

BRICS Productivity Ecosystems for Decent Work Country Studies: an analysis from China

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1. Introduction

1.1 Research Context

The relationship between productivity and decent work is a key factor in discussions on promoting economic growth and improving living standards and ensuring social justice. Productivity growth and decent work are linked, although the nature of this link is complex. At the 2023 Labour and Employment Minister Meeting, the BRICS recognized "the significance of sustainable enterprises and the crucial relationship between productivity and decent work" and affirmed its commitment to prioritize "policies and initiatives that enhance productivity, improve working conditions and promote employment creation, (to) aim to achieve decent work, and inclusive economies and societies". In this context, the Labour and Employment Minister Meeting called for the establishment of a BRICS Productivity Ecosystems for Decent Work Platform for knowledge exchange and research. As a first step in the development of a knowledge base for such a Platform, the ILO will undertake an initial series of four research studies to elucidate good practices and lessons learned on promoting the productivity and decent work nexus in China, Brazil, India and South Africa. This initiative is grounded in the principles of South-South and Triangular Cooperation (SSTC), emphasizing mutual learning, solidarity, and demand-driven collaboration among developing countries to enhance productivity and decent work.

1.2 Research Objectives and Content

This report explores the quantitative relations and changes between labour productivity and labour earnings in China, within the framework of Productivity Ecosystems for Decent Work. It also includes case studies so as to provide data and examples to support the development of the BRICS Decent Work Productivity Ecosystem Platform.

The content of this study encompasses the following:

- --Analyse the intrinsic links and evolving characteristics between labour productivity and labour earnings in China, providing empirical evidence to understand their relationship.
 - -- Analyse the structural characteristics of labour earnings changes.
- --Analyse the correlation between changes in labour productivity and changes in labour earnings.
- --Review the implementation measures and progress of collective negotiations on skills-based wage in China through case studies, analyze best practices in specific regions and enterprises, and assess their impact on effectively increasing labour earnings and productivity.

1.3 Research Significance

By examining the synchronicity between labour productivity growth and labour earnings in China, this research will enhance and unify the understanding of the significance of the relationship between labour earnings and labour productivity, provide Chinese evidence for establishing a knowledge base on the BRICS Productivity Ecosystems for Decent Work, as well as provide targeted policy implications for

optimizing income distribution and enhancing labour productivity in BRICS. Additionally, it will provide targeted suggestions to support the ILO's efforts in promoting productivity ecosystems for decent work.

At the same time, the implementation of the project will also facilitate collaboration among governments, private sectors, and civil society organizations across BRICS nations, promoting a unified approach to enhance productivity and decent work through relations among the Global South.

PART A

2. Analysis of Trends in Labour Productivity and Labour Earnings

2.1 Analysis of Trends in Labour Productivity^[1]

2.1.1 Trends in Nominal and Real Labour Productivity

Over the past two decades, China's nominal labour productivity and real labour productivity have both shown a steady upward trend. Nominal labour productivity increased from 21.8 thousand CNY per person in 2004 to 170.3 thousand CNY per person in 2023, with a nominal annual growth rate of 11.43%. Since nominal labour productivity includes growth driven by factors such as rising prices, real labour productivity, which excludes price changes, provides a more accurate reflection of the actual improvement in labour efficiency. After adjusting for price changes (with 2004 as the base year for GDP deflation), real labour productivity grew from 21.8 thousand CNY per person to 94.6 thousand CNY per person over the same period, with real annual growth rate of 8.03%.

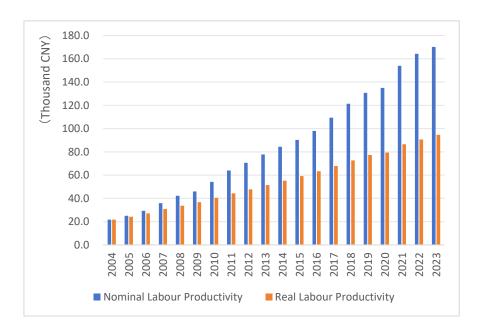


Figure 2-1 Nominal and Real Labour Productivity from 2004 to 2023

2.1.2 Trends In Nominal and Real Labour Productivity by Three Strata of Industry

Chinese statistical data indicate that in 2023, the number of employed persons in China reached 740.41 million, of which the number of employed persons in the primary industry was 168.82 million, accounting for 22.8%; the number of employed persons

^[1] The data on labour productivity and its explanations can be found in Part 1 of the attachment.

in the secondary industry was 215.20 million, accounting for 29.1%; and the number of employed persons in the tertiary industry was 356.39 million, accounting for 48.1%.

Over the past two decades, the nominal labour productivity in China's secondary industry has consistently been the highest among three strata of industry. From 2004 to 2023, the nominal labour productivity in the primary industry increased from 6 thousand CNY per person to 52.8 thousand CNY per person, the secondary industry surged from 44.5 thousand CNY per person to 221.2 thousand CNY per person, and the tertiary industry rose from 30.4 thousand CNY per person to 204.6 thousand CNY per person. The growth trends of labour productivity in these three industries illustrate the continuous optimization and upgrading of China's industrial structure.

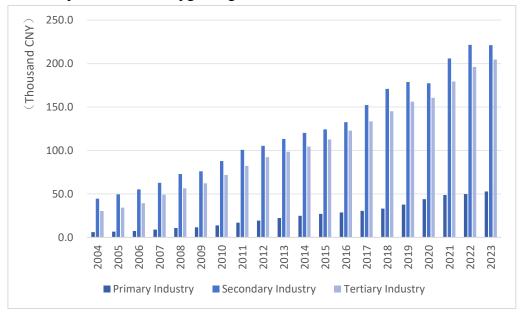


Figure 2-2 Nominal Labour Productivity by Three Strata of Industry from

2004 to 2023

In terms of growth rates, between 2004 and 2023, the primary industry had the highest average annual growth rate of labour productivity at 12.13%, followed by the tertiary industry at 10.56%, while the secondary industry had the lowest at 8.81%. The differentiated growth rates have gradually narrowed the gaps in nominal labour productivity levels among three strata of industry, with the tertiary industry gradually catching up with the secondary industry. The ratio of the primary industry's nominal labour productivity to that of the secondary industry increased from 13.50% in 2004 to 23.88% in 2023, and the ratio of the tertiary industry to the secondary industry also rose from 68.33% in 2004 to 92.51% in 2023, indicating a significant reduction in the labour productivity gaps among three strata of industry.

Similar to the trend in nominal labour productivity, China's real labour productivity by three strata of industry has also shown a general trend of steady growth over the past two decades. From 2004 to 2023, real labour productivity in the primary industry increased from 6 thousand CNY per person in 2004 to 26.9 thousand CNY per

person in 2023, with an average annual growth rate of 8.22%, ranking first among the three strata of industry. The secondary industry saw an increase from 44.5 thousand CNY per person to 148.6 thousand CNY per person, with an average annual growth rate of 6.56%. The tertiary industry rose from 30.4 thousand CNY per person to 95.6 thousand CNY per person, with an average annual growth rate of 6.22%. The growth rates of the secondary and tertiary industries are similar.

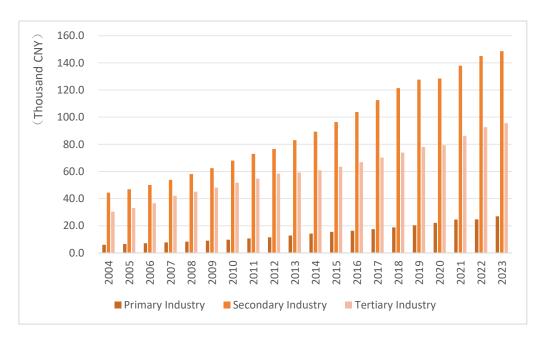


Figure 2-3 Real labour Productivity by Three Strata of Industry from 2004

to 2023

2.2 Analysis of Wage Trends

The existing wage statistics in China only includes urban employed persons, does not cover urban individual employed persons or rural employed persons^[2].

2.2.1 Analysis of Wage Trends by Urban Non-private and Private Units[3]

Urban employed persons are primarily divided into two categories: employed persons in urban non-private units (EPUN) and employed persons in urban private units (EPUP). In 2019, the most recent year with official data, the number of EPUN was 172 million, while the number of EPUP was 146 million.

2.2.1.1 Wage Trends for EPUN

Over the past two decades, the nominal average wage of EPUN has continued to grow rapidly. It increased from 15,920 CNY in 2004 to 120,698 CNY in 2023, with an average annual growth rate of 11.25%.

Real average wages also showed a continuous upward trend, increasing from

^[2] The data on employed person and its explanations can be found in Part 2 of the attachment.

^[3] The data on wages and its explanations can be found in Part 3 of the attachment.

15,920 CNY in 2004 to 77,704 CNY in 2023, with an average annual growth rate of 8.70%.

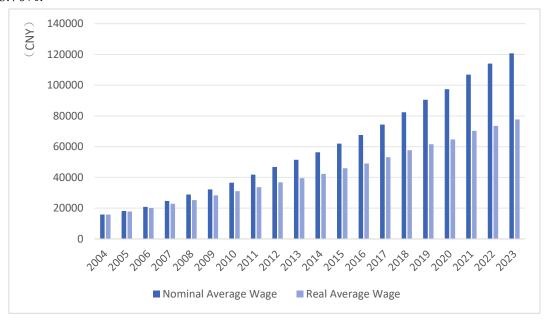


Figure 2-4(a) Average Annual Wage of EPUN from 2004 to 2023

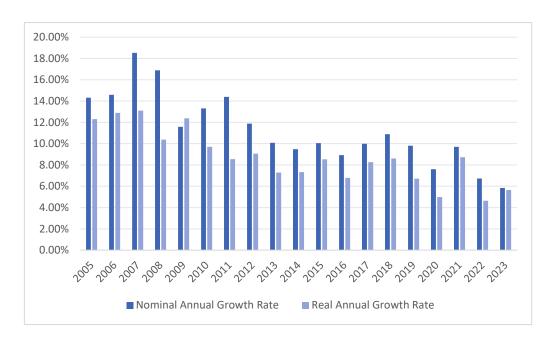


Figure 2-4(b) Annual Growth Rate of Average Wage in EPUN from 2005 to 2023

2.2.1.2 Wage Trends for EPUP

The official publication of wage statistics for EPUP in China began in 2009. Nominal average wage of EPUP in China increased from 18,199 CNY in 2009 to 68,340 CNY in 2023, with an average annual growth rate of 9.91%.

