Chapter 15

Government initiatives on transport and regional systems: The development and management of Chinese high-speed rail

Changmin Jiang, Adolf K.Y. Ng, Xiaoyu Li
Department of Supply Chain Management, Asper School of Business, University of Manitoba, Winnipeg, MB, Canada

1 Introduction

There have been considerable efforts made by the governments of many countries and regions to engage remote or peripheral regions within national or continental networks. Indeed, governments often play hugely significant, and sometimes decisive, roles in the evolution and development of transport and regional systems. Substantial research in transport and transport policies has supported this notion (e.g., Hou and Li, 2011; Panayides et al., 2015; Bonnafous, 2015). The introduction of new and major government initiatives often generates heated and controversial public debate, not only because they involve huge transport investments and institutional changes, but also because it may cause transformation of transport and regional systems (Daamen and Vries, 2013; Monios and Lambert, 2013; Ng et al., 2018, 2019). For instance, many European governments have encouraged and funded the expansion of the European Community to the less developed and remote regions, and most of these funds involve transport infrastructures (Dall'Erba and Le Gallo, 2008). In some cases, new circumstance has led to the redistribution of population (e.g., HSR is likely to change the spatial distribution of population along the corridors). Therefore, government initiatives and transport systems are particularly relevant.

In transport systems, the introduction of high-speed rail (HSR) is no doubt one of the most remarkable changes in the past decades. It has been more than half a century since Japan launched the first modern HSR "Shinkansen" on the

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Tokyo-Osaka route in 1964. HSR has now been regarded as a common transport mode in countries like France, Italy, Spain, Germany, South Korea, and Taiwan and become the dominant transport mode on some corridors, especially for short-distance markets, serving millions of passengers every day (Jiang and Li, 2016). Worldwide experience has indicated that HSR is the most competitive transport mode for routes between 400 and 1000 km where airlines usually lose ground to HSR, being either pulled out of markets or into a big decline in market share (Rothengatter, 2010).

HSR is not just a faster transport mode but poses substantial impacts on regional issues and reshapes spatial structures (Ureña et al., 2009; Vickerman, 2017). Previous studies have reported that HSR networks play a critical role in spatial transformation and regional accessibility. For instance, Cao et al. (2013) indicate that the large-scale implementation of the HSR network in China generates the redistribution of demographic and economic activities. Zheng and Kahn (2013) discuss that HSR implementation triggered the development of surrounding second-tier and third-tier cities. Wang et al. (2012) report that the development of HSR will enlarge and transform tourism market space, intensify market competition on a large scale, and redistribute urban tourism centers. On the other hand, even with the massive realignments in construction and operations, the impacts of HSR and the resulting spatial patterns of transport systems are likely to be countered by certain inertia and forces. Active government initiatives (e.g., public funds) do not necessarily transform regional and transport systems (Breidenbach and Mitze, 2015; Monios, 2016). There is thus a need to have more critical analysis of the far-reaching impacts of government initiatives on HSR development and evolution to direct its future planning.

Compared with its counterparts, China developed HSR relatively late, but its expansion rate has increased dramatically over the past decade. Indeed, it was not until the construction and operation of Chinese HSR that this term has regained the world's attention. The operation of the route between Guangzhou and Wuhan on December 26, 2009, marked that China railway transport entered a new high-speed era. Travel time has been reduced from 12 to 3 h because of the launch of the network, with over 23,000 km in service, more than the rest of the world's high-speed lines (HSLs) combined. According to the National Development and Reform Commission (NDRC), by 2020, the Chinese rail network will be 150,000 km in total, including about 30,000 km HSLs. With a system comprising four horizontal and vertical lines, China's HSR served 80 million people in 2014, and is expected to serve 90% of the population by 2020. With the commitment from the Ministry of Railway, the Chinese HSR network has expanded at an unprecedented speed and scale. This development is an extraordinary achievement, especially considering the fact that it started only less than a decade ago and is still in the middle of network expansion today. More aggressive plans have been proposed; many are under construction. With a well-established HSR network, the development

and management of Chinese HSR serves as an illustrative exposition in understanding the impacts of major government initiatives on the spatial transformation of transport and regional systems. By starting with a review of the Chinese HSR network development and then moving to a discussion of its future development, we investigate the spatial transformation that the Chinese HSR has generated.

