Study on Influence of Trade Openness and Capital Flows on China's Labor Share Empirical Analysis based on Data from 1992 to 2012

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Abstract

After the reform and opening up, China gradually gets involved in the tide of global economy. International economic relation is increasingly close. Opening degree deepens constantly, but the proportion of China's labor income declines. Labor share changes will affect investment and consumption, thus affecting economic growth. The present China's economic growth rate slows down, and the economic structure is in transition period. Under the new normal condition, to explore the changes of labor income share itself, and the influence mechanism of economic globalization on the labor share have important practical significance. This article spreads out mainly from two aspects of trade openness and capital flows, makes a comprehensive survey of regional difference, the influence of the landmark event, and explains the possible influence path and influence way of economic globalization on China's labor share.

Keywords: Labor share; trade openness; capital flows; globalization

1. Introduction

There is a long history of research on distribution of elements. Although it rose and declined, never terminated. In recent years, the study of the functional distribution of income in academia rises again. In particular, some literatures put forward, the labor share in developed countries appeared a downward trend since 1990s, which causes the policy discussion, and the concern of the international organization and the press (Bond & Harding, 2011). Blanchard's (1996) study found that the capital share of the continental European countries began to rise from the early 1980s, but not obvious in the Anglo - Saxon countries. Poterba (1997) studied the elements share of the United States, and found that while not as obvious as Europe, America's labor share also appeared a small decline. Harrison (2002) found that the labor share of most European countries fell sharply since the 1970s. Guscina (2006) found that the labor share of 18 OECD countries fell by 5% from the late 1970 s to 2000. Many industrialized countries experienced loss of tens of thousands of jobs. The unemployment rate had reached the highest level ever (Smeeding & Thompson, 2010). In recent years, domestic scholars' study found that China's labor share showed the trend of decline. These happened under the background of economic globalization, along with the increasing trade openness due to economic globalization. Whether capital flows increase has negative effect on China's labor income share?

The universal law of labor share decline in most countries may reflect the structural change. When discussing the impacts of globalization on labor share, we should profoundly realize that it has positive impact on economic growth: a country has the competitive advantage of products and services specialization, making the productivity increase, so as to improve the living standards; International competition stabilizes inflation, and the free flow of capital reduces the investment interest rates; An open economy will stimulate innovation; Globalization makes resources with the efficient allocation in the worldwide (Globalization makes efficient resources allocation worldwide), so as to make the national income "cake" bigger.

For China, all aspects of the globalization not only promote the economic development, but also have important influence in the labor share of the first income distribution. So along with economic globalization, what is the influence of the increasing degree of trade openness, capital flows enhancement on China's labor income share? This article makes a comprehensive survey of the influences of regional differences, the landmark events, and explores the possible influence approaches and influence patterns of economic globalization on China's labor share. The structure of this paper is as follows: The next section presents literature review; Section 2 analysis the influence mechanism of trade openness and capital flows on China's labor share; Section 3 introduces the data used and the construction of econometric model; Section 4 is regression analysis; Conclusions are given in Section 5

2. Literature Review

The research of the impact of globalization on labor share mainly concentrates on developed countries, with less focus on developing countries. For the impact of the economic globalization on labor share, three different conclusions were drawn: The relationship between them is positive correlation, negative correlation, or not significant. Crotty, Epstein (1996) and Rodrik (1997) argued that globalization eroded the labor share, especially in European countries. Harrison (2002) analyzed the elements share and measured the relationship of the globalization indexes, such as trade share, currency crisis, overseas investment activities, and capital controls, etc. From the perspective of trade, Bruno Decreusey & Paul Maarek (2008) also got different analysis results that trade resulted in a decline in labor's share, or the influence of the trade was not significant, or it depends on the wage rigidity. From the perspective of the foreign direct investment, Bruno Decreusey & Paul Maarek thought that foreign investment resulted in the rising labor share, or the influence was not significant, or it showed U change. From the perspective of capital controls, Lee & Jayadev thought there was a negative linear correlation between openness of capital account and the labor share. It can be seen from their studies: the economic globalization has impact on labor share from different aspects. Due to the difference of resource, technical level, workforce, etc. between countries, the labor share shows differences with the changes of the opening-up.