During the same period, the actual average wage of EPUP has been growing at a

relatively fast pace overall, and the gap between EPUP and EPUN has not widened. The real average wage for EPUP increased from 15,983 CNY in 2009 to 43,996 CNY in 2023, with an average annual growth rate of 7.50%. This rate exceeded the average annual growth rate of real labour productivity during the same period (6.99%) and was also higher than the average annual growth rate of real wages for EPUN (7.48%).

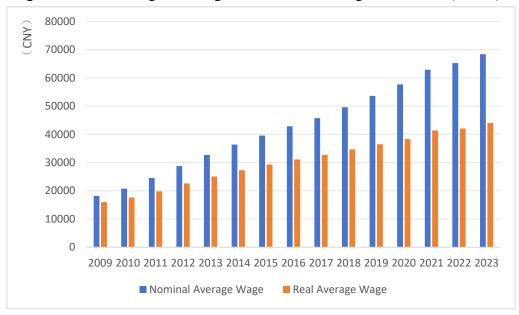


Figure 2-5(a) Average Annual Wage of EPUP from 2009 to 2023

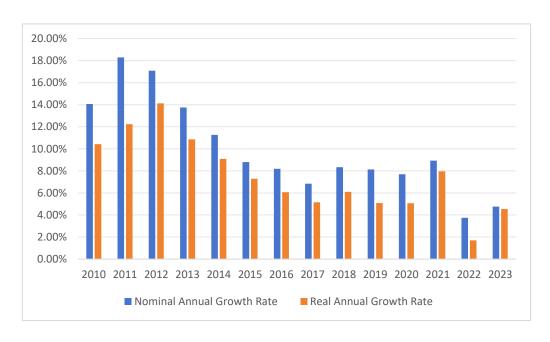


Figure 2-5(b) Annual Growth Rate of Average Wage in EPUP from 2010 to 2023

2.2.2 Analysis of Wage Trends by Sector

China's urban non-private sector includes nineteen sectors, while the urban private sector includes eighteen sectors.

2.2.2.1 Analysis of Wage Trends by Sectors in Urban Non-private Units

Between 2004 and 2023, the average wage in urban non-private sectors showed a general trend of growth. In terms of wage gaps, the disparities among sectors showed a trend of fluctuating but generally declining over time.

In 2004, the top three sectors by wage level were Information Transmission, Software and Information Technology (33,449 CNY), Financial Intermediation (24,299 CNY), Scientific Research and Technical Services (23,351 CNY). The bottom three were Agriculture, Forestry, Animal Husbandry and Fishery (7,497 CNY), Construction (12,578 CNY), Hotels and Catering Services (12,618 CNY). The ratio of the highest to the lowest wage was 4.46 times. By 2023, the top three sectors by wage level also were Information Transmission, Software and Information Technology (231,810 CNY), Financial Intermediation (197,663 CNY), Scientific Research and Technical Services (171,447 CNY). However, the low-wage sectors changed. The bottom three were Hotels and Catering Services (58,094 CNY), Agriculture, Forestry, Animal Husbandry and Fishery (62,952 CNY), Management of Water Conservancy, Environment and Public Facilities (68,656 CNY). The ratio of the highest to the lowest wage narrowed to 3.99 times.

In terms of wage growth rates between 2004 and 2023, the top three sectors were Wholesale and Retail Trades (12.62%), Agriculture, Forestry, Animal Husbandry and Fishery (11.85%), Financial Intermediation (11.66%). These high growth rates were generally associated with improvements in workers' skills and the improvement in labour productivity. The bottom three sectors were Hotels and Catering Services (8.37%), Real Estate (8.81%), Service to Households, Repair and Other Services (8.88%). These sectors often face intense competition, market saturation, or labour cost pressures.

Between 2004 and 2023, the average real wage growth rate in 12 sectors, including Wholesale and Retail Trades and Agriculture, Forestry, Animal Husbandry and Fishery, exceeded the average annual growth rate of real labour productivity of 8.03% during the same period.

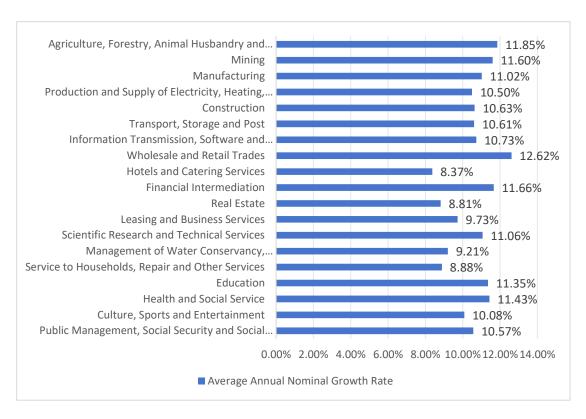


Figure 2-6 Nominal Annual Growth Rate of Average Wage in Urban Non-private Sector from 2004 to 2023

2.2.2.2 Analysis of Wage Trends by Sectors in Urban Private Units

Between 2009 and 2023, the nominal average wages in all sectors of urban private units showed an overall upward trend. In 2009, the top three sectors by wage level were Financial Intermediation (30,452 CNY), Information Transmission, Software and Information Technology (28,166 CNY), and Scientific Research and Technical Services (26,187 CNY). The bottom three were Agriculture, Forestry, Animal Husbandry and Fishery (14,585 CNY), Hotels and Catering Services (15,623 CNY), and Service to Households, Repair and Other Services (15,688 CNY). The ratio of the highest to the lowest wage among eighteen sectors was 2.09 times, compared to an average wage gap of 4.21 times among nineteen sectors in urban non-private units during the same period.

By 2023, the ranking of the top three sectors had changed to Information Transmission, Software and Information Technology (129,215 CNY), Financial Intermediation (124,812 CNY), and Scientific Research and Technical Services (82,277 CNY). Meanwhile, Agriculture, Forestry, Animal Husbandry and Fishery (44,465 CNY), Management of Water Conservancy, Environment and Public Facilities (47,504 CNY), and Service to Households, Repair and Other Services (49,907 CNY) still rank relatively low. The ratio of the highest to the lowest wage expanded to 2.91 times, still lower than the 3.99 times average wage gap among urban non-private sectors during the same period.

In terms of wage growth rates, the top three sectors were Information Transmission,

Software and Information Technology (11.50%), Manufacturing (10.71%), and Financial Intermediation (10.60%). The three sectors were Real Estate (7.15%), Education (7.20%), and Management of Water Conservancy, Environment and Public Facilities (7.54%). The difference between the fastest and slowest growth rates exceeded 4 percentage points, reflecting the uneven development among sectors influenced by factors such as intense competition, limited profit margins, slower development, or policy adjustments.

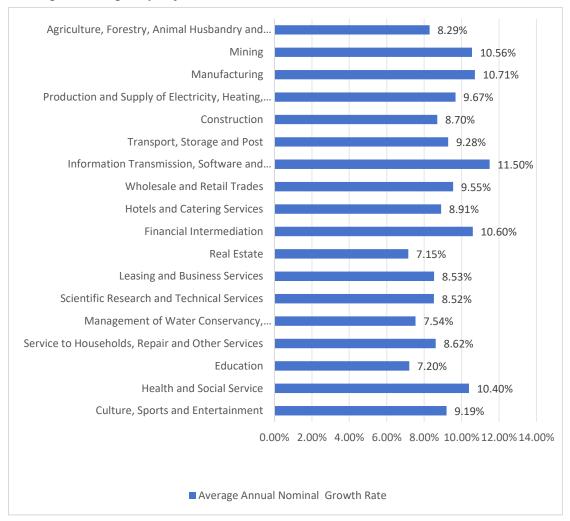


Figure 2-7 Nominal Annual Growth Rate of Average Wage in Urban

Private Sector from 2009 to 2023

2.2.3 Analysis of Wage Trends of employed persons by occupation(Position) in Enterprises Above Designated Size

Since 2013, China has published wage data by occupation [4]/position for enterprises above designated size^[5], categorized into five groups: covering middle -

million CNY or more. Wholesale and Retail Trades Above Designated Size: Wholesale businesses with an annual

[5] Industry above designated size refers to industrial legal entities with annual primary business revenue of 20

1

^[4] The classifiacaiton of occupation can be found in Part 3.1.2 of the attachment.

level and above management, professional and technical personnel, office workers and related personnel, personnel engaged in social production services and life services, and personnel engaged in manufacturing and related personnel.

Among these five occupational groups, middle - level and above management have consistently had the highest annual average wage, while personnel engaged in social production services and life services have had the lowest for most of the time. It intuitively reflects the significant differences in human capital among workers in different occupational categories. indicating a slight improvement in the income distribution pattern. In 2013, the annual average wage for middle - level and above management was 107,374 CNY, compared to 39,322 CNY for personnel engaged in social production services and life services, a difference of 2.73 times. By 2023, this gap had narrowed to 2.64 times. Additionally, due to the fastest - growing annual average wage for professional and technical personnel at 8.37%, the gap between them and middle - level and above management has also significantly decreased, from 1.70 times in 2013 to 1.41 times in 2023, reflecting a further shift in technology-based income distribution towards knowledge and technological factors.

