Athena Transactions in Social Sciences and Humanities, Volume 3
Proceedings of the 3rd International Conference on Education Studies: Experience and Innovation (ICESEI 2022), pp. 143–146
DOI: https://doi.org/10.55060/s.atssh.230306.023, ISSN (Online): 2949-8937
Proceedings home: https://www.athena-publishing.com/series/atssh/icesei-22

PROCEEDINGS ARTICLE

Research on the Impact of China's Educational Investment on Economic Development Based on the Experience of Developed Countries

Yucheng Wu[1,*]

[1] *Charles Wright Academy, Tacoma, Washington, United States*

ABSTRACT

After breaking through the early stages of economic development, the subsequent development drivers of state economy are closely related to human capital, and investment in education is often considered the main way to enhance the competitiveness of human capital in this process. This article analyzes the corresponding internal logic that exists between education investment and economic development, sorts out how education investment strongly drives economic growth, and draws on the experience of developed countries in the field of education investment to obtain the research conclusions: increasing education funding, optimizing the structure of education investment and focusing on the cultivation of innovative talents.

ARTICLE DATA

Article History
Received 20 September 2022
Revised 25 September 2022
Accepted 3 February 2023

Keywords
Education investment
Economic development
Experience reference

1. INTRODUCTION

To promote economic development comprehensively, it is not only necessary to enhance the scale of the economy, but also to optimize the income distribution structure from a global perspective, so that China's economy can gradually achieve high-quality transformation and eventually reach the goal of "common prosperity". After breaking through the early stage of economic development, the driving force of the subsequent development of national economy is closely related to human capital. In this process, educational investment is usually considered as the main way to enhance the competitiveness of human capital.

Starting from the overall, this article analyzes the corresponding internal logic between educational investment and economic development, sorts out how educational investment effectively promotes economic growth, refers to the long-term experience of developed countries in the field of educational investment, and finally obtains a research conclusion.

2. EXPERIENCE OF EDUCATION INVESTMENT IN DEVELOPED COUNTRIES

By exploring the situation of education investment in major countries around the world, it is possible to understand global trends in education investment, which can create conditions for the expansion of social influence in the field of education investment.

2.1. German Experience

Developed countries generally pay much attention to education investment, among which Germany has created the "German miracle", attracting attention. After World War I, Germany used about ten years to return to its previous prosperity and was once again promoted to a global economic power. After that, Germany experienced defeat in World War II and the industrial output of the whole country regressed by about 80%, but the battered Germany returned to the pre-war level again through several years of efforts [1]. For example, the total economic output created by Germany in 1951 was already higher than that in

*Corresponding author. Email: 81403749@qq.com

1938, which made Germany develop again as a globally recognized economic power.

Germany's rapid rise to prominence in the wake of continued devastation was largely due to its perfect national education system and strong reserve of high-quality human capital. The German government at all levels paid great attention to education, making it the most important program nationwide before World War I [2]. In the 1880s, Germany invested about 1.6% of GDP in education. After the World War I, this indicator rose to 4.1%, compared to 2.8% in the United Kingdom during the same period. According to studies, education contributed about 2% to Germany's economic growth in the 100 years after 1861, which was one of the main reasons why Germany remained an industrial power in Europe. After World War II, the German economy faced a huge blow and corresponding difficulties in raising funds for education, which kept total funding for education low in the years after the war. However, Germany placed a high value on education and placed a high priority on education in the national spirit. The German vocational education system is very well developed and provides society with a large number of highly qualified senior skilled workers, and statistics show that Germany has a higher proportion of brain workers than the United States. Viewing the economic recovery after Germany's two defeats, education plays a key role in building the state economy.

In comparison with other developed countries, the German education system places more emphasis on "craftsmanship". In the compulsory education at the primary level, students will start to be oriented after the fourth grade; in the secondary school, they will enter the vocational secondary school and the general secondary school respectively, in which the vocational secondary school mainly cultivates the professional craftsmen who meet the needs of the times, and the general secondary school provides reserve talents for higher education [3]. It can be seen that the German education system focuses on meeting the needs of personnel training at different levels, and provides the country with different levels of skilled workers, engineers, and researchers through a targeted education approach. The German education system has been gradually improved over time, which is closely related to Germany's emphasis on vocational education, and the German government has introduced several policies to invest more resources in primary education and to guarantee "super-equality" in education by optimizing the allocation of educational resources, which has some reference significance. The "super-equal" allocation of educational resources can be seen in a number of directions, such as the focus of educational resources on economically disadvantaged regions, and the continued expansion of investment in education in all areas in the East German regions after reunification, with the average investment in education in the former East German regions exceeding that of the West German regions in 2007.