There are fewer scholars in China to research on the influence of economic globalization on the labor share. Xiao Wenhe, Zhou Minghai (2010) argued that the transition of the trade pattern was the main reason of the labor share decline. In the mode of processing trade highly related to import and export, labor demand increase promoted the share of labor. In the Yangtze River delta region of export-oriented processing trade mode, the simultaneous decline of import penetration and labor's share is the direct result of reducing raw material cost and labor cost by enterprises. Zhou Shen and Yang Hongyan (2011) used the panel data of 21 subdivision industries from China's industrial sectors, by applying system GMM to analyze the influence of international trade on the labor share. The results showed that the international trade has a more significant effect on the increase of China's industrial sector labor share. From the perspective of the employment pressure, Jiang Lei and Zhang Yuan (2008) analyzed the influence mechanism of foreign trade on labor share. They thought export had a positive impact on our country labor share, while import had a negative effect. The reason may be that exports and imports of labor productivity and employment effect were different. Weng Jie and Zhou Li studied the change trend of labor share by using panel data of 36 industries from industrial sectors from 1997 to 2008. They thought the rise in foreign direct investment can lead to the decline in labor share, while the development of export trade helped to improve the labor share; Shao Min and Huang Jiuli (2010) argued that the decline in labor share due to the entering of foreign investment has fairly explanatory power, and the negative effect mainly came from its negative "wage spillover" effect; Yang Jun and Shao Hanhua (2009) took the proportion of imports and exports of GDP as an index to examine the impact of opening-up on labor share, and results showed that the effect is not significant.

It can be seen that there are more researches focus on the relationship between globalization and income distribution gap, and there are less scholars who take the globalization as the main factors influencing the labor share for research, generally on the basis of the research on the influence of domestic factors on labor income share, involving in some aspect of the economic globalization, such as import and export, foreign capital or the influence of financial development on labor income share. With the increasingly close international economic relations, the constant opening degree deepening, significant regional differences of China's economic development, the un-balanced development in east-central-west regions, and the significant changes of trade openness and capital flows in China before and after the accession to the WTO, this article argues that when exploring the influence of globalization elements on labor share, it is necessary to study the regional differences, and make a comprehensive analysis of the influences of the landmark events.

3. Influence mechanism analysis of trade openness and capital flows on China's labor share

3.1 Trade openness

From the perspective of globalization, globalization process expands open degree, and improves the trade flows and specialization level between countries. According to H-O model, trade makes the fields with competitive advantages more professional, and makes the factor returns to achieve equilibrium between countries. With the increased openness, countries with rich capital (industrialized nations) will be specialized in producing capital-intensive products. The return of labor will decline, and the labor share will decrease as the process of specialization. H-O model assumption: capital and labor are illiquid, and trade acts as the role of elements flow. Globalization makes this effect more significant. In addition, capital has more liquidity, and globalization will reduce the bargaining power of weak liquidity-labor. Although the trade union organization and job security policy can make the return lean to labor, their effect will be weakened. In the end, globalization could force them to adopt the labor-saving technology, thus further squeezing out the labor share.

3.2 Capital flows

International capital flow is mainly realized through foreign direct investment (FDI). The entry of foreign direct investment caused great impact on our country's labor market. There was effect of increasing employment, while there was also job loss and crowding out effect. Because the change of the employment situation is directly related to the change of the income level of workers, and affects the labor share. But when changing employment configuration, foreign direct investment also has an important contribution to China's economic growth. Whether comprehensive effect result is capital bias or working bias, the results of its role is to improve the labor share or reduce the labor share, which requires a combination of empirical analysis results to explain it better.

The change of labor share is the result of combined action by many factors. In the process of joining the globalization, there are also unique factors with an impact on labor share. For examples, the decline on labor share may be associated with a series of policies after China's reform and opening-up, including the export-oriented policy in the international trade, and land, tax, financial incentives in the investment promotion. Policy bias has a very strong market orientation effect, and affects the domestic market through industrial transition, element configuration, technology transfer and other mechanisms, and affects China's labor share. The industrial structure, ownership structure, the bargaining power of labor will influence our country's primary distribution. Accession to the WTO is an important landmark event of the comprehensive enhancement of China's opening degree. It has significant influence on the globalization of our country, and also has important influence on income distribution.