In terms of growth rates, between 2013 and 2023, the average annual growth rates for office workers and related personnel, personnel engaged in social production services and life services, and personnel engaged in manufacturing and related personnel were relatively close, at 6.79%, 6.70%, and 6.54%, respectively. Professional and technical personnel had the fastest - growing annual average wage at 8.37%, significantly higher than other occupational groups. It reflects the strong demand for technical positions in the labor market in the new era of accelerated economic structural transformation and the rapid advancement of innovation-driven development strategies.

main business income of 20 million CNY or more, and retail businesses with an annual main business income of 5 million CNY or more. Hotels and Catering Services Above Designated Size: Legal entities in the accommodation and catering industry with an annual main business income of 2 million CNY or more. Real Estate Development and Management: All legal entities engaged in real estate development and management activities. Services Above Designated Size: Service legal entities with an annual operating income of 20 million CNY or more, including: transportation, storage, and postal services; information transmission, software, and information technology services; water conservancy, environment, and public facility management; and the health industry. Service legal entities with an annual operating income of 10 million CNY or more, including: leasing and business services; scientific research and technical services; education; and four subcategories of the real estate industry: property management, real estate intermediary services, real estate leasing operations, and other real estate activities. Service legal entities with an annual operating income of 5 million CNY or more, including: household services, repair, and other services; culture, sports, and entertainment; and social work.

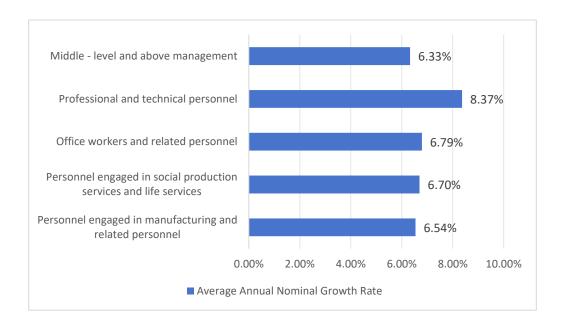


Figure 2-8 Nominal Annual Growth of Average Wage Rate by Occupation

from 2013 to 2023

2.3 Analysis of the Trend in Labour Compensation

Labour Compensation is the total payment of various forms to labours for the productive activities they are engaged in. It includes the compensation earned by employees in cash or in kind. It mainly includes: wages, bonuses and allowances, subsidies, social insurance paid by employer for its staff, supplementary social insurance, housing fund, the pension for the employees of the administrative institution, other forms of welfare and remuneration provided by the employers for its employees. Labour compensation, together with Net Taxes on Production, Property Income, and Operating Surplus, constitutes an indicator of Gross Primary Income in national accounting [6]. The share of labour compensation in the Gross Primary Income in national accounting (hereinafter referred to as Labour's Share) is generally used to reflect the proportion of labour factors in newly created income.

In the past two decades, with the continuous expansion of the economy, labour compensation has shown a steady growth trend. From 2004 to 2022, labour compensation increased from 7525.18 billion CNY to 63427.27 billion CNY, with an average annual growth rate of 12.57%. This rate is higher than the average annual nominal growth rate of gross primary income (11.83%) over the same period, indicating the importance of labour compensation in primary distribution.

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^[6] The data on labour compensation and its explanations can be found in Attachment 3.2, with the data most recently updated to 2022.

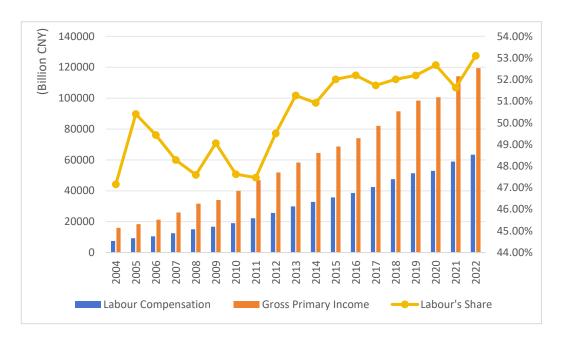


Figure 2-9 Labour Compensation and Labour's Share from 2004 to 2022

In terms of labour's share, despite some fluctuations in certain years, it has generally increased from 47.15% in 2004 to 53.10% in 2022. Although there have been fluctuations in certain years, the overall trend has been upward, which is different from the world reducing trend. A very recent academic study indicates that the labor share increases in response to a decline in productivity dispersion between 2009 and 2015 in China's manufacturing industry. [7]

2.4 Empirical Analysis of the Relationship between Labour Productivity and Labour Earnings

2.4.1 Empirical Model

Improving labour productivity is an important mechanism for increasing labour earnings. This section aims to conduct an empirical test of the relationship between the two. The model is specified as follows:

$$InINC_{it} \, = \, \alpha_0 \, + \alpha_1 InPRO_{it} + \sum \alpha_j \, X^j_{it} + u_i + \delta_t + \epsilon_{it} \hspace{0.5cm} (2-1)$$

In the model, lnINC is the dependent variable—labour earnings, measured as the logarithm of the ratio of real labour compensation (based on 2004) to the number of employed persons; lnPRO is the core independent variable—labour productivity, measured as the logarithm of real labour productivity (based on 2004); X represents a set of other control variables, used to eliminate the impact of heterogeneous economic environments. Considering that education and innovation have a profound impact on

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^[7] Zhao Wen, Xiao Shuangshuang. Productivity Distribution and the Labor Share: Theoretical and Empirical Analysis [J]. Finance & Trade Economics, 2025, 46(03): 110-126.(赵文,肖双双.生产率分布与劳动报酬份额: 理论与经验分析[J].财贸经济,2025,46(03):110-126.)

labour productivity, this section selects the level of education (lnEDU), measured by the natural logarithm of the number of students enrolled in higher education institutions, and the level of innovation (lnCRE), measured by the natural logarithm of the number of patent applications. ε is the random disturbance term.

2.4.2 Analysis of Correlation Coefficients

Before conducting the empirical analysis, it is necessary to analyze the correlation between labour earnings and labour productivity. The Pearson correlation coefficient is a common method for measuring the correlation between variables, defined as the ratio of the covariance to the standard deviation of two variables, with its value ranging between -1 and 1. The specific formula is:

$$\rho_{X,Y} = \frac{cov(X,Y)}{\sigma_X \sigma_Y} = \frac{E((X-EX)(Y-EY))}{\sigma_X \sigma_Y} \qquad (2-2)$$
 Using formula (2-2), the correlation between labour earnings and labour

Using formula (2-2), the correlation between labour earnings and labour productivity at the national level in China was measured, and the Pearson correlation coefficient for the period 2004–2022 was:

	In <i>INC</i>	InPRO	ln <i>EDU</i>	In <i>CRE</i>
InINC	1.0000			
In <i>PRO</i>	0.9991	1.0000		
${\sf In} EDU$	0.9830	0.9852	1.0000	
In <i>CRE</i>	0.9963	0.9953	0.9749	1.0000

Table 2-1 Pearson Correlation Coefficient

As can be seen from the table, there is a significant positive correlation between labour earnings and labour productivity from 2004 to 2022, with a Pearson correlation coefficient as high as 0.9991. There are also significant positive correlations between the level of education, the level of innovation, and both labour earnings and labour productivity.

Furthermore, the correlation between labour earnings and labour productivity was calculated for different periods, as shown in the table below:

 Period
 2004-2022
 2004-2013
 2013-2022

 Correlation
Coefficient
 0.9991
 0.9975
 0.9987

Table 2-2 Pearson Correlation Coefficients by Period

As can be seen from the table, the Pearson correlation coefficient between labour

earnings and labour productivity was 0.9975 for the period 2004–2013, and this value increased to 0.9987 for the period 2013–2022. This indicates to some extent that the synchronization between changes in labour earnings and labour productivity in China has improved.

Furthermore, the relationship between real labour productivity and real labour earnings at the national level was represented by a scatter plot and subjected to linear fitting. The scatter plot shows a significant linear correlation between real labour productivity and real labour earnings. Moreover, the fitted line after 2013 (in orange) has a steeper slope, indicating a greater synchronization between increases in real labour productivity and increases in real labour earnings. The scatter plot is as follows:

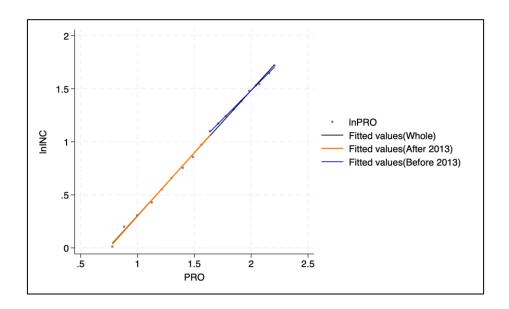


Figure 2-10 Scatter Plot of Real Labour Productivity

and Real Labour Earnings

2.4.3 Empirical Results Analysis of the Relationship between Labour Productivity and Labour Earnings

This section conducts an empirical analysis using the labour compensation per employed person data and labour productivity data from the 31 provinces in China. Since the provincial-level labour compensation data has not been publicly released after 2017, the data used here covers the period from 2004 to 2017.

Meaning of Sample Standard Variable Mean Maximum Minimum Time Span Variable Size Deviation Logarithm of **lnINC** Labour 434 0.690 0.548 2.269 -0.9482004-2017 Earnings

Table 2-3 Descriptive Statistics

	Logarithm of						
lnPRO	Labour	434	1.444	0.613	3.103	-0.124	2004-2017
	Productivity						
	Logarithm of						
lnEDU	Education	434	3.927	0.992	5.306	0.385	2004-2017
	Level						
	Logarithm of						
lnCRE	Innovation	434	9.586	1.786	13.350	4.127	2004-2017
	Level						

The model estimation of Equation (2-1) is conducted in this section, and the estimation results with the gradual inclusion of control variables are presented as follows.

Table 2-4 Estimation Results of the Benchmark Model

	(1)	(2)	(3)	(4)	(5)
lnPRO	1.045***	0.648***	0.849***	0.643***	0.456***
	(87.159)	(15.912)	(19.187)	(13.566)	(6.904)
1 554			0.057	-0.085*	-0.062
lnEDU			(1.276)	(-1.835)	(-1.357)
			0.067***	0.036**	0.030**
lnCRE			(4.692)	(2.420)	(2.027)
lnPRO*lnEDU					0.043***
					(3.997)
Constant	-0.819***	-0.503***	-1.397***	-0.505***	-0.505***
	(-45.971)	(-13.607)	(-9.027)	(-2.961)	(-3.016)
Individual	YES	YES	YES	YES	YES
Fixed Effects					
Time Fixed	NO	YES	NO	YES	YES
Effects					
Sample Size	434	434	434	434	434
\mathbb{R}^2	0.950	0.962	0.953	0.963	0.965

Note: *, *, and *** indicate significance at the 10%, 5%, and 1% confidence levels, respectively. The values in parentheses are the corresponding t-values, which apply to the following tables as well.

