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Research Article

Labor Industry Allocation, Industrial Structure Optimization, and Economic Growth

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Industrial structure optimization is an important explanatory variable of economic growth. The allocation of production factors among industries affects the evolution of industrial structure and then acts on economic growth. Labor force is one of the most important factors of production. In recent years, there has been a significant wage difference between different industries in China's labor market, and the employees have shifted from low-wage industries to high-wage industries. Using the sample data of 282 prefecture-level cities from 2008 to 2018, this paper tests whether this wage-guided labor industry allocation will affect economic growth and whether there is an intermediary effect of industrial structure optimization. The empirical results show that the allocation of labor force to high-wage industries not only directly hinders economic growth but also indirectly hinders economic growth through the intermediary effect of industrial structure optimization. Furthermore, this paper makes a comparative study in different regions. The research conclusion shows that promoting the optimization of industrial structure and economic growth depends on correcting the price distortion of labor market and guiding the cross-industry rational allocation of labor force.

1. Introduction

Industrial structure optimization is the most significant feature in the process of economic development and the core variable to explain the economic growth rate and growth mode [1]. The reason why the optimization of industrial structure will affect economic growth is that production factors flow between different industrial sectors, from sectors with low productivity or low productivity growth rate to sectors with high productivity or high productivity growth rate, which improves the productivity level of the whole society, that is, the allocation of production factors acts on economic growth through the optimization of industrial structure [2, 3]. Labor force is the most important factor of production and an important link connecting other factors of production. The cross-industry flow of labor force will inevitably affect the change of industrial structure and further affect economic growth. In recent years, China's labor market has shown a significant feature. The wage gap between industries has been expanding, and the number of employees in various industries has also changed. More and more labor force has been flowing out of low-wage industries to high-wage industries. In 2019, the average wage of employees in information transmission, computer service, and software industries with the highest value of urban units in China was 161,352 yuan, that in financial industry was 131,405 yuan, and that in agriculture, forestry, animal husbandry, and fishery was 39,340 yuan, with a significant gap. At the same time, in 2019, the number of urban employees in the financial industry increased by 18%, while that in agriculture, forestry, animal husbandry, and fishery decreased by 31%. Then, how does this cross-industry flow of labor force under the guidance of wage signal affect economic growth? Is there an intermediary effect of industrial structure optimization? Clarifying this issue will help China better follow the "quality change, efficiency change, and power change" at this stage, promote the optimization of industrial structure, improve the allocation efficiency of production factors, and tap new economic growth points.

2. Literature Review

The research on the impact of labor allocation on economic growth has a long history. Neoclassical economic growth theory and endogenous growth theory believe that economic growth mainly depends on the input of labor, capital, and other production factors and technological progress, and labor is the key factor of economic growth [4, 5]. When other factors remain unchanged, there are two ways for labor to affect economic growth: one is to promote exogenous economic growth by increasing the number of labor input, and the other is to trigger endogenous economic growth in the form of effective labor. When the marginal income of labor force is not equal among industries, labor flow will occur. The cross-industry flow of labor force, especially from the agricultural sector with low productivity to the non-agricultural sector with high productivity, is an important mechanism of economic growth [6]. The transfer of labor force causes the redistribution of labor factors between different departments and regions. The change of labor employment structure brings the change of factor productivity, which plays a role in the economic growth of the whole country or region through "structural dividend" [7]. Since the reform and opening up occurred more than 40 years ago, China's economy has grown rapidly and the industrialization process has accelerated. It is precisely because the labor force has changed from the agricultural sector with low productivity to the industrial sector with high productivity that it has released a huge "structural dividend" and promoted the improvement of the overall economic efficiency [8, 9]. A comparative analysis of the economic performance of China and India shows that the reallocation of labor force from agriculture to industry and service industry has contributed 1.2 percentage points to China's productivity growth [10]. With the deepening of industrialization, the effect of labor allocation is gradually rising, and higher than that of capital allocation. Even in the deindustrialization stage, the effect of labor allocation is still an important factor in economic growth, which mainly comes from the change of labor increment structure [11].

