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ABSTRACTS**Research on the Employment of Chinese Labor Force and Its Changing Features***Wang Guangzhou · 2 ·*

By distinguishing the basic concepts of working-age population, labor force participation population and employed population, this paper discusses the methods of employment research, including statistical decomposition, standardization, and life table techniques, and the related measurement difficulties. Using data from the census, 1% population sampling survey and employment survey of China, this paper examines the employment situation and the trend of Chinese labor employment. The research finds that the mode of employment has significant changed with the increase of education. The participation rate of labor force has decreased by more than 8 percentiles from 2000 to 2018. Along with the increase of education and the change of age mode of employment, both the total economic activity rate and the work life expectancy have declined. The work life expectancy at age 16 is about 31.86 years in 2015, which is 6.2 years shorter than that in 2000. The portion of the work life in life expectancy decreases from 64.33% in 2000 to 48.31% in 2015. Although China's labor force is aging and the labor supply decreases, the employment problem for younger labor force is still very severe, especially when those aged 18–24 are concerned.

Measuring the Impact of Sino-US Trade Frictions on Employment from the Perspective of Global Value Chain*Liu Weilin and Others · 15 ·*

Sino-US trade frictions have been escalating since 2018, and Sino-US trade has officially entered a “new normal” era of high tariffs. This paper estimates the import demand elasticities for the sectors involved in the tariff lists of China and the US by using the HS-6 bilateral trade data over the past 16 years. It uses the international input-output model to simulate the scenarios of Sino-US trade frictions and their impacts on the employment scale and structure in both countries. The results show that when the US imposes a 25% tariff on the products from eight sectors in China, based on the number of employees in 2017, the direct impact is a reduction of employment by 316.7 thousand. When taking into account the indirect impact through value chains transmission, the reduction of employment increases to 1 364.5 thousand. When China takes countermeasures, the employment in the US will decrease by 51.9 thousand. The sectors affected most in China are mainly in secondary industry, of which the employment in high-tech industry declines the most. The changes of employment in the three industries of the US are roughly comparable. Computer, electronics and optical products manufacturing industries which are deeply embedded in global value chains are affected most.

The Structural Effect of Labor Allocation on China's Economic Growth: 1953–2018*Hao Daming · 30 ·*

This paper calculates the structural effect of labor allocation since the founding of PRC, and it investigates the law of its evolution and future trend. The results show that: (1) the effect fluctuated vibrantly in 1958–1963, and was significant in 1970–1978, 1979–1988, 1992–1997 and 2004–2013, and has been weakened since 2016. (2) The weakening of the effect is the main reason for the structural decelerating of China's economy. (3) The remaining structural effect will continue to decline among industries in the future. Yet, the within industry structural effect still has potential to develop. The paper suggests that the economic growth potential should be driven further by promoting the transfer of agricultural labors to the secondary and tertiary industries and the flow of labor force to the high-end industries.

A Study on the Effect of Social Insurance on the “Feeling of Security” among the Working Age Population

Yang Yinan and Others ·44·

Using CLDS 2016 data, the paper tests the impact of social insurance on the “feeling of security” among the working age population in China. It first uses factor analysis to measure individual “security”, then the structural equation modeling to explore the impact of social insurance and expected risks, and finally uses the MIMIC model to analyze the impact of different types of social insurance. The results show that: (1) the respondents’ feeling of security is high on average. (2) Social insurance can significantly improve the feeling of security, which increases by 0.08 standard deviation for each standard deviation increase in the coverage rate of social insurance; the expected risk significantly reduces the respondents’ feeling of security, with a decline by 0.15 standard deviation for each standard deviation increase in the expected risk. Therefore, social insurance is not sufficient to completely eliminate the insecurity caused by social risks. (3) In terms of insurance types, the New Rural Cooperative Medical Insurance, Urban Residents’ Medical Insurance, Public Expense Medical Insurance, Retirement Pension of Government Institutions, Employee Pension Insurance and Urban Residents’ Pension Insurance can significantly improve the interviewees’ feeling of security, but the impact of Employee Medical Insurance, New Agricultural Insurance, Unemployment Insurance or Work Injury Insurance is not significant. Finally, the paper proposes some reform measures of the social insurance system in China.

Employment Effect of Floating Population’s Consumption: From a Multi-regional Input-output Perspective

Wang Yafei and Others ·56·

This paper measures employment effect of the consumption of floating population in the origin and destination, using the floating population in Beijing as the case. We construct an innovative employment-extended multi-regional input-output model by matching Chinese multi-regional input-output table for the Beijing-Tianjin-Hebei area with its 14 cities and the rest of each province in mainland China. The data used include micro surveys such as China Migrants Dynamic Survey and China Household Finance Survey. Our results reveal that floating population’s consumption in 2015 drives 2.1 million full-time equivalent (FTE) employment in inflow regions, of which 1.5 million is to Beijing local employment and a comparatively smaller effect to the rest of Beijing-Tianjin-Hebei area. The consumption also generates employment in other provinces, mainly in southeastern coastal areas. In contrast, a total of 730 thousand FTE employment loss took place in outflow regions, mainly in the areas close to Beijing and those origin provinces. Floating population’s consumption in both inflow and outflow regions has similar employment effects for various industries except the real estate. It mainly increases the employment in labor-intensive manufacturing industries and services, while has lower effects on tech- and capital-intensive industries. From the perspective of income and consumption structure, the subsistence consumption of floating population in inflow regions contributes 54.7% of the total employment. The enjoying consumption has little effect on employment, yet is expected to increase along with the increase of income among the floating population.