As shown in Table, Column (1) presents the regression results with only individual fixed effects controlled. The results indicate that an increase in labour productivity has a positive impact on the increase in labour earnings, which is significant at the 1% level. Column (2) additionally incorporates controls for both time and province fixed effects, and the results similarly demonstrate that an increase in labour productivity is conducive to promoting an increase in labour earnings. Column (3) presents the

regression results after controlling for other economic and social variables based on Column (1), and the results show that the positive impact of increased labour productivity on increased labour earnings remains significant. Column (4) additionally incorporates controls for both time and province fixed effects, and the results still show the existence of a positive promoting effect. Therefore, an increase in labour productivity has a significant positive impact on the increase in labour earnings. Column 5 goes on Column 4 by further adding an interaction term between productivity and education (lnPRO * lnEDU). The results show that an increase in labour productivity has a positive impact on the increase in labour earnings, and higher education levels magnify the effect of productivity on earnings. This finding is particularly pertinent for South - South and Triangular Cooperation (SSTC) policy learning and for countries aiming to harmonize human capital investments with inclusive growth strategies.

Furthermore, the relationship between labour productivity and labour earnings was estimated for different periods, with the results presented as follow.

Table 2-5 Estimation Results by Period

	(1)	(2)
1 ppo	0.432***	0.689***
lnPRO	(6.414)	(8.251)
1 EDII	-0.082	0.099
lnEDU	(-1.279)	(1.253)
1 CDE	0.034*	-0.046**
lnCRE	(1.776)	(-2.544)
	-0.319	-0.144
Constant	(-1.247)	(-0.453)
Individual Fixed Effects	YES	YES
Time Fixed Effects	YES	YES
Sample Size	279	155
\mathbb{R}^2	0.953	0.905

Column (1) presents the impact of changes in labour productivity on labour earnings from 2004 to 2012. The model results show that, during this period, increases in labour productivity had a significant impact on increases in labour earnings, with a regression coefficient (elasticity coefficient) of 0.432.

Column (2) presents the impact of changes in labour productivity on labour earnings after 2013. The model results indicate that, during this period, increases in labour productivity had a significant positive impact on increases in labour earnings, with a regression coefficient (elasticity coefficient) of 0.689, which is a substantial increase compared to the previous period. This suggests that, to some extent, as China's economic and social development has entered a new era, the changes in labour earnings and labour productivity have become more synchronized.

Additionally, multicollinearity test was conducted on the variables in Column 1 and Column 2. The VIF (Variance Inflation Factor) values of the relevant variables in Column 1 range from 2.38 to 9.09, and those in Column 2 range from 1.95 to 7.81. Since none of these VIF values exceed the critical value of 10, it can be concluded that there is no severe multicollinearity problem.

2.4.4 Main Findings

Through the analysis and empirical tests of the relationship between labour earnings and labour productivity in this section, the following main conclusions are drawn:

- --Correlation Analysis: The analysis shows that there is a significant positive correlation between labour earnings and labour productivity from 2004 to 2022.
- --Benchmark Model Results: After controlling major influencing factors, the twoway fixed-effects model indicates that increases in labour productivity have a significant positive impact on increases in labour earnings.

--Empirical Results by Period: The empirical analysis demonstrates that increases in labour productivity had a significant positive impact on increases in labour earnings from 2004 to 2012. After 2013, the positive impact of increases in labour productivity on increases in labour earnings further intensified, indicating a stronger synchronization between changes in labour earnings and labour productivity. This is a reflection of the inluence of the continuous deepening of the new development philosophy and the steady advancement of the high-quality development process under the changing conditons of reducing labor supply amount and structural imbalance of China's labor market, China's market mechanism has become more efficient, and at the same time, macro wage guiding policies have taken effect, jointly promoting the enhancement of synchronization between labor productivity and labour earnings.

Some prominent Chinese scholars have also conducted new research on international comparabilityon labor productivity or economic development between the BRICS and other developed countries. Some latest findings are listed as follows:

Core Findings of Some Academic Research

Viewpoint 1: China's labour productivity increased from 7,113 *international dollars* in 2000 to 36,632 *international dollars* in 2020, with an average annual growth rate of 8.5%, slightly higher than the growth rate of per capita GDP. During the same period, the average annual increase in labor productivity in the United States was only 1.4%. The ratio of China's labor productivity to that of the United States increased from 6.4% in 2000 to 25% in 2020. China's economic catch-up with the United States was prominently manifested in three aspects: economic aggregate (GDP), economic per capita (per capita GDP), and labour productivity (GDP per worker). Among these, the most crucial and fundamental aspect is the catch-up in labour productivity, which has driven the catch-up in economic per capita and economic aggregate.

Source: Hu Angang. Favorable Development Conditions and Prospects for China's Journey Towards a Middle-Income Developed Country (2000-2035) [J]. Journal of Beijing University of Technology (Social Sciences Edition), 2025, 25(02): 1-14.

胡鞍钢. 中国迈向中等发达国家的有利发展条件与展望 (2000—2035年) [J]. 北京工业大学学报(社会科学版), 2025, 25(02):1-14.

Viewpoint 2: Compared with the middle-income countries and BRICS countries, China's overall economic labour productivity has surpassed the average level of these countries, but the manufacturing labour productivity remains relatively low. Compared with the high-income countries, there is still a significant gap in China's labour productivity, although the catch-up speed is relatively fast. In 2005, China's overall economic labour productivity was only 11.9% of that of high-income countries and 10.7% of the G7. By 2017, these ratios had grown to 32.9% and 30.9%, respectively. The gap between China's traditional service industry labour productivity and that of high-income countries is the smallest. In 2017, it reached 98.4% and 113.5% of high-income countries and G7, respectively.

Compared with the United States, China's overall economic labour productivity in 2005 was equivalent to 9.2% of that of the United States. This ratio increased to 19.3% in 2011 and further to 26.8% in 2017, exceeding one-fifth.

Source: Guo Kaiming, Luo Zhangquan, Hang Jing. International Comparison and Long-term Prospects of China's Labour Productivity (1992-2035) [J]. China Economic Quarterly, 2023, 23(06): 2194-2212.

郭凯明, 罗章权, 杭静. 中国劳动生产率的国际比较与远景展望 (1992—2035) [J]. 经济学(季刊), 2023, 23 (06): 2194-2212.

Viewpoint 3: From 1990 to 2019, the BRICS countries have all achieved significant accomplishments in economic development. During the period of 2010 to 2019, Brazil's economy has more than quadrupled, India's has nearly quintupled, China's has increased fourteenfold, and South Africa's has more than tripled. The situation improves further when compared based on Purchasing Power Parity (PPP). Today, China has become the world's second-largest economy, followed by India in fourth place, Russia in sixth place, and Brazil in eighth place. These profound changes reflect the potential and importance of the BRICS countries in reshaping the global financial order, and the BRICS countries are recognized as the engine of the global economic recovery process.

In addition, all BRICS countries have now become active participants in important international and multilateral institutions such as the World Trade Organization, the United Nations, the G20, and the United Nations Framework Convention on Climate Change. Their significance in the global economy and world politics is also reflected through various other indicators, such as trends in foreign direct investment inflows and outflows, as well as trade openness, foreign exchange reserves, and labour, demonstrating that the BRICS countries have become a

formidable force that cannot be ignored in the world's economic and political processes.

Source: Zhao Huixin. "The Practical Challenges and Future Directions of the BRICS Cooperation Mechanism" [J]. Journal of Social Science of Harbin Normal University, 2024, 15(03): 32-37.

赵卉心. 金砖国家合作机制的现实挑战与未来走向[J]. 哈尔滨师范大学社会科学学报, 2024, 15(03):32-37.

Viewpoint 4: From 2010 to 2018, China's labor productivity maintained a stable increase, with the hourly labor productivity in the manufacturing industry rising from \$10.27 in 2010 to \$13.10 in 2018, an increase of 27.55%. The average annual growth rate of 6.05% is also ahead of major countries in the world. In 2018, the hourly labor productivity of China's manufacturing industry has significantly exceeded that of BRICS and ASEAN countries, but the gap is still large compared to developed countries. The hourly labor productivity of the manufacturing industry in the United States is 4.24 times that of China; Germany is 4.16 times that of China. The monopoly advantage of developed countries in high-end manufacturing industries such as technology and capital is an important reason why their labor productivity is significantly higher than that of developing countries.

In 2018, China's labor productivity was at the forefront among the BRICS countries. Among other BRICS countries, South Africa and Brazil have relatively high labor productivity, above \$10; Russia is at an intermediate level; India has a lower labor productivity of only \$2.52.

From the perspective of changing trends, China's labor productivity level is also in an advantageous position, with a rate 1.75 times that of the second ranked India. Russia experienced a decline in 2013 and rebounded slightly after 2016, showing an overall U-shaped trend; South Africa and Brazil have shown an overall downward trend, mainly due to their sustained economic downturn and slow growth in manufacturing value added.

Improving labor productivity is an important factor in enhancing China's labor cost advantage, and it is also the key to China's shift from relying on cheap labor to relying on a high productivity-oriented growth model. At present, China's labor productivity lags behind developed countries, indicating that China still lacks high-quality labor talents in the high-end fields of knowledge intensive and high value-added manufacturing. The next step is to increase the quality training of workers, formulate policies at the national level to increase investment in vocational skills education, improve vocational education models, enhance the skills and qualities of industrial workers, promote sustained growth in future labor productivity, offset the adverse effects of increased labor remuneration on the cost competitiveness of Chinese enterprises, shift from the "demographic dividend" to the "talent dividend", and consolidate China's advantageous position in labor cost efficiency.

