



# Two sides of the economic effects of high-speed rail construction on small and medium-sized cities and its countermeasures

Meng Li\*

School of Economics and Management, Shanghai Maritime University, Shanghai 200000, China.

**Abstract:** With the opening of high-speed rail since 2008, China has entered the era of high-speed rail. The rapid development of high-speed rail has effectively broken through the bottleneck of insufficient capacity in China, which has produced a host of positive effects and made great contributions to China's economic development. However, the research shows that the rapid development of high-speed rail construction is greatly beneficial to the large cities, but its impact on small and medium-sized cities along the way is yet to be discussed. Therefore, it is necessary to explore the economic effects of high-speed rail construction on small and medium-sized cities and effectively deal with the negative impact brought by high-speed rail.

**Keywords:** Two sides of the economic effects; High-speed rail construction; Suggestions and countermeasures on positive and negative effects of high-speed rail economy

## Introduction

In recent years, the rapid development of China's economy and the rapid advancement of urbanization have brought great market demand and potentials to high-speed rail construction. In recent years, the rapid development of China's high-speed rail has enabled our high-speed rail industry to change from "blank" to "catch up" and then to "lead". By the end of 2019, China's railway operating mileage will reach 139,000 kilometers, of which 35,000 kilometers are high-speed rail, ranking first in the world [1]. The construction of high-speed rail improves regional accessibility, shortens time and space distance, and plays an increasingly prominent role in promoting economic development. But at the same time, we should be soberly aware that the high-speed rail itself is not an absolute economic "growth engine", especially for a slice of small and medium-sized cities. If the advantages of small and medium-sized cities are not obvious, the environmental attraction is not strong enough, and the convenience brought by the construction of high-speed rail is not seized to accelerate their own development, the high-speed rail will even become a "corridor" to suck back the resource elements.

## 1. Positive effect; Three major dividends

### 1.1 Attract superior resources to gather and produce agglomeration effect

The construction of high-speed rail improves the accessibility of urban areas, makes the transportation more convenient, and reduces the transportation cost between regions, thus attracting material flow, talent flow, technology flow and capital flow to gather here, accelerating the agglomeration of industry and cities, and indirectly promoting economic growth. By studying the influence of high-speed rail on the service industry gathering, we can find that the redistribution of high-speed rail leads to the service industry gathering in cities along the route. Diffusion is beneficial for the service resources of core cities to be dispersed to small and medium-sized cities along the route.

Copyright © 2020 Meng Li

doi: 10.18282/1-e.v9i4.1705

This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

aesthetic spirit, but also to bring an audio-visual feast to the audience. The audience perceives the essence of traditional culture and receives aesthetic edification, which will not only contribute to the development and dissemination of Chinese animation aesthetics, but also help to establish national cultural confidence and inherit national cultural spirit.

## References:

- [1] Baihua Zong. Aesthetic walk [M]. Shanghai: Shanghai People's publishing house, 1981.
- [2] Zeman Chen. An analysis of Mr. Zong Baihua's "virtual reality" from "aesthetic walk" [J]. Ideological beauty and the times (2), 2013 (5): 55-56.
- [3] An Yang. The important role of visual "language" of ink painting in national animation. Zhejiang: China Academy of fine arts, May 2008.
- [4] Jun Sun. MCA. Film and animation film analysis [M]. Ocean Press, 2005.2.

## **1.2 Improve the city image and optimize the city investment environment**

On the one hand, the opening and operation of high-speed rail will improve the urban appearance and investment environment of small and medium-sized cities, leaving a good impression on individuals, and thus achieve the promotion of popularity and reputation. It can attract capital, talents and enterprises to join and realize the purpose of "bringing in". On the other hand, it can attract foreign talents and enterprises to invest in the industry and realize "going out"<sup>[3]</sup>. Nowadays, as a paramount window and symbol for small and medium-sized cities to face peripheral cities, the construction of high-speed rail can bring a number of new opportunities to the small and medium-sized cities.

## **1.3 Optimize the spatial structure and promote the development of related industries**

The opening of high-speed rail directly drives investment in fixed assets, promotes the development of industries related to high-speed rail construction, operation, maintenance, research and development, increases the economic benefits of enterprises, provides employment opportunities for individuals, and at the same time increases tax revenue for the government. In the stage of rapid urbanization, railway transport hubs have a remarkable agglomeration effect on urban service functions. Studies at home and abroad show that the newly built railway passenger transport hub can effectively promote the development of the surrounding areas, and finally form a new urban center with the railway passenger transport hub at the center. While the high-speed railway hub station has a stronger economic promotion ability.

## **2 Negative effects; Three major crises**

### **2.1 The outflow of production factors produces a siphon effect**

Large cities with developed economy have huge consumption market, a large number of employment opportunities, perfect infrastructure and government policy support, which can provide a favorable external environment for the development of enterprises and individuals. After the opening of high-speed rail in a region, due to a series of reasons, such as the regional economic situation, relatively low consumption level, weak economic development strength and lack of distinct urban cultural atmosphere, it is mainly reflected in three aspects. Firstly, the improvement of accessibility after the completion of the high-speed railway will prompt a slice of enterprises to move their headquarters to a larger consumer market and accelerate the transfer of advantageous industries. Secondly, the transfer of related large-scale manufacturing enterprises will bring threats to small and medium-sized enterprises in small and medium-sized cities, and industrial elimination will bring structural unemployment. Thirdly, with the improvement of accessibility, there will be the separation of working place and living city, and big cities will become places where talents gather, while small cities will only serve as a foothold.