The Bilateral Effect of Population Aging in Rural and Urban Areas on Urbanization

Fan Jianshuang and Others ·69·

Based on the provincial panel data from 1997 to 2017 and the data of population aging in urban and rural China, this paper uses the bilateral stochastic frontier model to test the impact of population aging on urbanization. The results show that population aging in rural area has a negative impact on urbanization and has reduced the level of urbanization by 10% in the studied period. The population aging for urban area has a positive effect on urbanization and has raised the level of urbanization by 7.78%. On the whole, population aging has reduced the level of urbanization by 2.22%, which explains the “urban-rural inversion” phenomenon in China’s population aging. In other words, population aging in urban area strengthens the role of urbanization in absorbing rural labor force. The interaction of the population aging in urban and rural areas has increased over time, with the net effect changing from negative to positive since 2012. The grouping regression results of education level show that the net effect tends to increase with the increase of education, and to change from negative to positive.

Multi-population Lee-Carter Stochastic Mortality Model: A Comparison of Its Applications in China

Zhao Ming Wang Xiaojun · 81 ·

The paper reviews the development of the multi-population Lee-Carter stochastic mortality model and problems in model solution, and it gives a two-stage weighted least square parameter estimation method based on the restriction conditions. It applies the model to the multi-population formed with mainland China, Hong Kong Special Administrative Region and Taiwan province. The results show that: (1) the two-stage weighted least square estimation method based on the restriction condition can effectively solve the problems of nonconvergence and underidentification of the maximum likelihood estimation, and the estimation method is simple and easy to understand. (2) As the goodness of fit, joint-k model is preferable in the short-term prediction and ACF (0) model is applicable to long-term prediction for the mainland of China, while ACF (0) model is applicable to Hong Kong and Taiwan in both long and short periods. (3) The multi-population mortality model is more robust in China's population mortality fitting, and the application of the model based on the graduation data can significantly improve the goodness of fit. (4) The multi-population stochastic mortality with additional time effect factors can obtain consistent mortality prediction results, which is consistent with the biological law of human being, and makes up for the defect of single-population mortality model.

Human Capital, Income Distribution and Economic Development

Guo Dongjie Wei Xiye · 97 ·

Using a modified intergenerational overlapping model (OLG), the paper analyses the economic development mechanism of developing countries with data from 51 middle-income economies. The results show that: (1) in different stages of economic development, profound changes have taken place in economic structure and dynamic mechanism. In the early stage of economic development, the accumulation of physical capital is the main engine of economic takeoff. When the economy enters the middle-income stage, expanding the accumulation of human capital with higher education becomes the new engine of economic development. (2) Under the influence of market mechanism, the social stratification in the middle-income economies appears. Low-income families and high-income ones tend to fall into the dual trap of "high fertility, low education" and "low fertility, high education" respectively, which is essentially a trigger of the middle-income trap. (3) Per capita GDP of 4 000 USD may be a threshold in economic development, when the return on physical capital remained significant while the human capital accumulation becomes the new driving force of economic development, thus begins "twin-engine". Therefore, upgrading compulsory education and innovation-driven strategies contribute to cross the growth threshold, and will help the economy converge at a higher level of equilibrium. It is also the fundamental way to solve the "dual trap" puzzle of middle-income economies.

The Income Distribution Effect of the Artificial Intelligence Technology:

Frontier Progress and Literature Review

Zhu Qi Liu Hongying · 111 ·

Starting from the technical characteristics of artificial intelligence, this paper systematically reviews the income distribution mechanism and effects of artificial intelligence. For the mechanism of income distribution, the capital orientation of artificial intelligence has reduced the share of labor income by replacing labor with capital, which has widened the gap of factors' return. The information orientation of artificial intelligence has created the "winner takes all" market, and expanded the income gap between and within the digital platforms who have taken advantage of the information. The skill orientation of artificial intelligence has raised the income gap among different skills and occupations, which contributes to the increased skill premium and job polarization respectively. However, the skill orientation of artificial intelligence may also change the skill demand and the organization, which favors the employment of females, and thus narrows down gender gap in income. For the effect on income distribution, the factors of data, technology, capital and high skilled labor benefit from the technology orientation of artificial intelligence, and the income gap will increase in the short run. In the long run, this trend would slow down when the labor productivity and job creation start to take effect and the high skilled talent supply increases. In addition, the adjustment of income distribution policies will also help to solve the income distribution problems of artificial intelligence.

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