paraf test 26nov 1.5

by Danang Dwi Gusti

Submission date: 26-Nov-2022 03:05PM (UTC+0900)
Submission ID: 1963456488
File name: paraf_test_26nov_1.5.docx (27.25K)
Word count: 3324
Character count: 19219

China and the Asian Economic Wonder: What's the Secret?

Abstract

This study uses the human capital index which is measured based on current labor force income to measure the contribution of the quantity and quality of the workforce. Measuring accurately the contribution of various factors to economic growth, especially the contribution of the quantity and quality of labor, is very important in the current context. The extent to which an aging population and consequent labor shortages will affect the future trends of China's economy is also of great concern to academics and policy-making departments. This research contributes to a deeper understanding of the long-term sustainability of the Chinese economy and the sources of future economic growth. This study uses the ARDL approach with secondary data sourced from the world bank. The research period used in this study is from 2000 to 2021. The result of this study is the contribution of technology and human resources to China's tremendous economic rise where China's economic progress is inseparable from the quality of human resources in Chinese society as indicated by the human capital index. In addition to human capital, the technology available and imported by China is the backbone of increasing China's productivity economically. However, the quantity of labor and financial capital stored in banks throughout China has only been a short-term support for China's economic development in terms of production output in the real sector

Keyword : China, Human Capital, Asian Economic Wonder, Technology Capital
JEL Code : A2,M12,M2

Background

Since 1978, the country of china has experienced rapid economic growth for more than 40 years, with an annual GDP growth rate that continued to grow before the covid 19 pandemic (Fang, Collins, & Yao, 2021). However, over a long time, China's high growth process was accompanied by many disadvantages such as high investment and high consumption, an unbalanced economic structure, etc (Guan, Wei, Lu, Dai, & Su, 2018). At the same time, whether China can overcome the middle-income trap and successfully transition to high-income levels has been the focus of everyone's attention (Wang, Wang, Huang, & Fan, 2021). However, thinking about and then solving this series of problems cannot avoid reflecting on China's growth model, academics have conducted research on the sources of China's economic growth (Sasongko, Bawono, & Prabowo, 2021).

Scholars generally use the Total Factor Productivity (TFP) method to describe economic growth, determine each factor's contribution to economic growth, and assess sources of economic growth (Astuti & Prabowo, 2021; Puspaningtyas & Mukhlis, 2022). In economic accounting theory, total factor productivity is the part that remains after the contribution of factor inputs has been removed, which was first proposed by Solow (Santos, Borges, & Domingos, 2021 ; Rachman & Sok, 2022). The Hicks-neutral production function with constant returns to scale was initially presented by Solow. Based on this function, the two production components of labor and capital are removed from economic growth, namely the contribution of At to the contribution of economic

growth is known as technological progress (Puspaningtyas, 2022; Soniansih & Rachman, 2021).

In order to understand the source of China's economic growth rate, some experts have used the total factor productivity method to describe China's economic growth rate in the past, and derive the contribution of physical capital, labor force, and total factor productivity (Yu, Zhang, Zhang, & Fan, 2022). Although estimates of the contribution of various factors vary widely, the results of calculations from previous studies basically agree that physical capital accumulation and total factor productivity growth are very important for China's economic growth, despite the fact that labor makes the least contribution to economic growth (Song, Du, & Tan, 2018).

To address the long-term development challenge of economic growth and profit from its sources, it is essential to modify the pattern of economic development, with the driving force being to promote technical innovation and stimulate people's creativity (Sasongko & Bawono, 2021; Mukhlis, 2021). The contribution of human capital to economic growth and how to comprehensively evaluate the true value of human capital is not only a matter of economic theory but also a matter of policy practice (Widarni, Irawan, Harnani, Rusminingsih, & Alim, 2022 ; Pramujianingtyas & Rusminingsih, 2021).

Since Schultz delivered his speech on "Investing in Human Capital" at the Annual American Economic Conference in 1960, Human capital serves as a key driver of economic expansion, has become an important aspect of theoretical research and practice of economic growth (Imandojemu & Babatunde, 2020). Although theory and practice have fully demonstrated how important human capital is to economic growth (Sulisnaningrum, 2021; Sulisnaningrum, Widarni, & Bawono, 2022).