From the perspective of industrial structure, there are also rich achievements in studying the impact of labor allocation on economic growth. In the 17th century, William Petty first put forward the theory of industrial structure. He attributed the differences in national income levels and different stages of economic development to different industrial structures of various countries. Based on the research results of petty, Colin Clark deeply analyzed the change trend of the distribution structure of employees in the three industries. He pointed out that, with the improvement of per capita national income, the labor force first moved from the primary industry to the secondary industry. When the per capita national income further increases, the labor force will move to the tertiary industry. Then, when discussing the measurement of national income, Kuznets proposed that the measurement of national income of a country must be measured from the perspective of industrial structure, and the industrial structure of an economy is determined by its mode of production [12]. By analyzing the determinants of sector growth and using the empirical data of 51 countries, Chenery shows that when the economic scale of a country changes, the change of service industry and agriculture is the smallest, and the growth of manufacturing industry is the largest. Therefore, this industrialization model can obtain the optimal allocation of resources [13]. His other research shows that the transfer of labor force makes the redistribution of labor factors between different departments and regions, and the change of labor employment structure brings about the change of factor productivity, which plays a role in the economic growth of the whole country or region. The transformation of industrial structure is a core variable to understand the difference between the economic development of developing countries and developed countries, and it is also the essential requirement for late developing countries to accelerate economic development [14]. Romer believes that long-term economic growth is contributed by technological progress, while short-term economic growth is contributed by the increase of capital, labor, and other factor inputs. However, capital, labor, and technology are organized together for production in a certain industrial structure. For a given capital, labor, and technology, different industrial structures will lead to different production [15].

Some studies also pay attention to the impact of labor market price distortion on labor allocation effect. Basu believes that cross-regional labor mobility is caused by endogenous wage distortion, which can increase the output of the industrial sector and optimize the employment structure in economic development [16]. However, the research on China's market found that there is market distortion in China's labor market. In recent 10 years, the output loss caused by market distortion is about 3%. The decline of the degree of labor market distortion is conducive to the improvement of the rationalization level of industrial structure [17]. Moreover, the distortion of labor market price amplifies the regional spillover effect of labor transfer and further widens the regional economic gap [18].

Existing studies have focused on the impact of labor allocation on economic growth, the impact of industrial structure change driven by labor industry mobility on economic growth, and the impact of labor price distortion on labor allocation effect. However, few studies put labor industry allocation, industrial structure optimization, and economic growth in a unified framework to empirically test the impact mechanism of labor allocation on economic growth through industrial structure optimization. Furthermore, the labor industry allocation concerned in this paper is the interindustry flow of labor guided by price. Therefore, this paper will also verify whether there is price distortion in China's labor market from another angle.

3. Research Methodology

3.1. Model Setting. Based on the above theoretical analysis, in order to empirically test whether wage-oriented labor industry allocation will affect economic growth, the following model is established on the basis of controlling time effect and regional effect:

$$\ln gdp_{it} = \alpha_0 + \alpha_1 \text{laboris}_{it} + \lambda_j \sum_{j=1}^{n} \text{control}_{jit} + \zeta t + \mu_i + \varepsilon_{i,t}. \tag{1}$$

In order to further test the transmission mechanism of labor industry allocation on economic growth, that is, whether there is an intermediary effect of industrial structure optimization, the following intermediary effect model is further constructed with reference to the methods of Wen et al. [19]:

$$\begin{cases} \text{TL}_{it} = \beta_0 + \beta_1 \text{laboris}_{it} + \lambda_j \sum_{j=1}^{n} \text{control}_{jit} + \zeta t + \mu_i + \nu_{i,t}, \\ \text{TS}_{it} = \beta_0 + \beta_1 \text{laboris}_{it} + \lambda_j \sum_{j=1}^{n} \text{control}_{jit} + \zeta t + \mu_i + \nu_{i,t}, \end{cases} \tag{2}$$

$$\begin{cases} \ln gdp_{it} = \gamma_0 + \gamma_1 \text{laboris}_{it} + \gamma_2 \text{TL}_{it} + \lambda_j \sum_{j=1}^{n} \text{control}_{jit} + \zeta t + \mu_i + \omega_{i,t}, \\ \ln gdp_{it} = \gamma_0 + \gamma_1 \text{laboris}_{it} + \gamma_2 \text{TS}_{it} + \lambda_j \sum_{j=1}^{n} \text{control}_{jit} + \zeta t + \mu_i + \omega_{i,t}, \end{cases} \tag{3}$$

where the independent variable $\ln gdp_{it}$ is the actual GDP of local cities. The real GDP is obtained by adjusting the nominal GDP by using the GDP deflator of the provinces where the cities are located in 2008 as the base period and taking the logarithm.