The rest of the chapter is organized as follows. Section 2 extends the theoretical discussions through a relevant case investigating the development of HSR in China. Then Section 3 projects its future development by discussing four possible development trends. Finally, concluding remarks can be found in Section 4.

2 Chinese HSR development

The Chinese government played a key role in HSR development from the initial design stage to the later expansion plan. In China, the HSR network has been encouraged and financially supported by the Chinese government, and in turn, the opening of HSR has had significantly positive impacts on regional economies, which are often regarded as important factors in planning and decision-making for policy makers. A major indicator of regional economic impacts is the effect of transport-induced agglomeration on business productivity. According to the World Bank (2014a), the estimated agglomeration effects of HSR on various second-tier and third-tier cities are substantial. As shown in Table 1, they occupy 0.55% of total gross domestic product (GDP) in Jinan per year, 1.03% in Dezhou, and 0.64% in Jilin. Although economic factors are critical to the decision on whether the government should invest in HSR projects, the rationale for the investment goes far beyond them. In fact, it is the combination of political and strategic factors, normally related to regional development objectives, that determines the feasibility of building an HSR network. The development of the Chinese HSR network is an excellent example

TABLE 1 Regional economic impacts of HSR on cities.

City	Agglomeration effects	
	Increase in GDP	Benefits (RMB in billions)
Jinan (Beijing-Shanghai HSR)	0.55%	3.65
Dezhou (Beijing-Shanghai HSR)	1.03%	3.59
Jilin (Changchun-Jilin HSR)	0.64%	2.39

(Data from World Bank, 2014a. Regional Economic Impact Analysis of High Speed Rail in China. Available at: http://www.worldbank.org/content/dam/Worldbank/document/EAP/China/high_speed-rail-%20in-china-en.pdf.)

to show the impact of the government initiative on spatial transformation, as many previous studies have shown. A list of literature on the impacts of HSR on spatial transformation is shown in Table 1. Apart from the studies mentioned in Table 1, we further discuss two examples in the following, i.e., the announcement of 10 megacity regions and the 4 trillion RMB stimulus package, to illustrate the impact of the Chinese government initiative on infrastructure development and spatial transformation.

2.1 Ten megacity regions

In 2007, NDRC announced 10 megacity regions, including seven in inland areas and three along coastal economic zones, which are expected to become engines of domestic economic development. The idea of megacity regions refers to an economic concept embodied in a geographical location. It links multiple centers and subcenters and then integrates them in a hierarchical order via essential communication and transport infrastructures (Hall and Pain, 2006). The productivity of these 10 megacity regions is more than half of the whole country. For example, in 2005, the GDP of these 10 megacity regions accounted for about 53% of the total output and their population was about 35% of the total population in China (Xiao and Yuan, 2007). In fact, the development of the Chinese HSR network has been closely related to this spatial development strategy. HSR enables the formation of polycentric agglomerations of urban areas, i.e., the megacity regions. On the one hand, the spatial development strategy facilitates the exchange of information, economic, technological, and labor flows along HSR corridors, which would have positive effects on regional development from urban centers. On the other hand, the Chinese HSR network is expected to link all megacity regions, unify the whole national economy, and eventually achieve the goal of reconfiguring both regional and national economies. The cross-boundary HSR network development is likely to stimulate the integration of the Chinese regional economy, while the development of transport infrastructure would enable local governments to break fixed administrative boundaries and hence optimize their policies. As a result, the lower value-added activities are expected to shift from coastal areas to the western parts of China, and then the booming coastal economic zones would focus on developing high value-added services. The rapid development of the Chinese HSR network in parallel with the improvement of the regional competitiveness would decrease the level of regional uneven development.