Source: Zhang Gong. Evaluation of "Made in China" Labor Costs—Analysis

Based on Labor Factor Cost Competitiveness Index [J]. Price: Theory & Practice, 2021, (09): 92-97.

张弓."中国制造"劳动力成本的评估——基于劳动力要素成本竞争力指标的分析[J].价格理论与实践,2021,(09):92-97.

PART B

3. Case Study: the Chinese Experience in Driving Enterprises to Establish Skill-oriented Compensation Systems, Achieving Decent Work and Synchronized Growth in Labour Productivity

3.1 Background

Productivity and Decent Work are closely interconnected. Enhanced productivity provides the material foundation for decent work, while decent work, through safeguarding workers' rights, improving skills, and promoting social equity, fuels sustained productivity growth. It is necessary to establish institutional mechanisms to maintain a virtuous cycle between productivity advancement and the creation of decent jobs opportunities.

The above analysis indicates that China's labour productivity has been continuously improving, and the wage levels of urban employed persons have gradually increased. However, in the past, issues such as the low income levels of skilled workers, the lack of career development pathways, and societal prejudices against "blue-collar" occupations have made the shortage of skilled workers increasingly prominent, which is detrimental to the cultivation of a new type of industrial workforce. To address this, Chinese government introduced skill-oriented incentive mechanisms to enhance the attractiveness of frontline production and service positions to workers since around 2017, aiming to build a workforce that is knowledgeable, skilled, and innovative, ensuring that those who work harder earn more, those with higher skills earn more, and innovators earn more. It also emphasized offering better treatment to skilled workers as a crucial measure to expand the middle-income group and further improve the wage distribution system. In addition, it is also expected to empower the advancement of skill-driven enterprises.

Subsequently, the Chinese government has continuously issued several documents to continuously enhance the cultivation and incentive efforts for skilled talents, empowering the advancement of skill-driven enterprises.

The latest 2025 Chinese Government Work Report (presented by the State Council) explicitly proposes to accelerate the establishment of skill-oriented compensation systems, ensuring that those who work harder earn more, those with higher skills earn more, and innovators earn more. The advancement of collective wage negotiations for skilled workers across all levels constitutes a vital mechanism for implementing skill-driven remuneration frameworks. Collective negotiation process incorporates skill proficiency and innovative contributions into wage structures, thereby operationalizing

skill-centric compensation principles in workplace practices.

The following case studies serve as SSTC-aligned learning tools, showcasing policies and enterprise strategies that could inform peer countries navigating similar development challenges.

3.2 Core Concepts

The wage system for skilled workers refers to wage standards based on job valuation, technical competency tiers, and performance metrics. Designed to dynamically adjust wage levels through skill development and achievement, this framework cultivates an incentive-driven culture where "more work brings more gain; higher skills yield higher pay; innovations generate greater rewards", thereby enhancing income distribution equity while elevating labour earnings.

Collective negotiations on skill-based wage refer to a formal process where employee representatives and enterprise management engage in negotiations to establish collective agreements regarding annual wage growth benchmarks for skilled workers, skill-linked allowances, special rewards for various honors, and innovation-and creation-based achievement bonuses, with the aim of enhancing workers' skills, translating competencies into income growth, and ultimately improving enterprise efficiency.

3.3 Key Measures

3.3.1 Macro/National Level

Government departments, trade unions, and enterprise representative organizations collaborate to formulate and implement systematic policy measures, supporting enterprises and employees in enhancing compensation incentive mechanisms through collective negotiations.

- (1) Legal framework. The Collective Contract Regulations (2004), formulated by the former Ministry of Labour and Social Security, designate labour compensation as a core component of collective negotiations, a principle consistently reflected in local legislation across China. In the latest round of regional legislative updates, Jiangsu Province—a hub of advanced manufacturing and economic development—explicitly stipulates in its Jiangsu Province Collective Negotiations Regulations (2023) that employers and employee representatives may engage in collective negotiations on matters such as technological innovation and skill-based wage systems, providing a legal foundation for skill-based wage negotiations. Further advancing this effort, the Taizhou City Provisions on Improving Technical Workers' Compensation and Expanding the Middle-Income Group (2024), approved by the Zhejiang Provincial People's Congress, represents China's first local regulation specifically targeting treatment for technical workers. This groundbreaking legislation legally institutionalizes skill-based wage increase mechanisms.
- (2) Policy promotion. The Chinese government has issued a series of policy documents to advance the development of industrial workforce and improve the treatment of skilled workers, such as *Opinions on Improving the Treatment of Technical Workers* (2018) and *Opinions on Deepening the Reform of Industrial Workforce*

Development (2024). The policies propose to improve the enterprise wage distribution system tailored to characteristics of technical workers, establish a regular wage growth mechanism for technical workers, actively promote wage collective negotiation, and guide enterprises to rationally set and achieve reasonable growth in technical workers' wage levels. The Guidelines on Promoting Skills-Driven Enterprise Development (2025), jointly issued by eight ministries including the Ministry of Human Resources and Social Security, National Development and Reform Commission, Ministry of Education, and Ministry of Industry and Information Technology, further emphasizes wage distribution should be inclined towards key positions, production frontlines, and urgently needed and scarce skilled workers. Additionally, policy documents formulated by the national tripartite partners(the Ministry of Human Resources and Social Security, All-China Federation of Trade Unions, China Enterprises Confederation/China Enterprise Directors Association, and The All-China Federation of Industry and Commerce), such as the Guidelines on Conducting Collective Negotiation to Establish and Improve the Remuneration Incentive Mechanism for Skilled Workers (2023) and the Notice on Vigorously Implementing Regional and Sectoral Collective Negotiations to Reasonably Determine Minimum Wages for Skilled Talents (2024), outline concrete measures to implement relevant policies, including key industries for negotiations, core content of negotiation, and measures to enhance negotiation quality.

- (3) Operational guidance. The Ministry of Human Resources and Social Security issued the Guidelines on Compensation Allocation for Skilled Technical Workers (2021), providing enterprises with detailed and actionable methodologies for structuring wages. The guidelines stipulate that skilled workers who master critical operational techniques, represent advanced professional expertise, or lead technical innovation projects may receive compensation levels comparable to the upper tier of engineering and technical personnel or equivalent to mid-level management positions. Top performers in their industries may even attain compensation packages on par with senior-level engineering/technical experts or executive management roles. Additionally, some local governments have developed sector-specific compensation guidelines tailored to priority industries and workforce segments, as well as operational manuals for collective wage negotiations targeting skilled workers. For example, the Guangdong Provincial Department of Human Resources and Social Security formulated the Guangdong Province Guidelines for Compensation Distribution of Skilled Workforce in the New Generation Electronic Information Industry and the Guangdong Province Guidelines for Skill-based Compensation Distribution for Bus Drivers. The Zhejiang tripartite partners formulated the Operational Guidelines for Enterprise Collective Negotiations on Skill-based Wage and the Guangxi tripartite partners issued the Guidelines on Skill-based Wage Collective Negotiations. Taizhou City in Zhejiang Province also issued the Sector-level Skill-based Wage Collective Negotiation Operational Specifications as a local standard.
- (4) Information services. Local human resources and social security departments at various levels based on actual conditions, regularly release updated wage benchmarks for skilled workers. In regions with adequate capacity, these benchmarks are further categorized by occupation (job category/position) and skill level, providing

reference data for enterprises and skilled workers to negotiate wages. For example, Provinces like Jiangsu and Zhejiang publish wage benchmarks for skilled workers by occupation (position)at the province-level, and sector-specific wage data for locally prioritized industries at the municipal level. Shanghai has issued market-driven wage benchmarks for highly skilled workers in three strategic sectors: integrated circuits, biomedicine, and artificial intelligence, incentivizing the clustering of advanced skills in these key industries.

3.3.2 Sector Level

In industry-dense regions, sectoral trade unions acting on behalf of workers engage in collective negotiations with corresponding employer associations or influential industry-leading enterprises to establish skill-based wage standards for technical workers across the sector. For micro and small enterprises (MSEs), negotiating individually with trade unions may face challenges such as high costs, a lack of negotiation expertise, and concerns that enterprise-level negotiations could raise labor costs and weaken competitive advantages. Sectoral collective negotiations helps centralize resources and reduces the financial burden on individual enterprises. By joining employer organizations, MSEs gain access to legal advice, training, and resources to better engage in negotiations. Sectoral agreements create unified labor benchmarks across the sector, promoting fair competition and preventing a "race to the bottom" in labor conditions. Sector-wide negotiations amplify the collective voice of workers and encourage SME engagement, while the broad coverage of negotiated outcomes helps enhance regional talent attraction by improving compensation and benefits for skilled professionals. In alignment with the 2024 Notice issued by the national tripartite partners, priority sectors for industry-and region-wide wage negotiations include manufacturing, construction, mining, hospitality, domestic services, as well as locally dominant and strategically prioritized industries. Negotiations are primarily conducted at the county and sub-county level, as well as in industrial parks, urban neighborhoods and townships, where industries are concentrated. The key focus of collective negotiation centers is on matters such as the minimum wage standards and basic technical allowances for skilled workers within specific industries or geographic regions.

Case 1: Skill-based Wage Collective Negotiation in Local Glasses Industry

Danyang City in Jiangsu Province is a global hub for lens manufacturing, hosting over 1,600 enterprises in the eyewear industry and related sectors, with a workforce exceeding 50,000. Through multi-round collective negotiations, employee and employer representatives have established the Annual Skill-Oriented Wage Guidelines for Danyang's Eyewear Industry, which include six key provisions:

- ① Major Achievement Award: Employees involved in successfully implemented projects shall receive rewards proportional to the cost-saving and efficiency gains generated in the achievement year.
 - 2 Recognition for Innovations: Employees will be awarded for "Five Micro-

Innovation Awards" (small inventions, creations, renovations, designs, or proposals) or for Advanced Operational Methods Awards.

