Political and Economic Aspects of the Development of the Railway Transport of China from 1949 to 2016

U V Ezhelya

1 Far Eastern State Transport University, Khabarovsk 680000, Russia
E-mail: siavassa@yandex.ru

Abstract. The article considers major the tendencies of development of railway transport system of China, in close connection with research previously conducted in this field. The authors seek to identify mechanisms to accelerate the development of the railway industry, and ways to resolve current complicated economic and transport problems of China. Existing information allows us to see that the foundation for the great success of the railway policy in the 1990's and the first decade of the 21st century was laid back in the late 1970's. Close and mutually beneficial cooperation of China with countries that are leaders of railway production, and efficient use of their experience, in terms of a flexible investment policy, promote the steady development of the national railway transport system. The author used materials from Russian publications, research, statistics and IT.

1 Introduction
The development and improvement of transport communications is one of the priority areas of a modern economy. The People’s Republic of China has achieved remarkable success in the field of railway transport. The following facts show the effectiveness of the policy of the PRC in the field of rail transport. In 2006 the country was third in the world for the length of railways, after Russia (75.5 thousand km). By late 2009, the rail length of the People’s Republic of China and the Russian Federation was practically equal (86 thousand km). Since 2007, China has been a full member of the G-8 countries with high-speed railways. The length of high speed railways in the PRC reached 9.3 thousand km in 2012: the longest distance in the world. The same year, the country had the highest rate of electrified railroads – 48 thousand km, and thus left Russia behind. Since 2014, China has been actively promoting the large-scale One Belt, One Road (OBOR) initiative, thus confirming its desire to participate in the international railway network. The so-called Silk Road is designed to solve the problem of the lack of developed transport links between Asian countries by removing barriers to the flow of goods and helping restore the historical role of China in the world market [1; 2; 3; 4].

2 Topicality, Brief Literature Review and Problem Statement
The experience of China in the field of rail transport in the 21st century is an essential subject for research. Russian specialized publications Zheleznye Dorogi Mira (Rail International) and Zheleznodorozhnyj transport (The Railway Transport) pay much attention to Chinese developments, Russian specialists closely monitor the work of Chinese scientists and also publish their research on the history of railway construction in China [1-30]. The author seeks to reveal the nature of the “Chinese miracle” in the development of the railway industry, and the political and economic measures of the Chinese government which contributed to such rapid development.

3 Research Description
The first “railway spurt” in the history of the PRC was made in the 1950s. Serious assistance in this attempt was provided by other socialist countries and especially by the USSR. The formation of the People's Republic of China in October 1949, the completion of an agreement between the Soviet Union and the PRC in February 1950, and the subsequent transfer of the Chinese Changchun Railway
(also known as the Chinese Far East Railway or North Manchuria Railway) to the national ownership of the PRC, opened an era of close and fruitful cooperation in the field of railway construction between the two countries. The goals and objectives of socialist construction, as well as the methods for their implementation, coincided in the two friendly countries at that time of their historical development. It was during those years that the Chinese builders with active assistance from Soviet specialists, constructed high-class railway bridges. Among them is the bridge across the Yangtze River near the city of Wuhan which is a most important bridge for the Chinese economy. It was built over a period of 2 years and was put into operation in October 1957.

Railways linked difficult to access regions with more economically developed regions of the country: they stretched across the woodland regions of the Da Hinggan Ling and Xiao Hinggan Ling mountainous regions, and reached the borders of the Socialist Republic of Vietnam and the Republic of Mongolia. In 1953 a new rail line Lanzhou–Ürümqi–Alma-Ata was built; the rail-line from Ürümqi to the then capital of Kazakhstan, Alma-Ata, was 1,000 km. This railway linked North-West China with Central Asia and the track went further in the Soviet direction: Alma-Ata–Orenburg–Kuibyshev and Orenburg–Kinel’–Syzran’. Putting into operation the through service Beijing–Moscow and Beijing–Pyongyang contributed to strengthening the economic and cultural ties between these countries. In early 1961 an international express Moscow–Beijing train roared along the Harbin mainline three times a week. In 1956 another international project was implemented: a 1050 km long railway line Ulan-Bator–Jining was built; 338 km of this line was laid across Chinese territory to the Mongolian border city Erlian (Ereen). The line extends to the capital of Mongolia. In Chinese territory, the railway was built by Chinese railroaders, and Mongolian railway builders were assisted by Soviet specialists. The constructors of this railway employed equipment produced in China as well as in the USSR, Czechoslovakia and Hungary. In 1955 the Ministry of Railways of the PRC supervised 10 rail mainlines.

A fundamental role in the development of the railway transport system of the People’s Republic of China was played by the development of its regulatory and legal framework. The former political regimes deliberately did not create unified norms and rules for railway management. Among the main guidance documents common to the entire network of railways in China are the Rules for Technical Operation and Instructions for Traffic and Signaling, schedules and timetables, and unified tariffs for transportation. In 1956 the standard track gauge in China was set at 1435 mm (the uniform European gauge). However, very often the development of new documents took into account the time-proven experience of Soviet standards. Thus in 1956, the Ministry of Railways of the PRC adopted a new Technical Charter for the design of railways, taking the Soviet version of 1953 as a basis. Chinese experts noted that in the development of many technological processes they studied the experience of the USSR. In 1959, for the first time in China, the Baoji–Fengzhou section was electrified, operating on alternating current.