2.2 Four trillion RMB (585 billion USD) stimulus package

From 1978 to 2008, the market share of road transport rose from 29.9% to 53.8%. The market share of aviation experienced a similar trend, increasing from 1.6% to 12.4%. However, the market share of rail has dropped from

62.7% to 33.3% (Fu et al., 2012). An important reason for this situation has been the capacity constraint of the rail industry. The capacity increase had not met traffic growth over these years. However, such capacity constraint has been largely alleviated due to the fact that the Chinese government increased its investment in infrastructure development, especially in HSR infrastructure. In 2008, the Chinese government announced an economic stimulus package of 4 trillion RMB (585 billion USD), including 1.5 trillion RMB (225 billion USD) on public infrastructure (e.g., railway, road, and airport construction). Since then, the importance of infrastructure development has been further emphasized. The Chinese HSR network is no doubt one of the main beneficiaries of this stimulus package. Fig. 1 shows the progression of the Chinese HSR network, which partially indicates that the stimulus package has a positive effect on the expansion of the Chines HSR network. As shown in Fig. 1, the Chinese government built new HSR lines every year, indicating that China adopted a simultaneous instead of sequential plan for the construction of multiple HSR corridors at the same time. In addition, we can see that the growth of HSR lines was relatively slow from 2003 to 2007. However, the development of HSR lines started to become faster at the beginning of 2008, right after the announcement of the stimulus package. The speed of growth has experienced a dramatic increase since 2011, causing the total length of HSR lines to more than triple within 4 years. We suppose that this phenomenon was largely due to the financial crisis in 2008—with a weakened global demand, China had to transform itself from an export-driven economy to rely on investment for GDP growth.

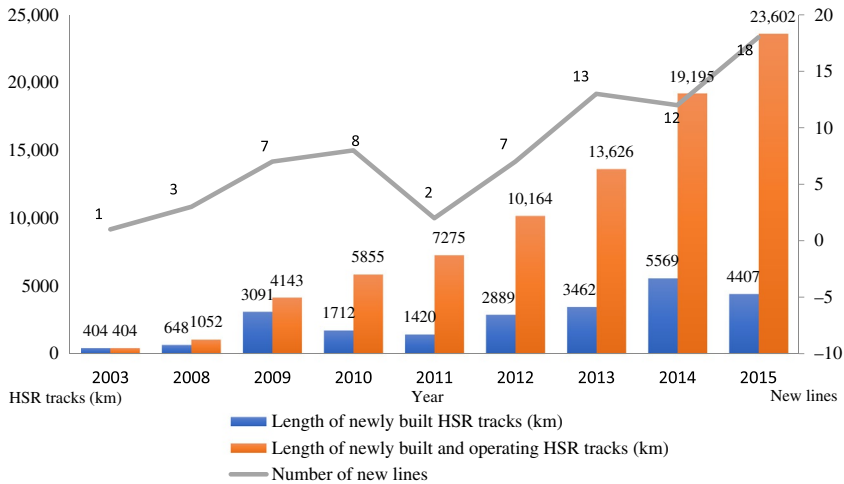

FIG. 1 The progression of the Chinese HSR network. *(Data from Chinese Ministry of Railways, 2016. Available at: http://www.china-railway.com.cn/.)*

2.3 Government support

In the period when the Chinese government began to plan the large-scaled HSR project, there was no shortage of financial resources. This is the main reason why the Chinese HSR network could be built and has achieved substantial success in such a short period of time. However, according to the China State Railway Group Co., Ltd,[a] which is a state-owned HSR operator, about two-thirds of its debt was from HSR construction, and most of the HSR corridors are not profitable. The big exception is the Beijing-Shanghai HSR corridor, which earned 6.58 billion RMB (1.01 billion USD) in 2015. Five other lines including the Ningbo-Hangzhou line also started to gain profits. However, other lines and corridors, especially those in western China, remain stuck in losses, such as the Xi'an-Zhengzhou line, operating at well below capacity (Garst, 2016). Even so, the government still invests billions of dollars every year in its development. In fact, there are a lot more indirect benefits of HSR, including spatial transformation. This is also the case in Spain, where the first HSR line began operation along the corridor between Madrid and Seville in 1992. It now has the longest HSR system (2515 km) in Europe, due to the fact that the Spanish government has regarded the HSR development as a priority in its transport policy. Spain was the only country in Europe that started to build the HSR network from a less populated city (Seville) since the main objective of HSR development is to promote economic growth in poor regions. This case also perfectly proves the impact of the government initiative on spatial transformation. Also, the Spanish HSR is not financially viable. Even in corridors with high passenger demand, the HSR system still needed to receive huge public subsidies from the government to maintain daily operations. In fact, HSR lines in Spain have received European Union subsidies for reginal development, ranging between 30 percent to 50 percent of total construction costs.