4. Econometric Model and Data

4.1 Labor share calculation

Based on the study of labor share calculation by Kuznets (1959) , Glyn (2009) , Gollin (2002) et al., this article adopts adjustment method proposed by Gollin. The method has been widely used in the literatures of many researches on industrialization countries, and adopted by the OECD and EC to be used for statistical computing. Specific method is that: assuming that an individual economy worker has the same labor remuneration with other workers, divide the income unambiguously belonging to workers by the number of non-individual economy workers to get the average labor remuneration, and then multiply the average labor remuneration by the total employment to get the total amount of labor remuneration including individual economy. Y_{UL} Represents labor remuneration of the non-individual economy. The employment of the individual economy is L_A, total employment L, total income Y, net taxes on production levied by the government YT, and labor income share is as follows:

Due to easy access to data, $$LS = \frac{Y_{UL} \times L(L - L_A)}{Y - Y_T}$$ especially for China that with more self-employment workers, this can estimate the actual value of labor share better. In this article, this method is used to calculate the labor share.
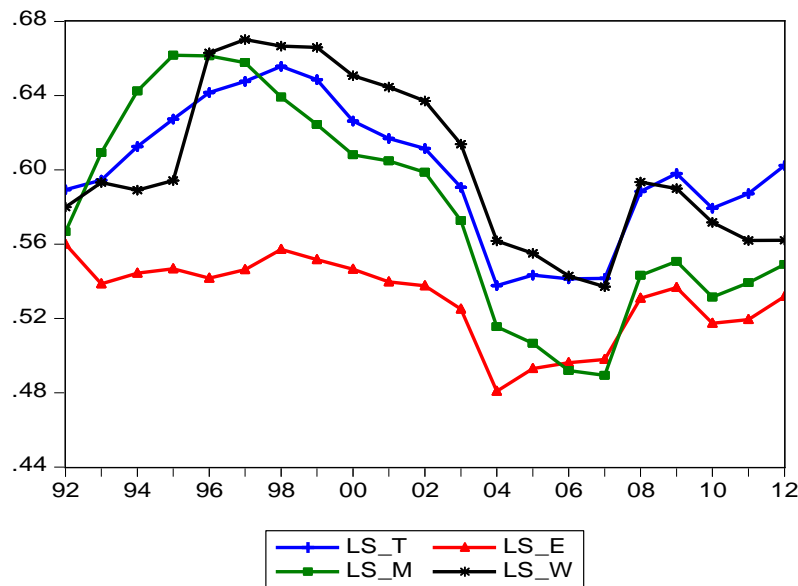
Figure 1

Figure 1 is the change table of China's labor share from 1992 to 2012. We can see from the table, China's labor share increased slightly from 1992 to 1998, the overall showed a downward trend after 1998, and recovered slightly after 2007. As a whole, the labor share showed a downward trend. From a regional view, the change range of labor share of the eastern region is small, large in the central and western regions, and labor share shows a decline trend in eastern, central, and western regions.

4.2 Model specification and index selection

This part, based on the data of 30 provinces in China, analyzes labor share decision factors, and focuses on the influences of trade openness, capital flows under the economic globalization. The selection of control variable is mainly based on the relevant theory, existing research, and China's reality. Through the above analysis, we build the model as follows:

Among them, the$\beta1$, $\beta2$, $\beta3$, $\beta4$, $\beta5$, $\beta6$ are the parameters to be estimated; t represents different periods (1992-2012);

$$LS_t = \alpha + \beta_1 OPEN_t + \beta_2 FDI_t + \beta_3 UN_t + \beta_4 STATE_t + \beta_5 GOV_t + \beta_6 INDUSTRY + \varepsilon_t$$

LS represents labor share, the explained variable of the model; OPEN represents the ratio of import and export to GDP, and FDI represents the ratio of foreign direct investment to GDP, which are the explanatory variables of the model; UN presents union density, STATE represents nationalization, GOV represents government regulation, and INDUSTRY represents the industrial structure, which are control variables of the model; ε_t represents the model error term. The following describes each variable meaning and its expected symbol.

