Innovations for China's highway funding and financing system

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Abstract: In the past 30 years, China's highway funding and financing system has funded a large number of highways. With the reform of the national fiscal and tax system, and national funding and financing system, the environment being faced with the highway financing is undergoing great changes. The highway funding and financing system must be innovated. Firstly, this report summarizes the status of highway funding and financing system, and the new requirement being faced with. On the basis of these, the report analyses the ideas and approaches of the innovation for the highway funding and financing system.

1. Status of the highway funding and financing system

1.1 History

Since the founding of the People's Republic of China, and especially since the Reform and Opening up, China's highway funding and financing system has actively adapted to the requirements of the national economic system, closely followed the needs of highways, and made full use of international experiences to continue innovation. From a single government planned fund system in the past, it has evolved into a "central funding, local financing, social financing, and the use of foreign capital" system, which has funded a large number of highways. It has gone through three stages:

The first is the stage when the government plans to fund(before 1984). After 1958, China's highways implemented a locally-based hierarchical system, and locals were responsible for highways and roads. Highway funds mainly depended on the budgetary allocations of the central and local governments. By levying highway fees, it provided funds for the maintenance of national and provincial highways. Rural roads were mainly based on the people's labor. The central only granted certain subsidies for the national highways. Provincial highways, county and township roads, were from local budget funds. Due to the limited financial resources at all levels, China's highways is weak and the total amount is insufficient, and it has become a bottleneck that restricts the national economic and social development.

The second is the stage of market-based financing (1984-1992). In 1984, the State Council issued three policies on highways financing: Levying a surcharge on vehicle purchases, Raising fees for highway maintenance, and Introducing loans to highways and pay off tolls. These have opened up a relatively sTable source of funds for the central and locals to highways. Breaking the single financing system that relied on the budget for highways, the market-based financing was opened, which laid a solid foundation for highways financing. Until today, it is still the cornerstone of highways financing in China. Toll highways have gradually begun to develop, and loans have become an important funds for highways. In 1988, the first expressway in China, the Shanghai-Jiading Expressway, was opened to traffic, which verified the influence of the market-based financing system.

The third is the stage of full market-based financing (1992 -2014). In 1992, Deng Xiao-ping's Southern Talk established the direction of the market economy in china, and the highways entered the stage of full market-oriented financing. The adoption of the Highway Law in 1998, the Regulations on the Administration of toll highway in 2004 and the Regulations on the Transfer of Rights and Interests on toll highway in 2008, have stabilized the expectations for social capitals and

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stimulated market vitality. The Highway Sector, based on the two special fees and taxes of car purchase fees/taxes and highway maintenance, has used the toll highway as a fulcrum to leverage loans and social capitals, and has promoted highways in China. During the period, the Highway Sector actively opened up new financing channels, raised funds from various sources, and various financing tools such as stocks and bonds showed a "blowout" trend.

1.2 Experience

Summarizing the different stages of the innovation of the highway funding and financing system, in general terms, through making full use of the market-oriented financing and the budget, the highway funding and financing system with Chinese characteristics has been formed Specific experiences include:

First, to give full play to the market-oriented financing. In order to change past situation of relying solely on the budget, The Highway Sector has seized the favorable opportunity for the reform of the national economic system, continuously played the role of the market-oriented financing in highways, and promoted highways. In particular, in 1984, the State Council promulgated the policy of "loans to highways and pay off tolls", which greatly invigorated the market and gradually formed the highway funding and financing system of "central funding, local financing, social financing, and the use of foreign capital". China's toll highways have grown from scratch, from small to large.

Second, to give full impetus to local initiatives. The highway has a long line and a wide range of features. These need to give full play to the central's overall coordination of funds and balance the transfer and payment functions of urban and rural in the region, also need to give play to local initiatives and shift more responsibility for highways. these need to give locals more decision-making autonomy, the right to raise funds, creating a situation in which there is both centralized and unified, and there is flexibility. In the past 30 years, the special funds for vehicle purchase tax have played an active role in implementing the enthusiasm of the central. Credit financing and direct financing have played a positive role in the implementation of local enthusiasm, forming the institutional advantages of Integrated collaboration between the central and locals, and creating a good situation for rapid upgrade of highway in various regions.

Third, to set up special funds for highway. Drawed on international experience and followed the principle of "passer pay and beneficiaries pay", It has successively been introduced of a surcharge on vehicle purchase (later changed to vehicle purchase tax), and highway maintenance fees at the central and locals (later incorporated into the consumption tax on refined oil products). These have provided a stable funds for highways, also released stable expectations to social capitals and bank credit.

Fourth, to create the unified loan system. Combined with the characteristics of the network of highways, the creative use of the "unified loan system" policy has promoted the coordinated upgrade of highways.