The appeal of the Soviet experience with advanced labor methods and socialist competition in the labor collectives of the People’s Republic of China was natural. Hero of Labor, railroad engineer, Li Yun, and China’s first female railroad engineer, Tian Guiying, are well-known in China [5; 6; 7].

The period spanning the decade of the 1950s and early 1960s was very effective for the formation and development of China’s railway transport system, and its regulatory and legal framework. Obviously, there was much in common in the recent history of both China and the USSR in the field of domestic policy, the methods of organizing reconstruction and social labor, the priorities of the state economy and ideology, and the factor of party leadership. China, its party leadership, workers and engineers of the railway transport accepted the many-sided experience of cooperation with the Soviet Union with gratitude and great benefit, and thus provided the starting positions for further transformations of the railway industry. The subsequent decades (1960 – 1970’s) were filled with quite complex processes in their economic and political life (the policy of the "Great Leap Forward" and the "Cultural Revolution") [8]. Nevertheless, railway construction continued in this difficult period. For example, in 1969, on the 20th anniversary of the foundation of the People’s Republic of China, the first stage of
the Beijing Metro (23 km and 17 stations) was commissioned – the first-born of the Chinese metro systems.

In 1976 the power of left-wing radicals in the government and the Communist Party of China passed. Since 1978, state planning in the sphere of international trade has taken place in two forms – directive and commercial. The government began to grant broad rights to individual provinces to carry out international operations and attract foreign capital. In July 1979 a law on the establishment of joint businesses with the participation of foreign companies and their investment in China was passed [9]. In the same year the government announced a policy of “settling the economy”. In particular, a number of unprofitable enterprises were closed; the volume of capital construction was reduced. Allowing greater autonomy to industrial enterprises and allowing small private enterprise activity were among the methods of reforming the economic system [10; 9]. The 22nd Congress of the Communist Party of China (1982) made a critical analysis of the mistakes of the preceding political course (1960’s-1976) and set the goal of “intensifying socialist modernization”. A huge role in the resolution of these problems was assigned to rail transport. Thus, the PRC’s political goal of building a socialist society remained unshakable, but the exact methods and controls of its implementation became more flexible and diverse. To Russian historians, these steps are reminiscent of several models of the economic development of the Soviet economy. It is the New Economic Policy (NEP) (the independence of enterprises and the emergence of private traders and foreign concessions in a socialist state) and the policy of M. Gorbachev on the modernization of socialism.

The 1980’s were the beginning of great changes in the PRC. The forbidden door to the capitalist world was opened. Cooperation with the technologically advanced railway countries in the world was used by the Chinese very productively, with the prospect for future independent development. The Chinese side concluded mutually beneficial contracts for the supply to China of diesel locomotives, electric locomotives, refrigerator sections, wagons, including for the metro, mechanical equipment, and electrical appliances, etc. Among the European partners of the PRC were British, French, Swiss and Belgian companies, Swedish electrical and West German companies, a European consortium, a wagon building company of the German Democratic Republic (Dessau), and Asian suppliers (Hong Kong and Japan) [11; 12; 13; 14; 15; 16]. Thus, a fairly short period of the late 1970’s and the decade of the 1980’s opened a number of features in the Chinese railway policy to world economics – the transfer of railroads to mixed ownership or to local (district) administration was officially permitted. Further, the Chinese government decided to denationalize the financing of the railway industry (due to a shortage of public funds, to activate alternative investors, to involve their funds in the national turnover). They encouraged the independence of the border areas, and focused on cooperation with foreign countries in the field of locomotive building. In the social sphere an attempt was made to get away from the practice of lifetime employment to a contractual system (a Western option), which was very complex and not always successful [30]. Thus, China opened the possibility of combining the strategy of state leadership with a multivariate practice to resolve the most complicated economic issues.

In the period of the realization of the 6th five-year plan (1981-1985) China built 1,300 km of new railways, laid 1,700 km of new tracks and electrified 1,300 km of railways. The PRC became the fifth in the world for the length of railway lines (51,000 km). In 1985 the rail freight turnover of the Chinese railways reached a record for the whole of the previous period – 1.27 billion tons [15].