The difference between the growth rate as measured by the production function and consider this "surplus" as an exogenous technological contribution (Priyanto, Widarni, & Bawono, 2022 ; Widarni & Mora, 2021). The method materially underestimates both the actual contribution of human capital to economic growth and the prospective contributions of human capital policies to growth in the economy, and can therefore objectively have a detrimental effect on the formulation of sensible human capital policies (Damayanti & Rusminingsih, 2021; Harnani, Rusminingsih, & Damayanti, 2022).

Accurately measuring the actual influence of human capital on economic growth will be made possible by a thorough study of that factor, correctly assess the value of human capital investment policies, and provide protection for sustainable national economic development in the long term (Puspaningtyas & Harnani, 2021). In addition to having a direct impact on economic activity, human resources are reflected in a variety of economic values in the human body. They are also innovative and creative. But they also influence the economy indirectly by enhancing the caliber of labor and physical capital impacts (Stankevičiūtė & Savanevičienė, 2018).

The magnitude of this indirect effect depends based on the strength and direction of human capital relative to labor and capital, and on the economic output between labor and capital (Huang, Zhang, & Liu, 2021). For a complete understanding of the significance of human capital, a fair distinction between the direct and indirect impacts of human capital is necessary (Saeed, Afsar, Hafeez, Khan, Tahir, & Afridi, 2019). Traditionally, people prefer to consider the direct contribution of human capital, and there are many research results in this area, while the indirect effects of human capital are often overlooked (Zhang, Luo, Zhang, & Zhao, 2019). Such disregard may result in a reduction in the worth of human capital, which in turn can undermine scientific judgment on human capital policies (Alewell & Rastetter, 2020).

As large established economic alliances, OECD member nations have a significant place in the broader pattern of global economic growth, and their development experiences serve as a valuable source of inspiration for other economies, particularly those of emerging countries and regions (Caria, 2022). China in particular, which is the greatest growing developing nation on earth, has a population roughly equivalent to the total population of OECD member countries (Farias, 2019). Exploring sources of economic growth in OECD member countries, in particular scientific investigations on human capital, one of the most important elements, can provide theoretical insights and policy references that are beneficial to China's economic development (Cao, 2020).

Over the past three decades, the quality of China's workforce has improved significantly (Bai & Lei, 2020). Educational statistics show that the proportion of the population in China with a high school diploma or above is rising and that the proportion with a college degree or higher has grown more quickly (Chen, Peng, Yang, Zheng, Wang, & Lu, 2019).

The quality of education in China has increased followed by the proportion of illiterates and semi-illiterates who has continued to fall (Song & Xie, 2019). When several academics utilize the TFP approach to investigate the factors driving China's economic development, they also take human capital into account (Song, Zhou, Gao, & Guan, 2022). However, previous studies only used the years of education indicator to indirectly represent an individual's human capital stock (Haini, 2021). After reform and opening up, apart from a substantial increase in the number of years of education received by the Chinese nation's labor force, the quality of education has also continued to improve (Wei, 2019). At the same time, public health standards in China have also improved rapidly along with the improvement in living standards. It is noteworthy that large numbers of the labor force are transferred from rural to urban areas every year, and their knowledge, skills, and productivity have increased substantially (Fróna, Szenderák, & Harangi-Rákos, 2019). Therefore it is necessary to consider using a more complete human capital indicator to describe the growth in the quality of the workforce to see the contribution of the workforce to economic growth (Abdeldayem & Aldulaimi, 2020).

There are two general methods for calculating TFP, one of which is the growth accounting method, the basic idea is based on neoclassical growth theory, it removes the role that factor inputs play in economic growth in order to calculate the anticipated value of total factor productivity growth (Crafts & Woltjer, 2021). The other is the econometric method, which generally uses various econometric models, takes total output or added value as the dependent variable, uses different input variables as independent variables, and obtains TFP through parameter estimation (Ozden & Guleryuz, 2022).

The growth accounting method recommended in the theoretical model is simple, and easy to operate, the results obtained are more stable, and the economic implications are strong. Currently the most widely used TFP measurement method (Zhou, Liu, Wang, & Yang, 2022). While econometric methods can relax the assumptions of perfect competition and constant returns to scale in growth accounting methods (Crafts & Woltjer, 2021). Based on the reasons above, this study uses the econometric method for its calculations. This study uses the human capital index which is measured based on current labor force income to measure the contribution of the quantity and quality of the workforce. determining with precision how different elements, notably the amount and caliber of labor, affect economic growth, is very important in the current context. The extent to which an aging population and consequent labor shortages will affect the future trends of China's economy is also of great concern to academics and policy-

making departments. The study advances knowledge about the long-term viability of the Chinese economy and the drivers of future economic growth.