By contrast, other countries, such as the United States and Canada, are still hesitant about (or even shied away) from HSR investments (Albalate and Bel, 2012). Indeed, the US government faces far more obstacles in HSR development than the Chinese government does. In April 2009, they announced the blueprint for the construction of a national HSR system, but the debate about the costs and benefits of building an HSR system in the US still remains a controversial issue, and some policymakers did not think that it is socially profitable to do that. Moreover, labor costs are low in China, and it is not much of an issue to acquire land when the government owns all the land. However,

a. China State Railway Group Co., Ltd. (formerly named as China Railway Corporation) is a state-owned sole proprietorship enterprise that provides railway passenger and freight transport services via 21 subsidiaries in the People's Republic of China. It is a state-owned industrial enterprise established under the "Law of the People's Republic of China on All-Ownership Industrial Enterprises." The Ministry of Finance acts on behalf of the State Council to perform the duties of shareholders.

this is difficult to achieve in the United States. From this point of view, we can conclude that it is very difficult to develop HSR without government support, and as a result, there would be no spatial transformation caused by HSR development.

Even though the political and economic centers, i.e., the capital region, the Pearl River Delta region, and the Yangtze River Delta, did enjoy priority in the development of the Chinese HSR network, its evolution is relatively even in China, especially in eastern and southern parts of China (Chen et al., 2018). This is in stark contrast to countries where a radial network was developed and centered on particular cities (e.g., Madrid and Paris in Spain and France, respectively) (i Queralt and Falco, 2011). The cost advantage is another unique characteristic of the Chinese HSR network. According to Ollivier et al. (2014), the Chinese HSR network has been accomplished at a relatively low unit cost that is at most two-thirds of that in other countries. They further argued that the relatively low labor cost and the large scale of the HSR network planned in China are the two main reasons for this cost advantage. Besides, this cost advantage is closely related to the Chinese government initiative, i.e., the huge investment in building viaducts and bridges. In fact, the Chinese HSR network prefers to lay track on viaducts so as to mitigate harmful environmental effects and to minimize the use of fertile land and resettlement costs. The estimated cost of viaducts for a double track line ranges from RMB 57 to 73 m/km (USD 8.34 to 10.69 m/km) (World Bank, 2014b). Such costs can be kept low due to the standardization of the design and construction process for casting and laying bridge beams on viaducts. Therefore, the spatial patterns of HSR network development, as well as the government initiative, play an essential role in gaining competitive advantages of the Chinese HSR.

The Chinese government has promoted HSR as the key project due to the fact that it has not only construction and operation contributions but also positive effects on economy, society, culture, and environment. The vast land area and densely populated cities in central and eastern provinces trigger Chinese HSR development. Cities with high population densities along the corridors, suffering from road and air congestion, are more likely to ensure the financial viability of HSR operations. Some important metropolitan areas linked by HSR are also important aviation destinations, and hence these two modes are competing with each other, especially in short-haul to medium-haul markets. For example, HSR traffic volumes were significantly larger than air traffic volumes in the market between Shanghai and Beijing in 2009. This is understandable, since the majority of the Chinese population still regard air transport as a “luxury transport mode” because of the relatively low average income (Fu et al., 2012). In this case, the government is now building new lines over greater distances and expanding the HSR network to the less-developed and less-populated western regions in order to solve these problems to some extent.