The cooperation of the People's Republic of China and the USSR in the field of railway transport is a special page in the development of the two bordering countries. Russia pinned its hopes on the revival of mutually beneficial relations. In 1989, the exhibition, Days of Science and Technology of China, was held in Moscow in the territory of the Exhibition of Economic Achievements, dedicated to Chinese achievements in the 40 years since the founding of the PRC [17]. In September 1990, the ceremony of laying the “golden” junction took place, connecting the railways of the PRC and the USSR. The construction of the Urumqi-Druzhba line (470 km), begun in 1985, was completed. Regular freight and passenger traffic was opened in the second half of 1992 [11]. In 1990, China's railway transport system became profitable for the first time.
In the 1990’s grants of the Asian Development Bank began to be applied. The synthesis of state and private sectors of the national economy was created, shares and securities were used, and land plots along the railway lines under construction were involved in the financial turnover. In 1993 it was decided to reorganize the network of railways and railway transport industrial enterprises, since it was recognized that internal problems were the main reason hampering the development of the country’s economy. These processes have become the subject of research by Chinese economists. In particular, they are reflected in the thesis of Li Xiao Mei [18]. One of the tasks of his scientific work was “the study and thorough analysis of the methods of managing the transformation of the PRC’s economy, the methods and results of the transfer of enterprises and organizations to market conditions for free competition of the world market, and openness to cooperation of the PRC with all countries of the world”. The researchers consider these factors to be definitive to the modern success of the Chinese economy [19]. The close cooperation of the PRC with foreign companies, as well as the practice of external loans, was effectively continued in the 21st century while being organically integrated with traditional five-year plans. The International Bank for Reconstruction and Development has provided the 7th loan portfolio for a sum of $500 million (with the desired investment of $1 billion) for the development of the railways in 1995-1996. The Asian Development Bank (ADB) allocated a sum of $400 million to address the construction of the Xi'an-Ankang line and the reconstruction of the Beijing-Jiulong line. In addition, ADB gave a grant of $600 million for the development of new traffic schedules, tariffs, and financial and accounting systems for the reconstructed line [13].

The pride of the PRC is the Qinghai-Tibet Railway – the world’s highest railway, called “The Road to the Roof of the World”. The origins of this ultra-modern steel road date back to the early 1920’s. The idea of construction belongs to Sun Yat Sen, who dreamed of building 100,000 kilometers of railways in China. But only by the beginning of the 21st century did China reach the level of technological readiness for the ambitious construction of a high-level railway. The construction project of the Qinghai-Tibet route was approved in 2000 by the Chairman of the People’s Republic of China, Jiang Zemin. The economic idea of construction was the development of Western China, and the strengthening of ties between an autonomous Tibet and the main Chinese territory. The political meaning was to demonstrate the capabilities of the Asian state. The project cost was 3.68 billion dollars. Terms of road construction were established from July 29, 2001 to October 15, 2005. Regular passenger traffic on the Qinghai-Tibet highway was opened on July 1, 2006. Special rolling stock for the Qinghai-Tibet road was developed; its development involved the American corporation, General Electric, and a Canadian concern, Bombardier.

By 2015, according to the plan approved by the State Council of China, the length of high-speed railways was expected to grow to 18 thousand km, and the total length of the railway lines in the country was supposed to increase to 120 thousand km [20]. The dreams of the great Sun Yat Sen had become a reality.

4 Conclusion

Summing up, I would like to point out the role of the People’s Republic of China among the countries that were considered close in the recent past. These countries had similar ideologies, concepts of socio-economic development, and internal and external policies. Among these countries is a comparatively small Asian group (this group is small but these countries have not reverted from the socialist path they had chosen) – Vietnam, North Korea, and Mongolia; Laos and Cambodia had once been mentioned among them. Next comes a group of European countries: Poland, Hungary, Romania, Bulgaria, Albania and along with them East Germany, the Czech Republic, Slovakia, Slovenia, Serbia, Croatia, and Montenegro, now under new territorial and governmental status. The Russian Federation, a powerful Euro-Asian multinational state and China’s immediate neighbor, plays a special role. We also remember Cuba. All those countries, without exception, have undergone tremendous changes caused by the disintegration of the Soviet Union in December 1991. Some of them have obtained what they had long dreamed about (reunion or, on the contrary, dissociation), some of those countries are experiencing vulnerabilities without the support from outside they had been accustomed to.
In this connection, the successes of the People’s Republic of China deserve special regard. The Chinese Government has determined its own self-dependent path of development in the sphere of the railway transport system in particular and the results achieved testify to the efficiency of the economic measures accomplished.

The republic retains unshakeable policies: such attributes of socialist practice as the leading role of the Communist Party and the supreme power of its congresses, five-year plans, and competitive movement among production collectives, etc. This same leadership during the last decades relentlessly embodied all the innovations of scientific and technical thought, gave scope to commercial projects of differing scales, and has practically independent domestic and foreign policy, including monetary and financial policies. In terms of technical development, Chinese rail transport is comparable to Germany and the United States that have powerful historical traditions in transport engineering. By quantitative indicators, China has caught up with the huge Russian rail network. Since the early years of education to the present day, the People’s Republic of China has steadfastly reached for these heights. China went its own way, in a special way, under the conditions of one-party leadership, and faithful socialist ideology, but not rejecting in practice flexible measures in railway construction and the development of vehicles. The phenomenon of China is a balance of contradictions, achieved by a very flexible policy. This kind of development path is worthy of research.

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