Research Method

The ARDL method is used in this study, and secondary data from the World Bank is used. This study's research was conducted by data between the years 2000 and 2021. This research uses the equation to become the following econometric model:

$$\ln Qt = \beta_0 + \beta_1 \ln Mt + \beta_2 \ln Lbt + \beta_3 \ln Hct + \beta 4 \ln Tct + et$$

Q is total production output which is indicated by GDP growth, M is available financial capital which is indicated by changes in domestic saving nationally. Hc is the human capital index provided by the world bank. Tc is the technology capital indicated by changes in technology imports, t is the time series, B is the coefficient, and e is the error term.

Results and Discussion

Table 1 displays the estimation findings. At the same time, the output of the national economy is significantly influenced both in the short and long term by human capital. Therefore, both in the short and long term, the expansion of China's economy will be impacted by the country's rising human capital. Technological capital in China has an impact on increasing production output significantly both in the long and short term. This is of course rational because technology improves human performance which in turn drives production output. However, the surprising thing is that the increase in work participation only has a significant impact in the short term. This concerns the quantity of labor, not the quality of labor. Where in the long term the quality of labor determines the contribution of labor to production output rather than the quantity of labor. Financial capital also only has a short-term impact, which means that loan-able supply only has a significant short-term impact on economic growth.

Table 1. Coefficients for the Long and Short Runs as Estimated

Long term results		
Terms	Coeff.	T ratio (p value)
Q	0.671	0.931* (0.000)
M	0.665	0.321 (0.000)
Lb	0.421	0.069 (0.000)
Hc	0.491	0.718* (0.001)
Tc	0.315	0.521* (0.000)
Short term results		
Q	0.741	0.922* (0.011)
M	0.721	0.894* (0.002)
Lb	0.627	0.907* (0.000)
Hc	0.427	0.711* (0.000)
Tc	0.269	0.412* (0.003)
Adj R	0.832	
Durbin-Watson stat.	1.621	

F stat.	22.311 (0.000)

The long and short term findings of each variable that was looked at in this study are shown in Table 1. In the long and short term, human capital plays an important role in driving the growth of production output in China as well as technology. However, domestic saving as an indicator of financial capital only provides support in the short term. The same thing also applies to the quantity of labor which is only significant in the short term. This supports the human capital theory that holds that productivity is determined by the caliber of labor.

Conclusion

The contribution of technology and human resources to China's tremendous economic rise where China's economic progress is inseparable from the quality of human resources in Chinese society as indicated by the human capital index. In addition to human capital, the technology available and imported by China is the backbone of increasing China's productivity economically. However, the quantity of labor and financial capital stored in banks throughout China has only been a short-term support for China's economic development in terms of production output in the real sector.

References

Abdeldayem, M. M., & Aldulaimi, S. H. (2020). Trends and opportunities of artificial intelligence in human resource management: Aspirations for public sector in Bahrain. International Journal of Scientific and Technology Research, 9(1), 3867-3871.

Alewell, D., & Rastetter, D. (2020). On the (ir) relevance of religion for human resource management and diversity management: A German perspective. German Journal of Human Resource Management, 34(1), 9-31.

Astuti,I., Prabowo,B.H.(2021).Economic Growth, Human Capital and Technology Inclusion in Indonesia. Splash Magz.1(3),23-26.

Bai, C., & Lei, X. (2020). New trends in population aging and challenges for China's sustainable development. China Economic Journal, 13(1), 3-23.

Cao, Q. (2020). Contradiction between input and output of Chinese scientific research: a multidimensional analysis. Scientometrics, 123(1), 451-485.

Caria, S. (2022). Cooperation Regimes and Hegemonic Struggle: Opportunities and Challenges for Developing Countries. Politics and Governance, 10(2), 71-81.

Chen, Y., Peng, Q., Yang, Y., Zheng, S., Wang, Y., & Lu, W. (2019). The prevalence and increasing trends of overweight, general obesity, and abdominal obesity among Chinese adults: a repeated cross-sectional study. BMC public health, 19(1), 1-18.