Explanatory variable: ① The proportion of trade openness (OPEN), total trade to GDP, is equal to (import + export)/GDP; According to the effect of HO theory, this variable is negatively related with labor share, and globalization will increase the effect. According to HO model, there are more skilled workers in industrialized countries while more low skilled workers in developing countries. Increasing trade openness can cause a decline in labor share, and higher capital flows will enhance the effect. ② Capital flows (FDI) : the proportion of foreign direct investment to GDP. Foreign direct investment also has an important contribution to China's economic growth when changing employment configuration and the comprehensive function can be explained better combined with the empirical analysis results.

Control variables: (1) Labor bargaining power (UN), is measured by trade union density. Stronger trade unions or employment protection has a positive influence on wages, but has a negative effect on employment. (2) Nationalization degree (STATE) is measured by the proportion of state-owned enterprises' employees to full employees. (3) Government regulation (GOV).

The government's intervention on economic sectors, for examples, by setting a minimum wage to affect the labor market, will ultimately affect the labor share through certain channels. To control the influence, it is represented with the government fiscal expenditure/GDP ratio. (4) Industrial structure (INDUSTRY), due to the characteristics of dual economy in China, the second industrial output value+ the tertiary industrial output value/primary industrial output value represents changes of industrial structure. Because labor share of the industrial sector is lower than the agriculture sector, in theory, the ratio and labor share will be negatively correlated.

4.3 Data and statistical indicators

Based on the data of 30 provinces from 1992 to 2012, this article carries out analysis, and the data come from *China Statistical Yearbook*, bureau of statistics web site, CEI net database, *China Regional Statistical Yearbook*, *China Labor Statistical Yearbook*, and data released by bureau of statistics in all provinces.

Table 1: Main variable indicators

| year	ls	open	fdi	un	state	gov	industry
1992	0.589	0.300	0.219	0.001	0.183	0.098	3.473
1993	0.595	0.288	0.644	0.001	0.185	0.096	4.017
1994	0.613	0.450	0.933	0.001	0.186	0.086	3.922
1995	0.627	0.408	0.913	0.001	0.184	0.084	3.874
1996	0.642	0.356	0.863	0.001	0.182	0.085	3.956
1997	0.648	0.353	0.804	0.001	0.173	0.086	4.280
1998	0.656	0.325	0.760	0.001	0.145	0.093	4.579
1999	0.649	0.338	0.716	0.001	0.137	0.102	5.053
2000	0.626	0.399	0.676	0.001	0.129	0.106	5.653
2001	0.617	0.389	0.650	0.002	0.121	0.121	6.009
2002	0.611	0.426	0.657	0.003	0.112	0.127	6.449
2003	0.591	0.506	0.641	0.001	0.106	0.124	7.123
2004	0.538	0.570	0.623	0.002	0.101	0.123	7.031
2005	0.543	0.585	0.602	0.002	0.095	0.126	7.598
2006	0.541	0.603	0.585	0.002	0.094	0.131	8.339
2007	0.542	0.591	0.561	0.002	0.086	0.137	8.649
2008	0.588	0.534	0.471	0.002	0.083	0.148	8.697
2009	0.598	0.413	0.449	0.002	0.081	0.167	9.369
2010	0.579	0.461	0.402	0.003	0.081	0.169	9.782
2011	0.587	0.451	0.357	0.003	0.060	0.178	9.990
2012	0.602	0.423	0.344	0.003	0.062	0.186	10.008

Figure 2
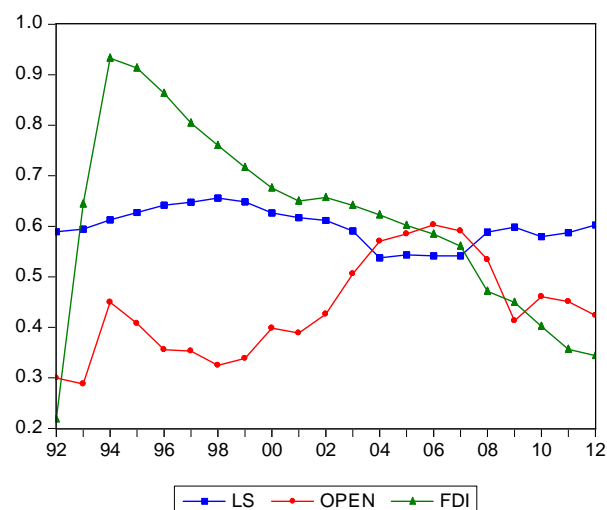
Figure 2 is the time change table of China's labor share, total import and export volume and FDI from 1992 to 2012. We can see from the figure, the whole labor share showed a downward trend; China's labor share and the proportion of import and export to GDP was of significantly negative relationship. The relationship between labor share and FDI (liquidity) is relatively fuzzy. It cannot be directly judged from the graph, and it needs to carry out a further study through the empirical analysis part of this article, to get the real relationship behind the data.