The core explanatory variable laboris_{it} is the wage-oriented labor industry allocation in each city. Referring to Zhang and Zhang [20], it is measured by the proportion of the number of employees in high-wage industries in the total number of employees. According to the data of "average wage of urban nonprivate sector employees by industry" in China Statistical Yearbook, the average wage level of employees in 19 industries from 2008 to 2018 is calculated. Six industries with an average wage level higher than 60,000 yuan are defined as high-wage industries, and other industries are defined as low-wage industries.

The intermediate variable is industrial structure optimization, which is measured by industrial structure rationalization TL_{it} and industrial structure upgrading TS_{it}. Rationalization of industrial structure refers to the coupling degree of input structure and output structure of factors among different industries, which can be measured by the Theil index defined by Gan et al. [21], and the calculation formula is as follows:

$$\text{TL} = \sum_{i=1}^{n} \left(\frac{Y_i}{Y}\right) \ln\left(\frac{Y_i/L_i}{Y/L}\right), \tag{4}$$

where Y_i represents the output value of each industry, L_i is the number of employees in each industry, i represents different industries, n is the number of industries, and Y/L represents labor productivity. In equilibrium, the labor productivity of each industry tends to be equal $Y_i/L_i = Y/L$, so $\text{TL} = 0$. Therefore, the closer the value of TL is to 0, the closer the industrial structure is to the equilibrium state, and the more reasonable the industrial structure is. On the contrary, the more unreasonable the industrial structure is.

The upgrading of industrial structure mainly measures the evolution of industry to a higher level. The experience of developed countries shows that "service-oriented industrial structure" is an important feature of industrial upgrading. Therefore, this paper uses the ratio of the output value of the tertiary industry to the output value of the secondary industry to measure the advanced degree of industrial structure, which is recorded as TS.

The selection of control variables refers to the practices of Gan et al. [22] and Bai et al. [23]. The control variables include the number of employees, the amount of investment in fixed assets, the degree of government intervention, financial deepening, and scientific research innovation. The number of employees and fixed asset investment is recorded as labor and FAI, respectively. These two indicators are the actual values processed by logarithm. The actual values are obtained by adjusting the nominal values according to the price index of the provinces where the cities are located in 2008 as the base period. Government intervention is recorded as GI, which is measured by the proportion of local general public budget expenditure in GDP. Financial deepening is recorded as FD, measured by the proportion of RMB loan balance of financial institutions in GDP at the end of each year. Scientific research innovation is recorded as SRI, which is measured by the amount of invention patent authorization in each city and processed by logarithm.

According to the mediation effect test process, the regression equation is

$$\begin{aligned} Y &= cX + e_1, \\ M &= aX + e_2, \\ Y &= c'X + bM + e_3. \end{aligned} \tag{5}$$

First, test the significance of coefficient c. If coefficient c passes the significance test, then test the significance of coefficients a and b in turn. If both coefficient a and coefficient b pass the significance test, then further test the significance of coefficient c'. If c' is significant, it indicates that there is a partial mediating effect. If the coefficient c' is not significant, there is a complete intermediary effect. When at least one of the coefficients a and b is not significant, Sobel test is required. If the Sobel test is significant, there is a partial mediating effect. If Sobel test is not significant, there is no significant mediating effect.

3.2. Data Sources. This paper takes Chinese cities as the research object, and the sample interval is 2008–2018. Considering the availability of data, this paper excludes some sample cities with serious data loss and finally retains the sample data of 282 cities for empirical analysis. All data are annual data, which are derived from China Urban Statistical Yearbook, China Statistical Yearbook, and CEIC database. The descriptive statistics of variables are shown in Table 1.

4. Results and Discussion

4.1. Regression Results. The F-test and Hausman test of equations (1)–(3) show that the panel fixed effect should be used to estimate the equation. In order to eliminate the problems of sequence correlation and heteroscedasticity, this paper uses the processing method of clustering robust standard error. The final empirical results are shown in Table 2.

The regression results of model 1 show that the regression coefficient of labor industry allocation on economic growth is significantly negative, indicating that the wage-oriented cross-industry flow of labor has damaged economic growth in recent years. The regression coefficients of labor input and fixed asset investment are significantly positive, which is in line with the neoclassical economic theory. The increase of factor input is an important force to promote economic growth. The regression coefficient of scientific research innovation is significantly positive, and technological progress is also an important driving force of economic growth.

