment, it is manifested as a creative effect. This shows that in the face of RMB appreciation, decision-making departments need a certain amount of time to adjust, formulate relevant policies and measures to promote the recovery and development of the employment market, and weaken the inhibitory effect of RMB appreciation on employment.

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

Furthermore, every change in *Δreervol* will cause a reverse change of *Δlnemp* by 2.55886 units, that is, the expansion of the current renminbi exchange rate volatility has a significant negative impact on my country's overall employment growth, that is, an increase in exchange rate volatility will inhibit overall employment growth. An empirical result fully reflects the status quo of my country's export enterprises and financial markets. The main reason is that, first of all, when the exchange rate fluctuates sharply faced by export companies, they cannot accurately judge the prospects of future production and operation, which can easily lead to confusion in the production and investment decisions of the company, especially for the input of production factors such as labor demand. Such judgments will have a greater adverse effect. Secondly, there are a large number of small, medium and micro enterprises in my country's export enterprises. Due to the difficulty of financing and the constraints of expensive financing, export enterprises that have entered the era of "low profit" will not be able to obtain credit support in time when faced with large fluctuations in the RMB exchange rate. Withstand the huge impact of exchange rate fluctuations, leading to increased operating risks and costs, which in turn affects the domestic job market. The research of Xu Yuan and Yu Yongze (2016) also shows that my country's financial development can effectively weaken the negative impact of exchange rate fluctuations on domestic enterprises. [19]The continuous improvement and development of the financial system can effectively alleviate the financing constraints of my country's export enterprises, especially small and medium-sized private enterprises, so that they can make full use of various financial tools in the financial market to adjust production plans and resist exchange rate fluctuations. Short-term liquidity shocks keep the domestic job market stable. From the perspective of the reform of the RMB exchange rate system, the RMB exchange rate has been relatively stable since 1994, and the labor demand of Chinese enterprises is relatively less affected by exchange rate volatility. However, with the implementation of the "811 Exchange Rate Reform" on August 11, 2015, the RMB exchange rate flexibility has continued to increase in recent years, companies have to face the risk of exchange rate fluctuations, and the impact of exchange rate volatility on employment will also increase.

In addition, *Δexport(-1)* in the nonlinear partial regression term has a significant positive effect on *Δlnemp*, indicating that the expansion of my country's export scale will promote the increase of employment. The reason is that with the increase in external demand and the expansion of the export scale of enterprises, in order to obtain higher profits, enterprises will expand the scale of production, so the demand for labor will increase. But the estimated result is not significant at the 5% significance level.

Finally, every unit change in *Δlnwage(-1)* will make *Δlnemp* reversely change by 0.64170 units, that is, the lagging wage growth has a significant negative impact on my country's employment growth. The main reason is that the wages in the production cost of enterprises are important part. When the wage level increases, the production cost of the enterprise will increase significantly, at this time the enterprise will often reduce the demand for labor. Especially considering the actual situation of our country at this stage, a large number of Chinese enterprises are in the

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

middle and lower reaches of the division of labor in the international industrial chain. Rising wages will severely erode the profits of enterprises, and even make serious losses. As a result, my country's employment market will be greatly affected.

It can be seen that changes in the RMB exchange rate have an important impact on my country's employment growth, but the intensity of the impact is closely related to the current exchange rate volatility. When the fluctuation of the RMB exchange rate is relatively flat, the impact of the RMB exchange rate and its volatility on employment is small and approximately linear; but when the fluctuation of the exchange rate increases, the RMB exchange rate and its volatility have a greater impact on employment and it appears as a non-linear influence. The RMB exchange rate and its volatility mainly have a negative impact on employment in my country. That is to say, the appreciation of the RMB exchange rate and the increase in its volatility have a significant inhibitory effect on employment in my country. At the same time, considering the large value of the smoothing parameter of the model, my country's employment is affected by the change of the RMB exchange rate, showing a rapid conversion between linear and nonlinear.

4. Conclusions and Policy Recommendations

Summarizing the full text, we can get the following conclusions: The RMB exchange rate level and its fluctuations have a non-linear effect on China's overall employment, showing a segmented characteristic; the RMB exchange rate level and its volatility have effects on employment and exchange rate fluctuations. It is closely related. When the exchange rate fluctuation rate exceeds the threshold value, the impact of the RMB exchange rate on employment growth shows nonlinear characteristics. At this time, the RMB exchange rate level and its volatility have a significant inhibitory effect on employment growth; and when the exchange rate fluctuates When the rate change is below the threshold, the impact of the RMB exchange rate on employment growth is not obvious. For the linear part of the model, first, the employment growth of the lagging three and four lagging periods has a clear driving effect on the current employment growth, indicating that there is a certain inertia in China's employment, and the force is strong; second, the domestic The growth of aggregate demand has a positive role in promoting employment growth in our country, indicating that the increase in domestic demand is conducive to the steady and rapid rise of employment in our country. For the nonlinear part of the model, first, the current domestic aggregate demand growth has a significant positive impact on my country's overall employment growth. Combining the linear part and the nonlinear part of the current domestic aggregate demand growth has an impact on the overall employment growth, it can be seen that domestic The growth of aggregate demand has an important impact on my country’s employment growth. Second, the current and lagging period of RMB exchange rate appreciation has opposite effects on my country’s employment growth, which fully reflects the duality of the RMB exchange rate on my country’s overall employment. In the long run, the exchange rate appreciation has a restraining effect on my country's employment growth; third, the increase in the renminbi exchange rate has a

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

significant negative impact on my country's employment growth; fourth, the lagging export share change has a positive effect on my country's employment growth. The positive impact, that is, the increase in the scale of exports is conducive to the promotion of China's employment level; fifth, the lagging wage growth has a significant negative impact on my country's overall employment growth. For the transfer function of the model, the smoothing parameter of the model is larger, which shows that the adjustment speed of the nonlinear part of the model is faster. The transfer function increases with the increase in the volatility of the RMB exchange rate, and the influence of the nonlinear part of the model is quickly reflected as the transfer function increases, especially when the conversion variable exceeds the threshold value, the nonlinear part of the model will become more Presented quickly.