3 Looking to the future: HSR and regional development

In China, HSR entries have huge and direct impacts on transport and regional systems. In terms of HSR's impact on existing transport modes, it appears to be competitive with airlines (Givoni and Dobruszkes, 2013; Bergantino et al., 2015; Jiang and Zhang, 2016). However, with its rapid development and expanded network, HSR can be a catalyst to stimulate integration with other transport modes and with the transport system. It is important to integrate HSR with other modes due to the fact that integration is able to mitigate environmental pollution and relieve airport congestion (Pfragner, 2011; Jiang and Zhang, 2014; D'Alfonso et al., 2015, 2016), and some issues related to HSR's integration need to be further discussed in the following section.

In 2013, China initiated the "One Belt One Road" (OBOR) (now the "Belt and Road Initiative" (BRI)), which involves countries and regions across Asia, Europe, and Africa and aims to promote the connectivity, and establish and strengthen partnerships among these countries. The implementation of BRI would definitely bring more opportunities and challenges to HSR development. Given the history of a strong Chinese capacity to engineer changes in past decades, including the transport systems (e.g., expansions of ports along the Chinese coastline in the 1990s and early 2000s, the HSR network in the late 2000s), it is expected that at least part of BRI will occur. Therefore, it is necessary to take BRI into consideration when discussing future issues of HSR development.

Based on this background, looking to HSR future development, we hereby make four predictions:

(1) HSR services are likely to affect the spatial distribution of employment and population.
(2) An integrated HSR network with other transport modes, especially airlines, is to be expected.
(3) HSR Freight will connect major Chinese logistics sites, and regional impacts of this new logistic mode are going to favor established and large locations.
(4) The long-distance international HSR services will begin operation and have positive effects on regional development, but the impacts may be less than we conventionally expect.

3.1 Spatial distribution of employment and population

Since the busiest HSR line, the Beijing-Shanghai line, started operation in 2011, we can conclude that HSR is helping to create a deeply connected economy. The advent of HSR has started to change life and work, especially in Beijing, Shanghai, and Guangzhou (three megacities in China located in the northern,

central, and southern part of the country, respectively). Now, each of these three megacities is developing commuter corridors in order to reduce commute time. Many people have begun to live within one hour of megacities by HSR because of the high real estate prices in these cities (The Economist, 2017). In the foreseeable future, more people will enjoy the benefits of urban agglomeration while not suffering from high levels of traffic congestion, pollution, and rents, because HSR enables passengers to access megacities without living within its boundaries. In addition, the introduction of HSR facilitates firm fragmentation and firm sorting depending on their unique requirements for megacity access. HSR services provide the possibility that firms locate their headquarters in major cities and send other activities to surrounding low-cost cities. For example, after the launch of Tianjin-Beijing HSR line, which only takes half an hour in travel time, several large firms have kept their headquarters in Beijing while transferring their manufacturing factories to Tianjin. As a result, the lower value-added activities[b] are expected to shift from megacities to (nearby) low-cost cities, while the headquarters in megacities will focus on developing high (or even higher) value-added services. This trend is likely to be adopted by more and more companies with the expansion of the HSR network towards second- (*erxian*) and third-tier (*sanxian*) regions. Therefore, it is expected that HSR will have increasing impacts on the spatial distribution of employment and population.

3.2 An integrated HSR network

In China, air transport is not fully deregulated and well-developed: some remote areas cannot be reached by air. Although airport connectivity has improved in general, its density will not likely be sufficient in the coming decades, considering the country's huge population. Hitherto, almost every major Chinese airport has faced runway capacity shortages, resulting in increased delay and congestion. In this case, the government is now building new lines over greater distances and expanding the HSR network to the less-developed and less-populated western regions so as to solve these problems. Simultaneously, in some particular cases, governments encourage the cooperation between airline and HSR by providing connections between nearby cities and airports. The hub-and-spoke network adopted by most major airlines makes such airline-HSR complementarities possible. In China, there are several airline-HSR cooperation cases, mainly aimed at reducing airport runway congestion, subject to capacity constraints. For example, the Beijing-Tianjin HSR line helps transfer passengers from Beijing Capital International Airport to Tianjin Binhai International

b. Lower value-added activities refer to activities that consume resources but add little value to customers or companies. Examples of such activities include setting up machines, moving product parts, waiting, reworking, inspecting, and storing.