- ③ Skill-Grade-Based Allowances: Subsidy benchmarks differentiated by technical competency tiers are defined.
- 4 Negotiated Compensation Standards: Annual salary frameworks are established for high-skilled leading talents and specialized technical experts at different tiers.
- ⑤ Specialized Incentives: Specific criteria for awards such as Labour Competition Prizes are formalized.
- © Training Fund Allocation: Enterprises shall allocate education and training funds equivalent to 3% of their total payroll, with at least 5% of such funds dedicated to frontline workers' education and training.

3.3.3 Micro Level

Enterprises can conduct negotiations with employee representatives on skill-oriented compensation based on their own operating conditions, job demands and profit levels. Some enterprises sign special agreements on technological innovation and skill-based talent wages, while others also negotiate other content of concern to employees, such as wages, benefits, occupational safety and health, and women's rights protection, and sign comprehensive collective contracts.

Case 2: Company Collective Contract on Technological Innovation

Company A is an electronics manufacturing enterprise with over 400 employees, 51% of whom are production operators. In 2018, the company signed its first Special Collective Contract on Employee Technological Innovation, which allows employees to participate in profit sharing based on their technological innovation achievements. Key provisions include:

- ① For traditional innovation teams (categorized as on-site teams, management teams, service-oriented teams or task forces), rewards for profit growth generated by improvements in existing product processes or engineering projects are set at 5% of the net profit from the relevant product or project.
- ② For breakthrough innovation teams, rewards are calculated based on the profit generated by the innovation. Over five consecutive years, the company will allocate 12%, 10%, 8%, 6%, and 2% of the project's annual accounting profit, respectively.
- ③ In addition to profit-based incentives, the company conducts an annual evaluation of technological innovation teams. Exceptional and outstanding teams, as well as exemplary and distinguished individuals, receive additional monetary awards.

3.4 Policy Systems and Social Synergy

Assessing employees' skill proficiency and streamlining career development pathways for skilled workers form the foundational basis for conducting collective wage negotiations and achieving skill-based pay increases. The Chinese government has issued multiple policy documents such as the *Guiding Opinions on Nationwide*

Implementation of the New-Type Apprenticeship System with Chinese Characteristics to Strengthen Skilled Workers Training (2021), the Opinions on Improving the Vocational Skill Grading System for Skilled Workers in the New Era (Trial Implementation) (2022), the Guiding Opinions on Advancing Skill-Driven Enterprise Development (2025), leveraging the collaborative synergy among government, enterprises, and society to forge a skills ecosystem. This ecosystem is driven by industrial chain anchor enterprises, sector-leading corporations, and specialized, sophisticated, differentiated, and innovative SMEs (SSDI-SMEs, a governmentdesignated category for niche innovation leaders), with coordinated participation from higher education institutions, vocational colleges (technical institutes), training providers, skills assessment agencies, and employment and HR service agencies, ensuring seamless integration across industry, education, and evaluation. These documents provide systematic deployment across all stages of enterprise skilled personnel development, including training, utilization, evaluation and motivation, to foster a virtuous cycle were workforce upskilling drives wage growth and enterprise competitiveness. Key measures include: full implementation of the new-type apprenticeship system; establishment of the "New Eight-Tier Technical Worker Hierarchy", extending the traditional five-tier hierarchy to eight grades (apprentice worker, junior worker, intermediate worker, senior worker, technician, senior technician, special-grade technician, and chief technician); enterprise empowerment by supporting corporate-led skills training programs, enabling autonomous vocational skills evaluations, setting up skills-oriented performance pay structures and etc.

3.5 Achievements

The scope and content of collective wage negotiations for skilled workers have been gradually expanded, yielding remarkable results. This negotiation mechanism not only incentivizes continuous skill enhancement among workers but also drives technological innovation, optimizes production costs, and elevates enterprise labour productivity. Through enhanced product quality and service improvements, it has emerged as a catalytic force propelling high-quality economic development. Simultaneously, it has optimized enterprises' compensation systems and increased employee income, allowing workers to share the economic benefits generated by productivity improvements. This approach facilitates the establishment of harmonious and stable labour relations, thereby promoting enterprise development through quality enhancement. Ultimately, it creates a virtuous cycle of "enhancing workers' skills, translating competencies into income growth, and ultimately improving enterprise efficiency" .For instance, a refrigeration technology company achieved 5% efficiency gains in production lines with 8% reduction in time-related costs, while workers' income grew by 8-12%. A civil engineering firm realized 20% monthly output value growth per project alongside 350,000 CNY construction cost savings, with technical workers' average monthly earnings increasing over 1,000 CNY (representing 20% growth). An automotive parts manufacturer boosted material utilization rate by 12%, cumulatively saving 15 million CNY in operational costs. This drove 40% year-on-year production value growth, accompanied by 28.5% average salary increases across its workforce.

From China's effective implementation of collective wage negotiation practices for skilled workers, the following experiences can be drawn:

Firstly, restructuring the collective negotiation model through "skill-based pay determination" to build a sustainable ecosystem where "more work earns more, higher skills earn more, and innovation earns more". Traditional wage negotiations often focus on salary adjustments, which tend to result in short-term zero-sum outcomes. By incorporating quantifiable indicators such as technical certification, innovation commercialization, and skill contributions, skilled worker compensation negotiations integrate the pay system with enterprise development and employee career growth. This transforms collective negotiations from a "zero-sum game" into "value co-creation and shared benefit allocation".

Secondly, utilizing instrumental documents such as the *Guidelines on Compensation Allocation for Skilled Technical Workers* and the *Operational Guidelines for Enterprise Collective Negotiations on Skill-based Wage*, combined with benchmark enterprise cases and industry best practices, a comprehensive "policy interpretation-methodology guidance-practical examples" knowledge system has been established. Through promotional efforts via online media, offline training sessions, and other methods, this approach effectively addresses the challenges of enterprises' reluctance to negotiate and lack of expertise in negotiations, providing robust support for enterprises to conduct collective negotiations on skill-based compensation.

PART C

4. Policy Implications

From the analysis above, it can be seen that over the past two decades of China's development, wages/labour earnings have not only achieved sustained and relatively rapid growth but have also become more closely linked with the improvement of labour productivity, forming a good trend of economic development and employment quality advancing together, with equal emphasis on economic efficiency and decent work. This has been the result of the coordinated efforts of industry, employment, income distribution, fiscal and social security policies. To maintain and develop this positive trend, and to promote and create a productivity system conducive to decent work more prominently in the BRICS countries and beyond, two initiatives are proposed to the SSTC mechanism of BRICS countries, and some suggestions are made to the ILO to better carry out system platform construction.

4.1 Explore the Space for Improving Labour Productivity

4.1.1 Focus on driving innovation, optimizing and upgrading industries, improving the quality of workers, implementing comprehensive policies, and promoting balanced improvement of labor productivity between industries or sectors. Promote the organic integration and collaborative linkage of industrial factors, comprehensively improve the industrial system, and consolidate the industrial

foundation. Accelerate the transformation and upgrading of traditional industries, by increasing policy support and capital investment, promoting production automation and intelligence, deeply exploring and releasing the empowering potential of artificial intelligence, and enhancing competitiveness. Continuously promote the construction of a unified domestic market, open up channels for the flow of regional and industry resources, create a fair, transparent, and efficient market environment, stimulate enterprises' independent innovation drive, guide enterprises to increase investment in intelligent manufacturing, digital transformation, and green technology, promote process transformation and product upgrading, form a virtuous cycle of technological innovation and industrial upgrading, promote various industries to improve labor productivity levels, narrow productivity gaps, and thereby increase the proportion of labor remuneration.

4.1.2 Foster the Alignment between Educational Provision and Labour Market Demands. Drive a steady increase in labour productivity through talent training and promote synergy among industries and sectors. Adapt to the new round of technological revolution and industrial transformation, scientifically assess the development trends of human resources, and comprehensively enhance the employment and entrepreneurial capabilities of workers to meet the needs of highquality economic development. Conduct large-scale vocational skills training and fully implement new apprenticeship systems in enterprises to establish a lifelong skills training system that spans the entire career trajectory of workers, integrating learning with professional development across all employment stages. Improve policies for the development of technical education, deepen cooperation between schools and enterprises, comprehensively carry out integrated curriculum reforms, strengthen disciplinary development and teaching materials development, and enhance capacity building for teaching faculty. Promote career exploration, awareness, and experiential learning in the general high school stage. Additionally, encourage horizontal cooperation across BRICS to co-develop regional skills frameworks, conduct joint foresight research (e.g., on AI and digital wages), and harmonize social dialogue tools to enhance decent work outcomes.

4.1.3 Promote the coordinated linkage between economic and social development and labor market performance. Promote the effective improvement of employment quality and reasonable growth of quantity, promote the realization of stable work, reasonable income, reliable guarantee, occupational safety, etc. for workers, and provide high-quality employment support for the improvement of labor productivity. Promote the coordinated efforts of fiscal, monetary, industrial, price and other policies with labor market policies, and enhance the employment driving force for development. Continuously promote the formation of a situation with sufficient employment opportunities, fair employment environment, optimized employment structure, efficient matching of people and positions, and harmonious labor relations, and improve the system integration, coordination and linkage, digital empowerment, scientific management, and legal guarantee to promote employment.