The regression results of model 2 show that the labor industry allocation significantly affects the rationalization level of industrial structure. The higher the employment proportion of high-wage industries, the more unreasonable the industrial structure is. This shows that the flow of labor force to high-wage industries has indeed reduced the level of rationalization of industrial structure. From another perspective, labor industry allocation has a positive impact on the upgrading of industrial structure, although the regression coefficient is not significant. This may be because most high-wage industries belong to the tertiary industry, so the flow of labor to high-wage industries makes the tertiary industry develop more rapidly and the level of industrial structure upgrading.

The regression results of model 3 show that when the variables of labor industry allocation and industrial structure rationalization are added to the equation at the same time, labor industry allocation still has a significant impact on economic growth, and the impact of industrial structure rationalization on economic growth is not significant. However, when the variables of labor industry allocation and industrial structure upgrading are added to the equation at the same time, both of them have a significant negative impact on economic growth. Sobel test was further conducted according to the mediation effect test process. The test results show that TL and TS have partial mediating effects at the significance level of 1%. This shows that the flow of labor force to high-wage industries not only directly hinders economic growth but also reduces the level of industrial rationalization and promotes the advanced level of industrial structure, which makes the industrial structure "deindustrialized" too early, and then indirectly damages economic growth.

4.2. Discussion by Region. China has a vast territory, different levels of economic development, and different industrial structures in the east, middle, and west. In order to investigate the heterogeneity of the impact of labor industry allocation on economic growth, Table 3 presents the results of regional regression. The regression results of model 1 show that the coefficients of labor industry allocation in the eastern, central, and western regions are significantly negative, indicating that no matter in which region, the labor industry allocation guided by wages hinders economic growth, among which the eastern region has the strongest blocking effect, followed by the western region.

The regression results of model 2 show that, in the eastern region, the allocation of labor force to high-wage industries significantly reduces the rationalization level of industrial structure and improves the advanced level of industrial structure, which is similar to the regression results obtained from the national data, but the significance of the regression coefficient is higher. In the central region, the labor industry allocation also significantly reduces the rationalization level of industrial structure. Compared with the eastern region, the regression coefficient is small, indicating that the impact is slightly weak. At the same time, the allocation of labor industry has improved the advanced level of industrial structure, but the regression coefficient is not significant. In the western region, at the significance level of 5%, the impact of labor industry allocation on the rationalization and upgrading of industrial structure is not significant.

The regression results of model 3 show that when the variables of labor industry allocation and industrial structure optimization are added to the regression equation at the same time, the regression results of the east, middle, and west are similar, and the labor industry allocation and industrial structure upgrading have a significant negative impact on economic growth. The results of Sobel test show that, under the significance level of 5%, there is an intermediary effect of industrial structure rationalization in the eastern and western regions. The intermediary effect of the upgrading of industrial structure is significant in the eastern

Table 1: Descriptive statistics of variables.

Variables	Number of samples	Mean value	Standard deviation	Minimum value	Maximum
Ln*g*dp	3102	14.9753	1.1582	11.9931	19.1139
Laboris	3102	0.1801	0.0637	0.0199	0.5000
TL	3102	0.1580	0.1667	0.0000	1.5800
TS	3102	1.0476	0.6311	0.0943	5.9000
Labor	3102	8.4348	1.1281	6.0426	12.0538
FAI	3102	15.5208	0.8940	12.3482	24.9647
GI	3102	0.1704	0.1053	0.0001	2.7024
FD	3102	1.2736	0.6950	0.0604	8.8943
SRI	3102	4.4153	1.9198	0.0000	10.7577

Table 2: Regression results of mediating effect test.

	Model (1) ln*g*dp	Model (2) TL	Model (2) TS	Model (3) ln*g*dp	Model (3) Ln*g*dp
Laboris	−0.7160***	0.4164***	0.4362	−0.7506***	−0.6596***
TL				0.0838	
TS					−0.1286***
Labor	0.1201**	0.0256	−0.1592**	0.1179**	0.0996**
FAI	0.1067***	0.0094	−0.1267***	0.1059***	0.0904**
GI	−0.3881**	−0.0113	0.1388	−0.3871**	−0.3702*
FD	−0.1441***	−0.0075	0.1168***	−0.1435***	−0.1291***
SRI	0.0266**	0.0151***	−0.0375	0.0253**	0.0218**
Constants	12.5618***	−0.2914	3.9915***	12.5862***	13.0751***
Obs	3102	3102	3102	3102	3102
F	47.11	4.36	27.13	44.87	48.84
R-sq	0.3678	0.0481	0.3651	0.3690	0.3989
Individual effect	Controlled	Controlled	Controlled	Controlled	Controlled
Time effect	Controlled	Controlled	Controlled	Controlled	Controlled
Sobel test *Z* value				−4.04	3.198
Sobel test *p* value				0.0001	0.0014

Note. ***, **, and * indicate significant differences at the levels of 1%, 5%, and 10%, respectively.