5. *Measurement results and analysis*

Analysis is carried on in different places at different times. For time, taking 2001 as a boundary, analysis is carried on before and after the WTO accession. For area, take eastern, central and western areas as investigation objects, to study the influence of different opening degree of labor share. Among them, the eastern regions include Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, Hainan, the central regions include Heilongjiang, Jilin, Shanxi, Anhui, Jiangxi, Henan, Hubei, Hunan, and the rest belong to the western regions.

To avoid spurious regression, time series data before the return needs test stability of the data. This article uses the ADF test method to test unit root of each variable. The variable lags are selected according to the rule of SIC. All variables are stable, and have time trends. Difference disposal needs to be done on the data, and variables are stable after the first difference. Because there are more than two variables, we use Johansen integration test method to test, and find that long-term correlation exists between variables after difference disposal. The specific results are shown in table 2.

Table 2: Basic regression results

	(1)	(2)	(3)	(4)	(5)	(6)	Pre-Globalization Era	Globalization Era	Eastern regions	Middle regions	Western regions
open	-0.30***	-0.28***	-0.31***	-0.39***	-0.40***	-0.41***	-0.18	-0.76**	-0.14***	-0.98**	-1.52***
	(-5.85)	(-6.75)	(-7.32)	(7.76)	(-7.30)	(-4.85)	(-1.63)	(-2.61)	(-3.61)	(-2.25)	(-4.73)
FDI	--	0.07**	0.10***	0.12***	0.12***	0.11***	0.03	-0.45	0.01	0.48***	0.40***
		(3.35)	(3.91)	(4.97)	(3.98)	(3.15)	(0.56)	(-1.46)	(0.06)	(3.03)	(3.12)
un	--	--	12.13*	-1.91	-0.73	2.45	18.58	14.5	--	--	--
			(1.85)	(0.23)	(-0.07)	(0.19)	(0.86)	(0.97)			
state	--	--	--	-0.46**	-0.53	-049	-1.55	-0.92	-0.06	0.48	-0.06
				(-2.38)	(-1.9)	(-1.39)	(-2.33)	(-0.67)	(-0.22)	(0.76)	(1.03)
gov	--	--	--	--	--0.18	-0.42	-3.4	-5.07	-0.2	2.89**	0.53
					(0.37)	(-0.36)	(1.75)	(-1.68)	(-0.26)	(2.52)	(1.03)
industry	--	--	--	--	--	-0.003	-0.01	0.02	-0.001	-0.06	-0.02
						(0.23)	(-0.19)	(0.97)	(0.12)	(-1.67)	(-0.78)
N	4410	4410	4410	4410	4410	4410	2100	2310	1386	1008	1386
R	0.63	0.78	0.85	0.86	0.86	0.89	0.92	0.91	0.79	0.82	0.78

Note: * * *, * *, * represent the significant of 1%, 5%, 10%. T value is shown in brackets.

5.1 Trade openness variable

Table 2 makes full sample regression, makes regression before and after the WTO accession, and makes regression of the eastern, central, and western regions. From the result of full samples regression, trade openness is significantly negative, showing that the higher the degree of trade openness is, the lower the labor share, which is consistent with theoretical analysis. From the view of time, before the WTO entry, the trade openness was negative, but not significant. After the WTO entry, trade openness was significantly negative. As the degree of trade openness deepens, labor return decreases.

Our country takes absolute advantage of the cheap labor to obtain the opening great achievements, at the expense of the labor income, so that the negative trade openness indicator is obvious. Looking from different regions, trade openness is significantly negative in any region. From the point of value, with the degree of trade openness deepens, which causes largest impact on the labor share in the western regions, and causes the biggest fall in labor return. The economic foundation of western regions is relatively weak, the proportion of exports to GDP is low, and trade product technology content is lower than those of the east are. In order to promote export, price competition between manufacturers, lowers the product cost, reduces the labor costs, and worsens the labor income share in the national income.