- 4.2 Anchor Labour Earnings as the Core Driver to Foster a Virtuous Cycle between Decent Work and Labour Productivity Growth
- 4.2.1 Improve Wage Determination and Normal Growth Mechanisms: Promote the establishment of a wage determination and adjustment mechanism that is in line with the development trend of the economy and society, conforms to modern enterprise management standards, and complies with market rules to enhance the vitality of market entities and distribution efficiency. Focus on promoting collective wage negotiations in private enterprises and small- and medium-sized enterprises, expanding their coverage and improving quality. Guide enterprises to correctly understand and evaluate the contributions of labour, management, technology, skills, knowledge, and other factors, and distribute according to contributions, increasing the labour remuneration of workers, especially frontline workers, and encouraging enterprises to create high-income positions in innovation and entrepreneurship. Continuously improving the quality and efficiency of government salary information public services, strengthening the guiding role of salary information, and providing guidance for industrial transformation and talent attraction.
- **4.2.2 Enhance Skill-based Incentives in Wage Distribution**: Relying on industry associations, trade unions, and leading enterprises, promote enterprises to establish clear job skill standards based on the skill requirements of different positions, and design reasonable compensation structures and career progression pathway that reflect workers' capabilities, technical levels, and job values of skilled talents to ensure that skilled talents have better career development space and economic returns within enterprises. In addition, vigorously strengthen the negotiation mechanism for skill-based talent grade wages, give full play to the positive role of collective bargaining in optimizing the remuneration packages of skilled talents, and promote the formation of a consensus of interests between enterprises and skilled talents to achieve win-win development for both parties.
- **4.2.3 Strengthen the Protection for Workers of Flexible and Informal Employment**: In response to the challenges brought by flexible, complex and diversified employment forms in the digital age, strengthen corporate labour management guidance and oversight by actively implementing guidelines to safeguard the rights and interests of workers in new employment forms, guide platform companies and partner firms to establish labour contracts or written agreements with workers, reasonably determine labour remuneration, scientifically arrange working hours, and fairly formulate platform labour rules and algorithm to continuously improve compliance with laws and regulations. Strengthening the construction of the gig labour market while steadily elevating public service guarantees to improve workers' working and living conditions.
- **4.2.4 Strengthen Labour Relations Consultation and Coordination Mechanisms**: Promote collaborative governance of labour relations, deepen the multichannel labour dispute resolution, continuously enhance the capacity for labour relations governance, strive to achieve harmonious and stable labour relations, thereby promoting decent work for a broader range of workers.

4.3 Suggestions to the ILO on Promoting the Ecosystem

- **4.3.1 Establish the Knowledge Base Platform for the Ecosystem**. Collaborate with governments and research institutions from various countries to continuously expand the sharing of core data on decent work, such as labor productivity and wage income, within the existing framework of productivity ecosystem theory, providing a foundation for international comparison and appraising. Establish a dedicated chapter in the *Global Wage Report* and regularly release assessments of global labor productivity and income synchronicity. Establish a multi-party international exchange mechanism to provide decision-making support and technical guidance for policy formulation, policy research, and firm strategies in various countries, and promote the popularization and application of decent work standards worldwide.
- 4.3.2 Comprehensively Deepen Research in the Field of Decent Work: Further clarify the connotation of "decent work" and improve a multi-dimensional indicator system covering income distribution, labour protection, career development, working environment, and social participation to provide a referenceable and operational standard for scientifically evaluating decent work. Deepen the construction of long-term mechanisms for cross-border joint research, jointly explore and promote successful experiences and best practices in promoting decent work globally, transform these achievements into policy toolkits and incorporate into the ILO related training curriculum system for countries to learn from and replicate in localized practices, promote experience sharing and policy improvement among countries, promote the continuous optimization of the theoretical and practical framework of the decent work ecosystem, and continuously deepen the understanding, comprehension, and application of the Ecosystem.
- **4.3.3 Deepen forward-looking analysis and multilateral cooperation.** Organize cross-border research on the profound impact of emerging fields such as digital economy, platform economy, automation, and artificial intelligence on the labor market, and explore innovative paths to safeguard workers' rights and achieve reasonable income distribution in the new situation.

It is advisable for the ILO to further mainstream SSTC by leading regional cooperation pilots, building policy labs on productivity-wage alignment, and enabling peer-to-peer replication through toolkits and shared modelling resources. Deepen the promotion of South-South and triangular cooperation (SSTC), support developing countries in building a decent work ecosystem that adapts to their own characteristics and new economic forms through technical cooperation projects, and promote the coordinated improvement of global labor income and productivity.

Attachment

Data, Definitions and Sources

1.Labour productivity

Labour productivity refers to the total volume of output (measured in terms of Gross Domestic Product, GDP) produced per unit of labour (measured in terms of the number of employed persons) during a given time reference period. According to Decent Work Indicators prepared by the International Labour Organization, it can be calculated in either of two ways as shown below:

- ①Labour productivity(employed)= $\frac{\text{GDP}}{\text{Number of employed persons}}$, where the numerator and denominator refer to the same time reference period (e.g., the same year).

Labour productivity is calculated according to formula (1) in China.

1.1 Nominal values and real values

The nominal value of labour productivity is calculated at current prices, while the real value is adjusted using the GDP deflator.

1.2 Data Classification

Research on labour productivity has been carried out mainly at the aggregate economy and on the industry level. The classification of the Three Strata of Industry is based on *Industrial Classification for National Economic Activities* (GB/T 4754-2017) and the *Regulations on the Division of the Three Strata of Industry*.

1.3 Data Sources

Data on labour productivity are mainly derived from the *China Statistical Yearbook*.

Table 1 Labour Productivity from 2004 to 2023

(Thousand CNY/person)

Year	Nominal Labour Productivity	Real Labour Productivit y (based on 2004)	Nominal Labour Productivity in Primary Industry	Nominal Labour Productivity in Primary Industry	Nominal Labour Productivity in Tertiary Industry	Real Labour Productivity in Primary Industry (based on 2004)	Real Labour Productivity in Secondary Industry (based on 2004)	Real Labour Productivity in Tertiary Industry (based on 2004)
2004	21.8	21.8	6.0	44.5	30.4	6.0	44.5	30.4
2005	25.1	24.2	6.5	49.6	34.1	6.6	46.9	33.1
2006	29.3	27.1	7.3	55.2	39.3	7.2	50.0	36.7
2007	35.9	30.8	9.0	62.7	49.1	7.7	53.9	42.0
2008	42.2	33.7	10.8	73.0	56.6	8.4	58.1	45.2
2009	46.0	36.7	11.6	76.0	62.2	9.0	62.5	48.0
2010	54.2	40.5	13.8	87.7	71.9	9.7	68.0	51.7
2011	64.0	44.3	16.9	100.7	82.4	10.7	72.9	54.7
2012	70.6	47.7	19.2	105.3	92.3	11.6	76.6	58.4
2013	77.7	51.4	22.2	113.2	98.5	12.9	83.1	59.3
2014	84.3	55.2	24.9	120.3	104.4	14.3	89.3	61.0
2015	90.3	59.1	27.0	124.2	112.7	15.5	96.4	63.5
2016	97.9	63.2	28.8	132.5	122.8	16.4	103.8	66.8
2017	109.4	67.8	30.6	152.4	133.4	17.5	112.6	70.2
2018	121.3	72.6	33.2	170.8	145.1	18.9	121.3	73.8
2019	130.8	77.3	37.8	178.9	156.2	20.4	127.6	78.0
2020	135.0	79.4	44.0	177.3	160.5	22.1	128.4	79.3
2021	153.9	86.6	48.7	205.9	179.4	24.6	137.9	86.3
2022	164.2	90.7	49.9	221.6	196.1	24.7	145.1	92.7
2023	170.3	94.6	52.8	221.2	204.6	26.9	148.6	95.6

2. Employed Persons

In China's official statistics, employed persons refer to persons, aged 16 and over, who performed some work for compensation or business gains for one hour or more during the reference period; and persons who are temporarily absent from a job for the reasons of study, on holiday or suspension of work, etc.

2.1 Data Classification

Employed people are composed of urban employed persons and rural employed persons. Urban employed persons refer to persons employed in cities and towns. Rural employed persons refer to persons employed in areas other than cities and towns.

Among the urban employed persons, Employed Persons in Urban Non-Private Units (EPUN) refer to persons employed in urban non-private units/establishments. Urban non-private units/establishments include state-owned enterprises, urban collective enterprises, joint ventures, joint-stock enterprises, enterprises funded by foreign investors, enterprises funded by investors form Hong Kong-Macao-Taiwan, etc. Employed Persons in Urban Private Units (EPUP) refer to persons employed in urban private units/establishments. Urban private units include private limited liability companies, private joint stock limited companies, private partnerships and private sole proprietorships, etc. Urban Individual Employed Persons refer to individuals who hold an urban household registration or reside permanently in urban areas and are engaged in individual business operations.

Since 2020, China's State Administration for Market Regulation (SAMR) no longer separately counts the numbers of urban individual employed persons and combines the numbers of urban individuals employed persons with employed persons in urban private units/establishments and others.

2.2 Data Sources

Data on employed persons are mainly derived from the *China Statistical Yearbook*. Data on employed persons are projected based on the Labour Force Survey and the National Population Census, of which the data for non-census years have been revised based on the successive population censuses. The Labour Force Survey is conducted by using sampling methods.

Table 2 Number of Employed Persons from 2004 to 2023

(Thousand CNY)

Year	Employed Persons	Urban Employed Persons	EPUN	EPUP	Urban Individual Employed Persons
2004	742640	272930	110990	29940	25210
2005	746470	283890	114040	34580	27780
2006	749780	296300	117130	39540	30120
2007	753210	309530	120240	45810	33100
2008	755640	321030	121930	51240	36090
2009	758280	333220	125730	55440	42450

2010	761050	346870	130520	60710	44670
2011	761960	360030	144130	69120	52270
2012	762540	372870	152360	75570	56430
2013	763010	385270	181080	82420	61420
2014	763490	397030	182780	98570	70090
2015	763200	409160	180620	111800	78000
2016	762450	420510	178880	120830	86270
2017	760580	432080	176440	133270	93480
2018	757820	442920	172580	139520	104400
2019	754470	452490	171620	145670	116920
2020	750640	462710	170390		
2021	746520	467730	170150		
2022	733510	459310	167010		
2023	740410	470320	163680		

3. Labour Earnings

3.1 Wage

Total Wage Bill, or Gross Wage, refers to the total remuneration payment to all employed persons in various units/establishments during the reporting period (by quarter or by year), including hourly-paid wages, piece-rate wages, bonuses, allowance and subsidies, overtime wages and wages paid under special circumstances. Total wage bill is pre-tax wages, including the room charges, utility bills, housing funds and social insurance paid or withheld by employer. It is revised according to the "Provision of Composition of Total Wages" (Order No.1 by National Bureau of Statistics on January 1st, 1990).