Airport, and all travel costs between Beijing and Tianjin will be subsidized by the airport. Most of these cases connect regional spaces to main transport infrastructures so as to reinforce the secondary transport networks (Jiang et al., 2017; Li et al., 2018; Xia et al., 2019). We believe that there will be more and more such cooperation cases in the future. Such an integrated transport system is likely to change the spatial structure of the whole network, and the reinforcement of secondary transport networks can modify the urban hierarchy of the spatial system. In the existing HSR network, the political and economic megacenters enjoyed priority in the development process, so there is a big city bias in impacts. However, we also perceive that a more integrated HSR network with other transport modes will help to relieve such a bias, since it enables more currently underdeveloped regions to be integrated into the network. The spatial penetration of HSR can be improved by the integration between HSR and other transport modes (Yin et al., 2015). By doing so, the HSR network grants access to regional population, and finally, decreases the level of uneven regional development.

3.3 HSR freight

At first, Chinese HSR lines were only passenger-dedicated lines, and then passenger-freight mixed lines were introduced in recent years. According to the State Post Bureau, China's express delivery volumes exceeded 30 billion in 2016, rising by 53%. Nowadays, China is the world leader in terms of express delivery volumes. In October 2016, HSR Express services launched on trial to offer customers high-end door-to-door small parcel express service. We expect the HSR Express to become a new logistics mode connecting major logistics sites in China due to the surging demand for express delivery and the rapid development of e-commerce in recent years. The infrastructure and technological improvements made by HSR freight will lead to increased freight capacity, which creates new and growing routes to trade and business. At the same time, more firms may shift from offline to online trade. This will be a stimulus to boost intraregional trade.

In recent decades, the role of transport, and the scale and location of transport activities, have been reshaped by a complex set of interfirm linkage associated with the global production network. Saxenian (2002, 2006) showed that communities play an important and complementary role in the development of global production network, and emphasized the "transnational elite community," which has the tactical knowledge and skills to create new responses within the industry and in its related infrastructure. They have proven that there are now several forces operating within and through transport infrastructure and logistics services at a global scale that reinforce the idea that regional impacts of transport systems favor established and large locations. According to this line of discussion, we believe that regional impacts of HSR freight are going to favor established and large locations.

3.4 Long-distance international HSR services

As part of the BRI initiative, China plans to connect its HSR lines to 17 countries in Asia and Eastern Europe. Additional rail lines will be built into Russia as well as South East Asia, in what will likely become the largest transport infrastructure project in history. In this case, China plans to install 81,000 km (50,000 miles) of HSR lines, involving 65 countries. With this improved connectivity between different regions, a new intercity relationship is going to be expected.

In most cases, HSR is regarded as a short- or medium-distance transport mode. However, long-distance international HSR services are gaining more attention and may even revolutionize the concept of HSR. They are likely to facilitate the exchange of information, economic, technological, and labor flows along these international HSR corridors. These new corridors may provide positive effects on regional development from urban centers and reconfigure urban economic geography both regionally and nationally, due to the fact that the primary cities in BRI are underdeveloped northwestern cities. This indicates that the Chinese government provides an opportunity for peripheral areas initially disadvantaged by distance from the core areas. The cross-nation HSR network is likely to stimulate the integration of the Chinese regional economy.

However, even though the cross-border network has been seen as a priority of the HSR future development strategy in terms of BRI, problems of jurisdictional segregation and competition between various countries may prevent the creation of new services that could transform regional performance. For example, the China-Pakistan economic corridor (CEPC) passes through some of the world's most vulnerable and conflict-ridden territories. Pakistan has been combating an Islamist insurrection for more than a decade. Beijing worries about militants from Pakistan's federally administered tribal area possibly penetrating China's western Xinjiang province, which has its own unrest. Meanwhile, some political parties in Pakistan have expressed deep reservations about the CPEC, claiming that the ruling party is deliberately trying to alter the design of the corridor to favor its own constituencies. Moreover, the relationship between central and local governments may pose threats to the construction of these international HSR lines. Although agreement and consensus have been reached between national governments, local governments, who will implement the whole project, may not be willing to cooperate with foreign investors and ignore the national government's policies. Therefore, the expansion of the Chinese HSR network worldwide in parallel with the improvement of the regional competitiveness may decrease the level of regional uneven development, but the real impacts may be less than we conventionally believe, given that international projects covering so many countries may be promising at the beginning but will be difficult to pursue.