2.2. American Experience

The United States attaches great importance to education. In 1852, the United States began to promote compulsory education. Within the next half century or so, the United States fully universalized compulsory education and completed the overall construction in the field of primary education nationwide. In 2010, the United Nations stated in "Human Development Report" that in 2010, the average number of education years globally increased compared with the previous year, with the value of this indicator for U.S. citizens reaching 12.4 years. In the long development process of the United States, the contribution of education to economic growth was very positive. In the 1930s, the contribution of education to economic growth was about 19.7%, and this index increased to 49.2% in the 1980s. In contrast to education finance model in China, funding for education in the United States is not primarily provided by the central government, but by local governments [4]. For example, they can collect property tax to supplement the funding in education sector. The U.S. believes that the central government does not need to be too involved in education funding. This is due to the fact that local governments are responsible for education funding to improve education equity, i.e. taxpayers are able to participate more actively in education in their regions and maintain stability in education investment.

Sustained investment in education improves the competitiveness of human capital and is reflected in the improvement of social productivity. After the 1990s, the U.S. was characterized by the growth of the "new economy," with labor productivity growing at a rate of about 2.7% in the 1960s. After that, due to the impact of the oil crisis, labor productivity in the United States increased slowly until the 1980s. After 1990, the value of this index continued to rise, reaching as high as 5.1% at the end of the last century, and significantly exceeding the national GDP growth rate at that time [5].

From past historical development experience, the U.S. has effectively achieved economic transformation and demonstrated a strategic vision in the field of education investment, and has long insisted on focusing on science and technology development and education investment to complete the educational layout from the national strategic level. Most politicians in the U.S. believe that competitive

advantage in science and technology is equivalent to competitive economic advantage, and that technological leadership can also sustain economic leadership, which is the basis for the U.S. to maintain strong economic competitiveness in the global context for a long time [6]. According to statistics disclosed by the United Nations, the U.S. ranks first in R&D funding worldwide. After the World War II, more than 30% of the economic growth in the U.S. has been driven by scientific and technological progress, and the increase in scientific and technological innovation and research and development in the U.S. is closely related to the construction of the education sector. Currently, all states in the U.S. have met the need for twelve years of compulsory education, and the state provides funding for colleges and universities by way of the "Higher Education Act". The United States has a perfect higher education system and a good teaching atmosphere in colleges and universities, which can provide a driving force for research and innovation and talent building. Schultz, a scholar, pointed out in his subject study that the corresponding return rate of investment in education in the United States was about 17.3% after economic transformation, while the range of investment in other related fields was between 5% and 15% in the same period [7]. With a sound education system, the U.S. continues to consolidate its human capital advantage, which can not only provide a boost to the economic development of the United States, but also maintain its global hegemony.

3. INSPIRATION TO CHINA OF EDUCATION INVESTMENT IN DEVELOPED COUNTRIES

3.1. Investment in Education Promotes Economic Development

Education is a social industry that is also closely linked to capital stock accumulation. After more than a century of accumulation in developed countries, the fixed capital deposited as a result of investment in education is very substantial and far greater than that in developing countries. Globally, the corresponding education investment growth rate in developing countries is significantly higher than that in developed countries, which is associated with capital accumulation, such as, the GDP growth rate in developing countries generally exceeds that of developed countries. In contrast, developing countries generally do not invest in education consistently enough, and there is a lack of awareness of the importance of education investment, for example, the total amount of education investment is prone to large fluctuations. After the 11th Five-Year Plan, China's investment in education has been relatively stable and has maintained its growth momentum. Although the annual growth rate is not high, it is generally sound and can positively influence the future development of the education industry.