5.2 Capital flow variables

Foreign direct investment effects regression result 0.11 of the coefficient, significant at 1% level. From the point of time, the influence of FDI on labor share has larger differences before and after the WTO accession, with 0.03 before the WTO accession, -0.45 after the WTO accession. It is not significant, but the sign has changed. It is consistent with HO trade theory analysis, globalization process makes the capital with strong liquidity gain more returns, and reduces the returns of labor with poor liquidity. From the view of regions, the impact on the labor share is not significant in the eastern regions, significantly positive at the 1% level at the central and western region. FDI can bring a lot of employment opportunities to our country, which causes the demand for labor, improves the employment situation, and promotes the labor share. At the same time, technological progress caused by FDI in theory will improve the productivity, and is not conducive to labor. Regression results show that the effect on employment of foreign direct investment is greater than the effect of technological progress, which is more significant in the central and western regions. However, the impact of FDI on China's labor share depends on sports game of many factors. Data shows that since 2000, the proportion of China's foreign direct investment to GDP is on the decline. According to the regression result we can know the decline of the proportion of FDI total amount will cause the decline of labor share in our country, which is more realistic. It is noted that the decline in the index is not caused by the decline in the FDI total outflow and inflow, but by a big increase in GDP in our country.

5.3 Other variables

(1) Labor bargaining power (UN), the signs are different, and are not significant. From the point of China, trade union power is weak, and many trade union organizations are dummy, and cannot play their proper roles. (2) (STATE) the degrees of nationalization are negative, but not significant, which is because the labor share of state-owned enterprises in China is relatively low than overall level. (3) The impact of government regulation (GOV) on the labor share is negative, but not significant, which disagrees with Harrison (2002) study. This may be related to the system in China. Since 1992, the proportion of China's fiscal spending to GDP continues to rise, with a greater increase after joining the WTO, but China's more fiscal spending is partial to capital, resulting in increased fiscal spending and labor share decline. (4) Industrial structure changes (INDUSTRY) are negatively correlated with labor share, but not significant.

6. Conclusions and policy Recommendations

6.1 Conclusions

From the perspective of economic globalization, this article analyzes the influence of the increased trade openness, capital liquidity caused by economic globalization on China's "labor share". This article uses the data of 30 provinces from 1992 to 2012, adopts Gollin (2002) correction method to measure the labor share of each year, and analyses the characteristics of time, regional distribution; And then after controlling the trade union density, degree of nationalization, government regulation, industrial structure, carry out an econometric analysis of the influence of factors of economic globalization (trade openness and capital flows) on the labor share. Study finds: our country labor share increased slightly from 1992 to 1998, the overall declined after 1998, and recovered slightly after 2007. As a whole, the labor share showed a downward trend; The decline degree in the central and western regions is higher than that of the eastern regions; The increase in trade openness makes labor share drop, which is more significant after the WTO accession, and causes largest impact on the labor share in the western regions; Capital liquidity enhances, especially after the WTO accession, the increase of FDI improves the capital returns with high liquidity, and reduces the labor return. From the view of the region, foreign investment has brought lots of employment opportunities to the western regions, improving the employment situation, and promoting the labor share.

6.2 Policies and Recommendation

Labor income share change has its natural laws. In the process of the development of the market, while income share decreases, but the per capita income increases, which is a pare to improvement. The decline of labor share perhaps is a balanced result, and is the adjustment of labor and capital share to adapt to the current economic globalization. But we also want to focus on how to distribute economic development between capital and labor, to let the people share prosperity

Firstly, introduce foreign trade strategy of employment priority. Promote and support the continuous and stable development of labor-intensive industries, to achieve full employment, and to actively promote employment as a long-term criterion of making foreign trade policy and the domestic economic policy, to make China's labor gain more benefits from the international division of labor.

Secondly, optimization of China's foreign trade commodity structure, effectively improves the present situation of the asymmetry of import and export commodity supply and demand. Because nearly half of the total foreign trade is borne by the processing trade, and enhancing the added value of processing trade and industry correlation can effectively improve the structure of import and export commodities; Actively promote the upgrading of industrial structure, increase the proportion of high-tech products to the exports, and increase import substitution of high-tech equipment, strive to develop the third industry, and reduce the dependence of national economy on the secondary industry with higher tradable degree.