### **2.2 Related supporting measures lag behind, resulting in mismatch effect**

On the one hand, as a new means of transportation in small and medium-sized cities in recent years, the development of high-speed rail is relatively late. The integration of high-speed rail has not been fully considered in the construction planning, traffic layout, business district and industrial system of the city itself, which will lead to the mismatch of resources and elements. On the other hand, for top high-tech achievements, docking and matching with high-speed rail will also face difficulties in capital, technology and talents, which will take some time<sup>[4]</sup>.

### **2.3 The city is not attractive, resulting in aisle effect**

The convenience and rapidity of high-speed rail have brought in individuals flow, logistics and capital flow, but it is precisely because of the convenience of high-speed rail that these essential resources only pass through these small and medium-sized cities which are not attractive<sup>[5]</sup>, but do not stay in the local area. This does not bring actual benefits, and the economy affects local areas, and may also face the risk of factor dilution and differentiation. High-speed rail will become a fast-track for regional tourists to flow out and consumption to move out.

## **3 Suggestions and countermeasures;**

### **3.1 Promote resource integration and strengthen cooperation**

Small and medium-sized cities should accurately grasp their own location characteristics, industrial and resource advantages, infrastructure construction level, determine their position in the region, find a correct position, and give play to their comparative advantages. Secondly, optimizing industrial spatial layout is an crucial prerequisite for integrating regional resource elements and accelerating transformation and development. In the era of high-speed rail, small and medium-sized cities should seize opportunities, break the boundaries of urban administrative regions, and form integration between urban agglomerations and cities. By strengthening the complementary advantages of resources, dislocation development of industries, amplifying the effect of the same city, doing a good job of division of labor among cities, carrying out integrated planning, speeding up regional cooperation with large and medium-sized cities along the route, and establishing a mechanism of policy reciprocity, resource sharing, market interaction and win-win cooperation, we will integrate ourselves into the development of metropolitan areas and urban agglomerations.

### **3.2 Improve the construction of urban, supporting measures and optimize the development environment.**

Strengthen the construction of high-speed rail stations. The high-speed railway station will be built into a complex integrating shopping, leisure and entertainment so as to meet the various needs of tourists. Improve the construction of supporting transportation facilities. Do a good job in line planning, site setting, and build a comprehensive and three-dimensional transportation hub composed of high-speed railway, local railway, expressway and urban public transport. The urban public transport system can connect with a high-speed railway station at zero distance, which is more convenient for residents to travel and evacuate individuals and logistics

brought by high-speed rail. Optimize the investment environment. We will build a number of new factories and public service projects, coordinate the development of modern service industries such as business offices, entertainment and leisure, and creative industries, and accelerate the formation of urban multi-functional economic zones.

### **3.3 Cultivate advantageous industries and scientifically plan urban development**

Small and medium-sized cities should accurately grasp the local geographical and cultural environment, resource status and development basis, distinguish their own strengths and weaknesses, do a good job of scientific research, fully tap and develop their own characteristic industries, and then make scientific pre-judgment and strategic planning. In addition, they should scientifically carry out industrial layout and urban spatial planning, effectively reserve urban land and rationally plan the development of the first, second and third industries. Taking tourism as an example<sup>[6]</sup>, high-speed rails have brought rare opportunities to small and medium-sized cities along the route. Relevant departments and industry entities should develop targeted tourism products, create a high-quality tourism environment, increase the attractiveness of the tourism environment, improve tourism service capacity, and seize this opportunity to develop the tourism industry, thus alleviating the "siphon effect".

## **4. Conclusion**

High-speed railway connects large, medium and small cities in the form of an axis. The increasingly dense high-speed railway network covers more small cities, effectively realizes the exchange and sharing of resources, and tastes the sweetness of high-speed railway dividends in a short time, but the negative impact on the high-speed railway can not be ignored. The research on the impact of high-speed rail construction on the development of small and medium-sized cities can enable governments at all levels to further determine the direction and intensity of transportation infrastructure construction, formulate regional economic policies and development plans, improve the effectiveness of policies, help small and medium-sized cities effectively seize the opportunities brought by high-speed rail, reduce the negative impact brought by high-speed rail construction, and effectively drive economic growth, thus achieving regional coordinated development and high-quality development.

## **References**

- [1] Baidu Encyclopedia. High-speed railway [EB/OL], <http://baike.baidu.com/view/3743.htm>
- [2] Shuai Shao, Zhihua Tian, Lili Yang (2017). High speed rail and urban service industry agglomeration: Evidence from China's Yangtze River Delta region [J]. *Journal of Transport Geography*.
- [3] Li Xiang, Yang Yingfa (2014). Two sides of high-speed rail economic effect and countermeasures [J], *social sciences in Yunnan*, no. (02), pp. 94-97.
- [4] Xia Mingfei (2018). Impact analysis of high-speed rail on Linyi's economic and social development and countermeasures [D], Nanjing University of Aeronautics and Astronautics.
- [5] Jiang Hongqi (2019). "Four Major Crises" in Small Cities in High-speed Railway Era [J], *Decision-making*, no. (04), pp. 26-28.
- [6] Gao Yanyan, Su Wei, Wang Kaini (2019). Does high-speed rail boost tourism growth? New evidence from China [J]. *Tourism Management*, pp. 72.