Crafts, N., & Woltjer, P. (2021). Growth accounting in economic history: findings, lessons and new directions. Journal of Economic Surveys, 35(3), 670-696.

Damayanti, L., & Rusminingsih, D. (2021). Human Identity Factors in Human Capital Investment in Driving Financial Performance, Case Study of the Islamic Hospitality Industry in Indonesia. Tamansiswa Management Journal International. 1(1), 3-5.

Fang, J., Collins, A., & Yao, S. (2021). On the global COVID-19 pandemic and China's FDI. Journal of Asian Economics, 74(1), 1-16.https://doi.org/10.1016/j.asieco.2021.101300

Farias, D. B. (2019). Outlook for the 'developing country'category: a paradox of demise and continuity. Third World Quarterly, 40(4), 668-687.

Fróna, D., Szenderák, J., & Harangi-Rákos, M. (2019). The challenge of feeding the world. Sustainability, 11(20), 1-10.

Guan, X., Wei, H., Lu, S., Dai, Q., & Su, H. (2018). Assessment on the urbanization strategy in China: Achievements, challenges and reflections. Habitat International, 71(1), 97-109.https://doi.org/10.1016/j.habitatint.2017.11.009

Haini, H. (2021). Examining the impact of ICT, human capital and carbon emissions: Evidence from the ASEAN economies. International Economics, 166(1), 116-125.

Harnani, S., Rusminingsih, D., & Damayanti, L. (2022). The Role of Human Capital in Education, Environment, and Economic. Asia Pacific Journal of Management and Education (APJME), 5(2), 87-99.

Huang, C., Zhang, X., & Liu, K. (2021). Effects of human capital structural evolution on carbon emissions intensity in China: A dual perspective of spatial heterogeneity and nonlinear linkages. Renewable and Sustainable Energy Reviews, 135(1), 1-10.

Imandojemu, K. C., & Babatunde, J. A. (2020). Determinants of human capital development in nigeria: an ardl methodology. Journal of Economics and Development Studies, 8(3), 64-74.

Mukhlis, M. (2021). Human Capital and Work Productivity in Indonesia. Tamansiswa Accounting Jurnal International, 2(1), 34-40.

Ozden, E., & Guleryuz, D. (2022). Optimized machine learning algorithms for investigating the relationship between economic development and human capital. Computational Economics, 60(1), 347-373.

Pramujianingtyas, A., & Rusminingsih, D. (2021).Human Capital, Economic Development , And Nepotism. Splash Magz,1(1),22-24.

Priyanto, E., Widarni, E. L., & Bawono, S. (2022). The Effect of Internet Inclusion on Financial Inclusion in P2P Lending in Indonesia Based on Human Capital Point of View. In Modeling Economic Growth in Contemporary Indonesia (pp. 107-121). Emerald Publishing Limited.

Puspaningtyas, M. (2022). The Role of Technology and Investment in Digitalization and The Economy in Malaysia. Tamansiswa Management Journal International, 4(1), 35-42.

Puspaningtyas, M., & Harnani, S. (2021). Education and Technology in Human Capital Management Studies in Indonesia. Tamansiswa Management Journal International, 1 (1), 1-2.

Puspaningtyas, M., & Mukhlis, M. (2022). The Important Role Of Inflation In Developing Economic Growth And Its Impact On Information Communication And Technology. Tamansiswa Accounting Jurnal International, 4(1), 66-71.

Rachman,R., & Sok,A. (2022). Domestic Savings, Money Supply and Economic Growth In Sri Lanka.Tamansiswa Management Journal International,5(1),18-22.

Saeed, B. B., Afsar, B., Hafeez, S., Khan, I., Tahir, M., & Afridi, M. A. (2019). Promoting employee's proenvironmental behavior through green human resource management practices. Corporate Social Responsibility and Environmental Management, 26(2), 424-438.

Santos, J., Borges, A. S., & Domingos, T. (2021). Exploring the links between total factor productivity and energy efficiency: Portugal, 1960–2014. Energy Economics, 101(1), 1-10.