3.2. The Structure of Education Investment Should Be Demand-Oriented

Since the 1980s, the trend of education investment in developed countries has been stable and the stock of education capital has been larger at this time. Even if the government has invested more in the field of education investment, it's more difficult to stimulate the corresponding potential, and the structure of education investment could be adjusted to some extent. In the process of optimizing the allocation of educational resources, the government should encourage the increase of private investment in education, the general compulsory education system in developed countries is relatively well developed, and the public education system covers wide areas, which can meet the current overall needs of national education. However, private forces can promote the development of personalized education, such as vocational training, corporate job learning, etc. Private companies in the United States pay more attention to employee training and talent building, with annual education spending of about 100 billion dollars. The aging population in Europe is more serious and the unemployment rate is relatively high, so vocational training in Europe has received attention and the state has gradually increased its investment in transfer training, while the government has encouraged to increase investment in education through the introduction of supportive policies.

4. CONCLUSION

This study analyzes how to improve the positive impact of education investment on economic growth and explores the impact of increased education investment on the formation of income distribution patterns, considering China's downward economic growth and need for transformation and upgrading of industrial structure. Considering past experience and effectiveness of education investment in developed countries, the following conclusions are drawn.

4.1. Increasing the Investment in Education

In general, China has attached great attention to the investment in education to ensure that the investment

in education can meet the needs of national economic construction and social development, but there is a large gap between China and developed countries. At the overall level, the gap is reflected in the total amount and the structure. China needs to further increase the investment in education in terms of total amount, expand the social influence of education investment, increase the annual growth rate of education expenditure in the fiscal budget program, and exceed the annual growth rate of fiscal expenditure. In view of the global competitive situation faced by China in the latter stage, the share of education investment in GDP can be increased to about 5.5%. At the same time, it is suggested to invest more in education, so that the share of education investment in GDP can be close to 7%, providing a driving force for national technological innovation, industrial development and economic construction.

4.2. Optimizing the Structure of Education Investment

In the future economic development, some new industries and high-tech industries get rapid development, and education investment also needs to be oriented to gradually improve the human capital structure. First, it is necessary to comprehensively promote the reform of education investment system and guide social forces to participate in investment in education. At present, most of education funds need to be appropriated by the government in China, resulting in that the scale of appropriations will not be significantly improved in the short term. After the reform of education system, social capital can be fully involved in the development of education, especially in the fields of vocational education and higher education, and the experience of developed countries can be referred to, in order to gradually improve the effect of social forces in running schools and make education and industry effectively integrated. Second, it is necessary to enrich vocational education and training channels. At present, the development of secondary vocational education in China is slow, and it is necessary to increase the investment in secondary education at a later stage to meet the needs of industrial transformation and upgrading to ensure that professional and technical workers can play a role in production and construction. China can refer to Germany's experience and make a diversion for students in the compulsory education stage, so that a certain proportion of students can participate in the training of skilled workers and intermediate technicians. Meanwhile, China must keep an eye on the direction of enterprise talent team construction, to create a favorable external environment for the improvement of education expenditure performance.

4.3. Focusing on the Cultivation of Innovative Talents

Considering the current economic downturn, China needs to focus on how to improve the effectiveness of training innovative talents, and provide more opportunities for theoretical learning and practical participation for innovative talents in education investment. Education not only realizes the transfer of knowledge, but also promotes creativity. Therefore, it is suggested to focus on the cultivation of children's curiosity and imagination, spread children's thinking, strengthen their sense of innovation, and create an atmosphere that encourages innovation in society.

REFERENCES

[1] A. Smith. An Inquiry Into the Nature and Causes of the Wealth of Nations (translated). Beijing: Huaxia Publishing House, 2005. (in Chinese)

[2] Ye Maolin. Educational Development and Economic Growth. Beijing: Social Sciences Academic Press, 2003. (in Chinese)

[3] Li Yining. On the Basis of a Reasonable Proportion of Education Expenditure in National Income. China Social Science, 1984(4). (in Chinese)

[4] Diao Xingyue. Long-Term Equilibrium Relationship Between Economic Growth and Fiscal Education Expenditure in China. Chinese and Foreign Entrepreneurs, 2018(4). (in Chinese)

[5] Xue Xinlong, Li Liguo. On the Progress of International Empirical Research on the Relationship Between Higher Education and Economic Growth. Journal of Education of Renmin University of China, 2018(3). (in Chinese)

[6] Zhou Yan. Study on the Dynamic Relationship Between Education Investment and Economic Growth: Taking Hunan Province as an Example. Journal of Economic Research, 2019(4). (in Chinese)

[7] Jie Hui, Wang Chengyong. Education Investment, Labor Quality and Economic Growth: Based on the STR Model. Journal of Central China Normal University: Humanities and Social Sciences Edition, 2019(1). (in Chinese)