Table 3: Regression results of regional mediating effect test.

		Model (1) ln*g*dp	Model (2) TL	Model (2) TS	Model (3) ln*g*dp	Model (3) ln*g*dp
Eastern region	Laboris	−0.8906**	0.4480***	1.0693***	−0.83011**	−0.7535*
	TL				−0.1350	
	TS					−0.1282**
	Obs	1100	1100	1100	1100	1100
	F	16.12	2.97	13.54	15.48	0.4748
	R-sq	0.4617	0.0872	0.4712	0.4636	14.89
	Sobel test *Z* value				−2.27	3.833
	Sobel test *p* value				0.0232	0.0001
Central region	Laboris	−0.3469**	0.3926***	0.7317	−0.4199**	−0.2776*
	TL				0.1859	
	TS					−0.0947***
	Obs	1078	1078	1078	1078	1078
	F	29.76	2.91	18.27	30.32	32.52
	R-sq	0.4034	0.1462	0.3912	0.4079	0.4292
	Sobel test *Z* value				1.103	−1.977
	Sobel test *p* value				0.2699	0.0480

Table 3: Continued.

		Model (1) lngdp	Model (2) TL	Model (2) TS	Model (3) lngdp	Model (3) lngdp
	Laboris	−0.4407*	0.4193	−1.2419	−0.5135*	−0.6191**
	TL				0.1736	
	TS					−0.1436***
	Obs	924	924	924	924	924
	F	19.42	3.42	15.99	19.89	24.11
Western region	R-sq	0.3697	0.0825	0.3467	0.3787	0.6029
	Sobel test Z value				−2.562	0.0490
	Sobel test p value				0.0104	0.9609
	Control variables	Controlled	Controlled	Controlled	Controlled	Controlled
	Individual effect	Controlled	Controlled	Controlled	Controlled	Controlled
	Time effect	Controlled	Controlled	Controlled	Controlled	Controlled

Note. ***, **, and * indicate significant differences at the levels of 1%, 5%, and 10%, respectively.

Table 4: Regression results of robustness test.

	Model (1) lngdp	Model (2) TL	Model (2) TS	Model (3) Lngdp	Model (3) lngdp
Laboris	−0.9054***	0.4160***	0.5893**	−0.9297***	−0.7932***
TL				0.0585	
TS					−0.1904***
Labor	0.1418**	0.0585	−0.1758**	0.1384**	0.1084*
FAI	0.0030	−0.0004	0.0101	0.0029	0.0049
GI	−0.3574	0.0096	0.1485	−0.3580	−0.3291
FD	−0.1711***	−0.0057	0.1458***	−0.1707	−0.1433***
SRI	0.0377***	0.0118**	−0.0677***	0.0370***	0.0248*
Cons	13.8981	−0.3982	1.9795***	13.9215***	14.2750***
Obs	2486	2486	2486	2486	2486
F	34.77	3.89	28.29	33.39	36.52
R-sq	0.3231	0.0448	0.4335	0.3236	0.3657
Individual effect	Controlled	Controlled	Controlled	Controlled	Controlled
Time effect	Controlled	Controlled	Controlled	Controlled	Controlled
Sobel test Z value				−4.154	2.091
Sobel test p value				≤0.001	0.0366

Note. ***, **, and * indicate significant differences at the levels of 1%, 5%, and 10%, respectively.

and central regions. This shows that, in the eastern region, wage-oriented labor industry allocation not only directly hinders economic growth but also indirectly hinders economic growth by reducing the rationalization level of industrial structure and pushing up the advanced level of industrial structure. The blocking effect is strong. In the central region, wage-oriented labor industry allocation directly hinders economic growth, and indirectly hinders economic growth mainly by promoting the upgrading of industrial structure, and the intermediary effect of industrial structure rationalization is not significant. In the western region, the wage-oriented labor industry allocation also directly hinders economic growth, but from the perspective of industrial structure optimization, it indirectly hinders economic growth mainly by reducing the rationalization level of industrial structure, and the intermediary effect of industrial structure upgrading is not significant.