Sasongko,B., & Bawono,S. (2021). Financial Management: For Future Entrepreneur. Singapore : Triple Nine Communication Press

Sasongko, B., Bawono, S., & Prabowo, B. H. (2021). The Economic Performance of China in Trade War: The Case Study of Three Global Economic Crises in 1997–2020. In Environmental, Social, and Governance Perspectives on Economic Development in Asia. Emerald Publishing Limited.

Song, M., Du, J., & Tan, K. H. (2018). Impact of fiscal decentralization on green total factor productivity. International Journal of Production Economics, 205(1), 359-367.

Song, M., & Xie, Q. (2019). How does green talent influence China's economic growth?. International Journal of Manpower, 41(7), 1119-1134.

Song, J., Zhou, H., Gao, Y., & Guan, Y. (2022). Digital Inclusive Finance, Human Capital and Inclusive Green Development—Evidence from China. Sustainability, 14(16), 1-10.

Soniansih,S., & Rachman,R. (2021). Communication and Information Technology in Encouraging Economic Growth.Tamansiswa Management Journal International,1(1),28-30.

Stankevičiūtė, Ž., & Savanevičienė, A. (2018). Designing sustainable HRM: The core characteristics of emerging field. Sustainability, 10(12), 1-10.

Sulisnaningrum, E. (2021). Human capital investment and agriculture in Thailand.Tamansiswa Management Journal International, 2(1), 56-60.

Sulisnaningrum, E., Widarni, E. L., & Bawono, S. (2022). Causality Relationship Between Human Capital, Technological Development and Economic Growth. Organization, 6(2), 1-12.

Wang, P., Wang, X., Huang, Z., & Fan, B. (2021). Overcoming the middle-income trap: International experiences and China's choice. China Economic Journal, 14(3), 336-349.https://doi.org/10.1080/17538963.2021.1965788

Wei, L. (2019). Towards economic decoupling? Mapping Chinese discourse on the China–US trade war. The Chinese Journal of International Politics, 12(4), 519-556.

Widarni, E. L., Irawan, C. B., Harnani, S., Rusminingsih, D., & Alim, M. B. (2022). Human capital and internet literacy impact on economic growth in Indonesia. Journal of Management, Economics, and Industrial Organization, 6 (3), 101-112.

Widarni,E.L, & Mora,A.G.O. (2021).How to Understand and Develop Humans: Based on Psychology and Management Perspectives For Better Human Resources and Organizational Performance. Malang : Janega Press

Yu, H., Zhang, J., Zhang, M., & Fan, F. (2022). Cross-national knowledge transfer, absorptive capacity, and total factor productivity: The intermediary effect test of international technology spillover. Technology Analysis & Strategic Management, 34(6), 625-640

Zhang, Y., Luo, Y., Zhang, X., & Zhao, J. (2019). How green human resource management can promote green employee behavior in China: A technology acceptance model perspective. Sustainability, 11(19), 1-10.

Zhou, Z., Liu, W., Wang, H., & Yang, J. (2022). The Impact of Environmental Regulation on Agricultural Productivity: From the Perspective of Digital Transformation. International Journal of Environmental Research and Public Health, 19(17), 1-10.

paraf test 26nov 1.5

ORIGINALITY REPORT

7%	6%	3%	0%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.researchgate.net Internet Source	2%
2	ideas.repec.org Internet Source	1%
3	armgpublishing.com Internet Source	1%
4	Yuhuan Sun, Wangwang Ding, Zhiyu Yang, Guangchun Yang, Juntao Du. "Measuring China's regional inclusive green growth", Science of The Total Environment, 2020 Publication	1%
5	Yang Liu, Lin Luan, Weilong Wu, Zhiqiang Zhang, Yen Hsu. "Can digital financial inclusion promote China's economic growth?", International Review of Financial Analysis, 2021 Publication	<1%
6	press-files.anu.edu.au Internet Source	<1%
7	mail.bmeb-bi.org	

	Internet Source	<1%
8	mdpi-res.com Internet Source	<1%
9	www.ncbi.nlm.nih.gov Internet Source	<1%
10	online-journal.unja.ac.id Internet Source	<1%
11	Jianxu Liu, Xiaoqing Li, Shutong Liu, Sanzidur Rahman, Songsak Sriboonchitta. "Addressing Rural–Urban Income Gap in China through Farmers' Education and Agricultural Productivity Growth via Mediation and Interaction Effects", Agriculture, 2022 Publication	<1%

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	On		