The above suggests that HSR can be an important mode to improve equality of intercity accessibility and the external agglomeration economies. In the

future, a more mobile workforce and newly accessible markets, a more integrated HSR network, and a new logistic mode will be expected. Such large-scale implementation of HSR network cannot be achieved without government support. On the other hand, new and major government initiatives (e.g., BRI) may generate fewer impacts than we have initially hoped for on the spatial transformation of transport and regional systems when other countries are involved.

4 Conclusion

The governments of many countries and regions attempt to engage remote or peripheral regions within national or continental networks, notably transport investments and institutional changes. In some cases, this has led to spatial transformation in both the transport and regional systems. However, the impacts of government initiatives on the transformation of transport and regional systems are currently underresearched, and this chapter attempts to address this deficiency. It consists of an in-depth case study on the development and management of HSR in China. By doing so, it offers important contributions through establishing a comprehensive framework on the impacts of major government initiatives on the spatial transformation of transport and regional systems, and therefore filled this gap. It illustrates the major reason why the Chinese HSR network has achieved extraordinary success, namely the Chinese government always financially supports and encourages its development and expansion. At the national level, we argue that government initiatives are very likely to have positive impacts on the transformation of transport and regional economies. However, at the international level, such impacts may be more limited. Our analysis suggests that government initiatives on transport and regional systems can be highly diversified based on physical locations, economic and social systems, institutional, and even cultural issues between various countries.

The regional focus in this study may have its own limitations and the results may not reflect the situation of transport systems in other countries. Despite this, it offers a solid theoretical foundation and practical reference for the implementation of other government initiatives in the future. Moreover, we recognize that governments and related public sectors play pivotal roles in the spatial transformation of transport infrastructure programs. Thus, our analysis contributes valuable food for thought on what the right approach should be for policymakers when initiating major investments under diversified circumstances, and how success should be assessed. The insight gained from this paper can help policymakers to develop effective approaches in transforming transport and regional systems, improving their efficiency and management, thus facilitating the development of international trade and the global economy. Otherwise, substantial money and time may be wasted during implementation processes. In terms of the environmental perspective, however, some of BRI's major corridors are known to pass through ecologically sensitive areas. Increasing interconnectivity between countries through the initiative could mean dissecting these natural

environments with the construction of roads and rail, and such disruptions would threaten the surrounding environment system. It is worth considering the environmental impacts caused by the new government initiatives, to design a sustainable framework that could determine the overall environmental impact, and ensure the project participants' willingness and ability to adhere to it.

However, one thing that we need to emphasize here is the approach of how government initiatives are presented. Although new and major government initiatives are always regarded as the locomotive for transformation, the actual impacts remain a vivid debate among politicians, industrial practitioners, and scholars. Given the persistence in economic differences between regions and countries within the BRI network, there is a real possibility that some countries may reject this initiative. Moreover, the new institutional settings created by the new government initiatives may not be suitable to all the involved regions due to diversified institutional and political histories and systems. The spatial transformation of transport systems caused by the government initiatives may make some of the involved regions' transport infrastructures uncompetitive. Due to this, they may reject the initiatives in order to protect self-interests. Such initiatives might induce a competition effect among neighboring regions for potential regional investors. In this case, governments need to consider the extent of spatial competition and implement mechanisms, which help prevent such behaviors. Therefore, we strongly advise policymakers to be careful on the arts of presenting and managing new and major initiatives. If the initiatives are presented too aggressively, they may not get the desired results that they look for.

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Further reading

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