4.3. Robustness Test. In order to verify the robustness of the conclusion, this paper uses some samples for further regression. All cities are ranked according to the average GDP from 2008 to 2018, excluding the top 10% and the bottom 10% of 56 cities, respectively, and taking the data of the remaining 226 cities as a new sample, the regression results are shown in Table 4. It can be seen that the regression coefficient of the core explanatory variable remains robust, and the Sobel test results also show that the intermediary effect is significant at the level of 5%. This shows that the research conclusion of this paper is robust.

5. Conclusions and Implications

The optimization of industrial structure is a key measure to improve the comprehensive competitiveness of China's economy. It requires the evolution of industrial

development to a higher level and the continuous improvement of the allocation efficiency of production factors. In recent years, the industry wage difference in China's labor market is significant. Under the guidance of price signal, more and more labor flows to high-wage industries. How does this wage-oriented labor allocation affect economic growth? Is there an intermediary effect of industrial structure optimization? Based on the sample data of 282 cities in China from 2008 to 2018, this paper establishes an intermediary effect model for empirical analysis.

The results of empirical research show that wage-oriented labor industry allocation not only directly hinders economic growth but also indirectly hinders economic growth by reducing the rationalization level of industrial structure and pushing up the advanced level of industrial structure. The results of subregional research show that whether in the eastern, central, or western regions, wage-oriented labor industry allocation directly hinders economic growth. In terms of the intermediary effect of industrial structure optimization, the intermediary effect of industrial structure rationalization and industrial structure upgrading in the eastern region is significant, that is, the flow of labor to high-wage industries indirectly hinders economic growth by reducing the level of industrial structure rationalization and promoting the level of industrial structure upgrading in the eastern region. In the central region, the intermediary effect of industrial structure optimization is mainly concentrated in the upgrading of industrial structure, that is, the flow of labor force to high-wage industries indirectly hinders economic growth by pushing up the upgrading level of industrial structure in the central region. Different from the eastern and central regions, the intermediary effect of industrial structure optimization in the western region is mainly reflected in the rationalization of industrial structure, that is, the flow of labor to high-wage industries indirectly hinders economic growth mainly by reducing the rationalization level of industrial structure in the western region. The above conclusions passed the robustness test.

When there is no price distortion in the labor market, the market equilibrium wage level reflects the difference of labor productivity. High-wage industries have efficient labor production and high marginal product value. Therefore, wage-oriented labor industry allocation will improve the allocation level of production factors and promote economic growth. However, if there is price distortion in the labor market, high wages in the industry come from market frictions such as monopoly, regulation, discrimination, information asymmetry, and transaction costs, rather than advanced productivity, and labor flows to high-wage industries, it will not improve the efficiency of resource allocation in the whole society and even hinder economic growth. In the process of China's gradual reform, the market-oriented reform of factor market lags behind the product market, and there is price distortion in the labor market. Most high-wage industries are state-owned or monopoly departments, which do not aim at maximizing profits, or pay attention to scale, or subsidies, or focus on cost maximization, with low production efficiency. However, during the economic downturn, these sectors attract a large influx of labor with high welfare and stable income expectations. This distorted price-guided labor industry allocation damages the sustainable development of low-wage industries and is not conducive to the coordinated development of various departments of the national economy and the continuous optimization of industrial structure.

Fully tapping the structural dividend of labor industry allocation depends on the further promotion of market-oriented reform. First, reduce the market friction caused by institutional factors such as monopoly and regulation, reducing interindustry barriers, enabling the full flow of production factors among different industries, and giving full play to the decisive role of the market in labor allocation. Secondly, deepen the reform of the price formation mechanism of the labor market, so that the wage level can truly reflect the marginal productivity of labor and become an effective signal to guide the rational allocation of labor force. Thirdly, deepen the reform of the social security system, improve the social welfare system and public service system, optimize the employment environment, and guide the rational and standardized flow of labor force. Finally, we should rationally plan the industrial layout, constantly improve the level of industrial rationalization, and prevent the virtual high of industry and premature "deindustrialization" from damaging economic growth.

Data Availability

All data come from China Urban Statistical Yearbook, China Statistical Yearbook, and CEIC database.

Conflicts of Interest

The author declares that there are no conflicts of interest.

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