The policy recommendations of this article are: First, the decision-making authority should pay close attention to the threshold value of the impact of the RMB exchange rate on employment, and actively avoid the risk of exchange rate fluctuations. Continuously improve financial derivatives including foreign exchange forward transactions, foreign exchange futures and options transactions, and foreign exchange swaps. In view of the increasing flexibility of the RMB exchange rate, the risk of exchange rate fluctuations will be the main source of risk in my country's employment market. Actively learn from the mature financial market experience of developed countries, master how to use different financial tools and methods to avoid the risk of exchange rate fluctuations, and weaken the impact of exchange rate fluctuations on the job market; second, promote the optimization and upgrading of the industrial structure. Through the "Belt and Road" to increase opening up and investment, improve the status of Chinese enterprises in the division of labor in the global value chain, accelerate the development of my country's high-tech industries, improve the technical level of export products, and enhance the ability of my country's exports to resist external exchange rate shocks; third , Formulate policies and measures to encourage residents to consume and increase infrastructure construction to increase domestic demand. Empirical research shows that total domestic demand has a very significant role in promoting employment. Therefore, we should focus on domestic economic construction, mainly to promote residents' consumption and increase infrastructure construction, strengthen our own economic strength, and reduce the adverse impact of exchange rate appreciation on domestic employment through our own development. Fourth, actively use various monetary policy tools to alleviate expectations of RMB appreciation, and reduce the negative impact of RMB appreciation on my country's employment by adopting gradual appreciation.

References

[1] Yu Qiao, on the conflict and coordination between my country's exchange rate policy and domestic economic goals[J]. Economic Research, 2009, (07): 23-32.

[2] Frenkel,R..Real Exchange and Employment in Argentina,Brazil,Chile and Mexico[R].Paper prepared for the Group of 24,Washington,D.C.September.2004.

ISSN 2616-5902 Vol. 2, Issue 6: 87-99, DOI: 10.25236/AJBM.2020.020612

[3] Wan Jieqiu, Xu Tao. The impact of exchange rate adjustments on China's employment: a study based on theory and experience [J]. Economic Research, 2004, (02): 39- 46.
[4] Dekle,R.,The Yen and Japanese Manufacturing Employment[J].Journal of International Money and Finance,1998,17(07):85-801.
[5] Campa,J.,and L.Goldberg,Employment versus Wage Adjustment and the U.S.Dollar[J].Review of Economic s and Statistics,2001,83 (03) :477-489.
[6] Klein,M.W.,S.Schuh,and R.K.Triest,Job Creation,Job Destruction and the Real Exchange Rate[J].Journal of International Economics,2003,Vol.59,239-265.
[7] Moser,C.,D.Urban,and BDMauro.International Competitiveness,Job Creation and Job Destruction-An Establishment Level Study of Germany Job Flows[J].Journal of International Economics,2010,80 (02) :302 -317.
[8] Mao Risheng. How does the change in the real exchange rate of the RMB affect employment in the industrial sector? [J]. Economic Research, 2013, (03): 56-69.
[9] Nucci F.and A.F.Pozzolo,The Exchange Rate,Employment and Hours:What Firm-level Data Say[J].Journal of International Economics,2010,82(02):112-123.
[10] Dai Mi, Xu Jianwei, Shi Bingzhan. The impact of RMB exchange rate and manufacturing employment: empirical evidence from corporate data[J]. Management World, 2013, (11): 14-27.
[11] Kaiser,B.and M.Siegenthaler.The Skill-biased Effects of Exchange Rate Fluctuations[J].The Economic Journal,2016,126(592):756-780.
[12] Tie Ying, Liu Qiren. Changes in the RMB exchange rate and the effect of labor skill bias: Evidence from Chinese micro-enterprises [J]. Financial Research, 2018, (01): 53-66.
[13] Sha Wenbing, The impact of RMB real effective exchange rate and volatility on employment——An empirical analysis based on panel data in the eastern region[J]. World Economic Research, 2009, (04): 20-24.
[14] Zmami.M.,and O.Salha,Exchange rate movements and manufacturing employment in Tunisia:Do different categories of firms react similarly?[J]. Economic Change and Restructuring,2015,48(02):137-167.
[15] Zhang Jing, Wang Shouyang. The equilibrium exchange rate of RMB and China's foreign trade[M]. Beijing: Higher Education Press, 2005.
[16] Granger,C.W.J,Teräsvirta,T.O.Modeling Nonlinear EconomicRelationships[M]. Oxford:Oxford University Press,1993.
[17] Lütkepohl, H.Krtzig, M.Applied Time Series Econometrics[M]. London: Cambridge University Press,2004.
[18] Dijk,D.V, Tersvirta,T.Philip Hans Franses.Smooth Transition Autoregressive Models-A Survey of Recent Developments [J],Econometric Reviews,2002, 21(01): 1-47.
[19] Xu Yuan, Yu Yongze. The stabilizing effect of financial development when exchange rate fluctuations impact exports[J]. Economic Science, 2016, (06): 34-46.