Thirdly, improve the investment environment, and attract FDI. Through direct and indirect effects, foreign direct investment increases employment opportunities, to some extent, solving the employment problem of our country, and the improvement of employment situation will be greatly beneficial to the improvement of the labor share. Though the capital, technology intensive of foreign investment projects increase, the marginal job opportunity brought by per unit of investment reduces. But from the view of the total amount, the increase of foreign direct investment will increase of employment opportunity. Therefore, in order to alleviate the contradiction of total employment in our country, foreign direct investment should be introduced on the basis of improving the investment environment.

Fourthly, based on regional differences, guide foreign direct investment rationally. For areas and rural areas with economic and technological lagged behind and with larger employment pressure, encourage the implementation of labor-intensive projects, and to create job opportunities is as one of the main goals of introduction of foreign capital, so as to speed up the economic development in the underdeveloped regions, and increase employment levels. On the contrary, large and medium-sized cities with good economic condition, abundant technical force, and small employment pressure, emphatically focus on introduction and development of industrial sectors with high technology level. When making the regional investment policy, formulation and implementation of the central and western preferential policies should be paid attention to. Speed up the central and western region development in the local market and accelerate the construction of infrastructure, to attract more FDI to the Midwest regions.

References

Andrew Glyn. (2009). "Functional distribution and inequality," The- Oxford [u.a.]: Oxford Univ. Press, ISBN 978-0-19-923137-9. - 2009, p. 101-126

Bai Chongen, Qian Zhenjie, Wu Kangping. (2008).Research of determinant factors of China's industrial sector factor distribution share, Economic Research, (8): 16-28.

Gollin, Douglas. (2002). "Getting Income Shares Right", Journal of Political Economy, 110(2): 458-474.

Harrison, Ann E.(2002). "Has Globalization Eroded Labor's Share? Some Cross-Country Evidence", UC Berkeley and NBER.

Jiang Lei, Zhang Yuan. (2008).Influence of international trade on labor distribution ratio - based on Chinese provincial panel data analysis, Journal of International Trade, (10)

Krueger, Alan B.(1999). "Measuring Labor's Share", American Economic Review, 89(2): 45-51.

Luo Changyuan, Zhang Jun.(2009). Economics explanation in labor income share - based on Chinese provincial panel data analysis. Management world, (5): 25-35.

Peng Shuang, Ye Xiaodong. (2008). Discussion of the evolution, present situation and the adjustment countermeasures of China's national income distribution pattern since 1978[J]. Economic Review (2).

Ortega, D. And Rodriguez, E (2002). "Openness and Factor Shares", mimeo, Office of Economic and Financial Advisors, Venezuela .

Simon Kuznets.(1959)."Quantitative Aspects of the Economic Growth of Nations: IV. Distribution of National Income", Economic Development and Cultural Change, Vol. 7, No. 3, Part 2 (Apr., 1959), pp. 1-100

Shao Min, Huang Jiuli. (2009).Foreign capital and China's labor income share - empirical research based on industries, Economics (quarterly) Vol. 10. No 1.

Wang Chuanrong.(2005). Mechanism analysis of the influence of economics opens on the labor employment. Population & Economics, (1).

Weng Jie, Zhou Li. (2010). Research on the change of China's industrial sector labor income share: 1997～2008, Chinese Journal of Population Science, (8)

Xiao Wen, Zhou Minghai.(2010). Trade pattern change and labor income share decline - based on the empirical research on China's industrial divisions. Journal of Zhejiang University, (6)

Yang Jun, Shao Hanhua. (2009).Capital deepening, technological progress, and the share of labor compensation under the globalisation, Shanghai Economic Review, (9)

Zuleta,H.(2007). "Why Labor Income Shares Seems to be Constant?" Working paper, March, 2007, University del Rosario .

Zhang Kongkui. (2006).Empirical study on China's labor wages, industrial structure, and the income gap. Special Zone Economy, (10): 117-118

Zhou Shen, Yang Hongyan.(2011). Influence of international trade, technical change on China's industrial sector labor income share, Research on International Economic and Trade, (4).