Average Wage refers to the average per capita wage during a certain period of time for employed persons. It is calculated as follows:

$$Average\ Wage = \frac{\ \ \text{Total wage bill of employed persons at reference time}}{\ \ \text{Average number of persons employed at reference time}}$$

China does not officially collect statistics on the labour earnings of individual employed persons. The average wage of EPUN and EPUP are separately investigated, and data are published independently.

3.1.1 Data Sources

Data on wage are mainly derived from the *China Statistical Yearbook and* the official data of the National Bureau of Statistics of China (NBS). The method of overall survey and sampling survey is used in the labour wage statistics. According to the Survey System of Enterprise One Set of Table and the Survey System of Labour Wage formulated by the NBS, the overall survey method is adopted for the legal entity with one set of tables, and the sampling survey method is adopted for the legal entity other than one set of tables. The "Enterprise One Set of Table" survey system was

implemented starting in 2013, which led to some changes in the statistical data.

3.1.2 Data Classification

Classification by Sector classified in accordance with Industrial Classification for National Economic Activities (GB/T 4754-2017), which refers to International Standard Industrial Classification of All Economic Activities (ISIC Rev. 4) developed by the United Nations Statistical Commission.

Classification by Occupation classified according to the Occupational Classification Dictionary of the People's Republic of China (2022 Edition) by the MOHRSS. The classification refers to the International Standard Classification of Occupations 2008 (ISCO-08) issued by the International Labour Organization. In addition, enterprises above designated size specifically include industry above designated size^[8] (including mining, manufacturing, electricity, production and supply of heat power, gas and water), qualified construction, wholesale and retail above the limit, hotels and catering services above the limit, all real estate development and operation with development and operation activities, services above designated size (including transport, storage and post, information transmission, software and information technology services, leasing and business services, scientific research and technology services, water conservancy, environment and public facilities management, residential services, repair and other services, education, health and social service, culture, sports and entertainment, as well as property management, real estate agency services and other industries). The data first published in 2013.

Labour Compensation per Employed Person refers to the ratio of labour compensation to the number of employed persons, reflecting the level of labour income received by workers on a comprehensive basis.

Table 3 Wages in Urban Non-Private Units and Urban Private Units

(CNY/Year)

	Nominal Average Wage in Urban Non- Private Units	Real Average Wage in Urban Non-Private Units (based on 2004)	Nominal Average Wage in Urban Private Units	Real Average Wage in Urban Private Units (based on 2004)
2004	15920	15920		
2005	18200	17878		
2006	20856	20183		
2007	24721	22828		
2008	28898	25199		
2009	32244	28318	18199	15983

[8] Industry above designated size refers to industrial legal entities with annual primary business revenue of 20 million CNY or more.

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2010 36539 31066 20759 1765 2011 41799 33720 24556 1981 2012 46769 36773 28752 2260
2012 46769 36773 28752 2260
2013 51483 39452 32706 2506
2014 56360 42342 36390 2733
2015 62029 45957 39589 2933
2016 67569 49080 42833 3111
2017 74318 53136 45761 3271
2018 82413 57711 49575 3471
2019 90501 61586 53604 3647
2020 97379 64655 57727 3832
2021 106837 70299 62884 4137
2022 114029 73556 65237 4208
2023 120698 77704 68340 4399

Table 4 Average Wage Growth Rates in Urban Non-Private Industries from 2004 to 2023 (Nominal and Real)

(CNY/Year, %)

Sector		minal W	ages	Average Annual Nominal Growth Rate	Average Annual Real Growth Rate
		2013	2023	2004-2023	2004-2023
Agriculture, Forestry, Animal Husbandry and Fishery	7497	25820	62952	11.85%	9.29%
Mining	16774	60138	135025	11.60%	9.05%
Manufacturing	14251	46431	103932	11.02%	8.48%
Production and Supply of Electricity, Heating, Gas and Water	21543	67085	143594	10.50%	7.97%
Construction	12578	42072	85804	10.63%	8.10%
Transport, Storage and Post	18071	57993	122705	10.61%	8.07%
Information Transmission, Software and Information Technology	33449	90915	231810	10.73%	8.19%
Wholesale and Retail Trades	13012	50308	124362	12.62%	10.03%
Hotels and Catering Services	12618	34044	58094	8.37%	5.89%
Financial Intermediation	24299	99653	197663	11.66%	9.11%
Real Estate	18467	51048	91932	8.81%	6.32%
Leasing and Business Services	18723	62538	109264	9.73%	7.21%
Scientific Research and Technical Services	23351	76602	171447	11.06%	8.52%
Management of Water Conservancy, Environment and Public Facilities	12884	36123	68656	9.21%	6.70%
Service to Households, Repair and Other Services	13680	38429	68919	8.88%	6.39%

Education	16085	51950	124067	11.35%	8.80%
Health and Social Service	18386	57979	143818	11.43%	8.88%
Culture, Sports and Entertainment	20522	59336	127334	10.08%	7.56%
Public Management, Social Security and Social Organization	17372	49259	117108	10.57%	8.03%

Table 5 Average Wage Growth Rates in Urban Private Industries from 2004 to 2023 (Nominal and Real)

(CNY/Year, %)

Sector		Nominal Wages		Average Annual Nominal Growth Rate	Average Annual Real Growth Rate
		2013	2023	2009-2023	2009-2023
Agriculture, Forestry, Animal Husbandry and Fishery	14585	24645	44465	8.29%	5.91%
Mining	18553	33081	75648	10.56%	8.13%
Manufacturing	17260	32035	71762	10.71%	8.29%
Production and Supply of Electricity, Heating, Gas and Water	17795	29597	64826	9.67%	7.27%
Construction	19867	34882	63857	8.70%	6.31%
Transport, Storage and Post	19634	33141	68051	9.28%	6.89%
Information Transmission, Software and Information Technology	28166	44060	129215	11.50%	9.05%
Wholesale and Retail Trades	17775	30604	63701	9.55%	7.14%

Hotels and Catering Services	15623	27352	51583	8.91%	6.52%
Financial Intermediation	30452	37253	124812	10.60%	8.17%
Real Estate	21334	35038	56119	7.15%	4.80%
Leasing and Business Services	21334	36243	67107	8.53%	6.15%
Scientific Research and Technical Services	26187	42854	82277	8.52%	6.14%
Management of Water Conservancy, Environment and Public Facilities	17170	31241	47504	7.54%	5.18%
Service to Households, Repair and Other Services	15688	27483	49907	8.62%	6.23%
Education	21066	31521	55775	7.20%	4.85%
Health and Social Service	18641	33862	74462	10.40%	7.98%
Culture, Sports and Entertainment	17339	30402	59407	9.19%	6.80%

Table 6 Average Wages by Occupation from 2013 to 2023 (CNY/Year; %)

Year	Middle - level and above manageme nt	Profession al and technical personnel	Office workers and related personnel	Personnel engaged in social production services and life services	Personnel engaged in manufactu ring and related personnel
2013	107374	63074	46403	39322	40044
2014	109760	66074	47483	40669	42914
2015	115474	70981	50972	44277	45346
2016	123926	76325	54258	46742	48005
2017	131929	83148	58211	49502	50703
2018	145125	96703	63755	54945	55148
2019	156892	105806	70926	60015	59586
2020	164979	112576	75167	61938	62610
2021	180630	125035	82512	68022	68506
2022	189076	133264	85881	70234	71147
2023	198285	140935	89502	75216	75463

3.2 Labour Compensation

Labour Compensation is the total payment of various forms to employees for the productive activities they are engaged in. It includes the compensation earned by employees in cash or in kind. It mainly includes wages, bonuses and allowances, subsidies, social insurance paid by company or employer for its staff, supplementary social insurance, housing fund, the pension for the employees of the administrative institution, other forms of welfare and remuneration provided by the employers for its employees. Labour compensation, together with Net Taxes on Production, Property Income, and Operating Surplus, constitutes an indicator of Gross Primary Income in national accounting.

Data on labour compensation are derived from the flow of funds accounting (non-

financial transaction) in the national economic accounts in the *China Statistical Yearbook*. There are 5 groups of institutional sectors in the flow of funds table, namely, non-financial corporations, financial institutions, general governments, households, and the rest of the world. Compensation for Employees is the source of labour compensation for the household sector in the flow of funds (non-financial transaction). China's System of National Economic Accounting is based on the System of National Accounts 2008 (2008 SNA), an international standard for national economic accounting jointly issued by the United Nations and five other international organizations.

Labour's Share refers to the total labour compensation given as a percentage of Gross Primary Income in national accounting.

Table 7 Labour's Share from 2004 to 2022

(Thousand CNY/Year, %)

	Thou		
Year	Labour Compensation	Real Labour Compensation (based on 2004)	Labour's Share
2004	752518	752518.0	47.15%
2005	927999	911599.0	50.41%
2006	1053696	1019691.4	49.44%
2007	1251695	1155839.9	48.28%
2008	1505117	1312478.1	47.60%
2009	1669579	1466270.0	49.06%
2010	1903695	1618549.1	47.62%
2011	2224238	1794349.9	47.47%
2012	2565639	2017281.8	49.51%
2013	2989661	2291001.1	51.26%
2014	3283474	2466799.8	50.92%
2015	3570758	2645564.9	52.02%
2016	3865636	2807899.4	52.20%
2017	4242794	3033514.5	51.74%
2018	4755628	3330181.7	52.01%
2019	5134721	3494186.1	52.20%
2020	5295805	3516136.8	52.67%
2021	5892097	3877028.7	51.63%
2022	6342727	4091444.9	53.10%

3.3 Time span

Due to differences in data sources for labour earnings, the time spans of data sets utilized in this report vary accordingly.

---- data on national labour compensation span the period 2004-2022, while the provincial-level labour compensation spans the period 2004-2017.

- ---- data on the average wage of EPUP span the period 2009-2023, while data on the average wage of EPUN span the period 2004-2023.
- ---- data on the average wage of employed enterprises by occupation span the period 2013-2023;