1.3 Problems

With the reform of the National fiscal and tax system, and the reform of the National funding and financing system, the funding and financing environment being faced with highways has undergone great changes. In particular, the Opinions of the State Council on Strengthening Local Government Debt Management, the Decision of the State Council on Deepening the Reform of the Budget Management System, and the newly revised Budget Law, Guidance of the State Council on Encouraging Social Investment in Investment and Financing Mechanisms for Innovative Key Areas, As well as the issuance of the State Council's Guiding Opinions on Promoting the Reform of the Division of Fiscal Powers and Expenditure Responsibilities between the Central and Local Authorities, the current financing system can not meet highway funds. In particular, it can not meet the requirements of the National fiscal and tax system and can not effectively meet the historical process of the Transportation Giant to enter the Transportation Power.

1.3.1 Not meet the requirements of the national fiscal and tax system

First, the government financing function of the highway financing platforms was cancelled. Opinions of the State Council on Strengthening Local Government Debt Management requires a clear demarcation between the government and enterprises. Government debt can only be borrowed by the government and its departments through bonds, and it is not allowed to be borrowed by enterprises and institutions, and the government financing functions undertaken by highway financing platforms must be stripped. The highway financing platforms must not add government debt.

Second, government debt be fully incorporated into government bond. According to the documents of the State Council, the non-profit-making public welfare undertakings shall be financed by general bonds issued by local governments and incorporated into general budget to repay debts with general budget revenue. In the future, the public welfare undertakings such as toll highways with certain benefits can be funded by local governments through special bonds and incorporated into government-managed funds. The scale of local government bonds shall be implemented within the limits after the State Council reports to the National People's Congress for deliberation. At the same time, the use of government bonds should be fully incorporated into budget and subject to the supervision of the people's Congresses at the same level. How much government bonds can be used for highways, mainly depending on the government finance.

Third, there is a mismatch between the central and local fiscal power and expenditure responsibilities in the field of highways. Documents such as the 18th CPC National Congress and the Third Plenary Session of the 18th CPC Central Committee call for the establishment of a system that is commensurate with the responsibilities of affairs and expenditures, the modest strengthening of the central power and expenditure responsibilities, and the standardization and legalization of government affairs at all levels. At present, there are still problems in the field of highways, such as the unclear, unreasonable and irregular division of power and expenditure responsibilities between the central and locals, such as the national highways, which should serve as the central power of affairs. During the 12th Five-Year Plan period, the proportion of central subsidies accounted for an average of only about 15 % of total funds, and local pressure was large. With the division of power and responsibility for expenditure, the corresponding funding and financing system, funding standards, budget and other aspects to make corresponding improvements.

1.3.2 Insufficient capacity of central special funds

First, special funds is still unsTable. In the process of the reforming of the National fiscal and tax system, Some recommendations have been proposed that the vehicle purchase tax be adjusted from the central tax to the local tax, and included in the general budget for overall use. In addition, the exemption of new energy vehicles from the vehicle purchase tax, the vehicle purchase tax has been eroded, and the scale of tax revenue has dropped.

Second, there is a large gap in the revenue and expenditure of special funds. The "13th Five-Year Plan" period is a key stage in the rapid integration of China's highways. In order to complete the National highway plan and poverty alleviation planning tasks, it is estimated that entire "13th Five-Year Plan" vehicle purchase tax expenditure gap will reach 400 billion yuan. Taking into account the cost of demolition, subsidy standards, raw materials and labor cost growth, the annual expenditure gap will further increase.

Third, there is a serious shortage of funds for maintenance. By the end of 2015, the total length of the National highway had reached 4.5 million kilometers, of which more than 3.5 million kilometers of highways built on a large scale since the 1990s have entered the peak period of maintenance. According to statistics, in recent years, the gap of funds for maintenance in China is about 50 % per year, which makes it difficult to arrange highways, some dangerous bridges and tunnels, accidents and disasters can not be repaired in time, and a large number of rural roads are out of maintenance. According to the standard for meeting basic status, the gap for non-toll highway funds during the 13th Five-Year Plan period is 1.6 trillion yuan.

1.3.3 Declining willingness to fund from social capital

First, the economic benefits of new highways are poor. Due to the fact that there are fewer and fewer good lines, especially in the western region, the newly built expressway has small traffic flow and high costs, and the pricing mechanism lacks flexibility. Most highway cash flows are difficult to cover operating costs, and benefits are generally poor. The period of funding recovery is long. This has led to a decline in the willingness to fund from social capitals.

Second, the toll highway is not yet sTable. The policy of free passage for major holidays, the green channel policy, and the other relief policies have to some extent affected the enthusiasm of social capitals. At the same time, the revision of the "Toll Highway Administration Regulations" is still under way. The issue of the toll time, support policies and toll standards for toll highways has not yet been clarified, and there is a lack of sTable expectations for social capitals.

Third, the PPPs is not smooth. There are still inconsistencies in the PPPs promulgated by the Ministry of Finance, and Ministry of Development and Reform, which to some extent affect the enthusiasm of social capitals funding highways. For some of the highways that have been implemented, due to changes in leadership and in land use planning, the implementation difficulties have increased the funding risk of social capitals, and the willingness of social capitals funding highways has also declined.

1.3.4 Financing channels to be expanded

In the past 30 years, the main channels of highways financing have mainly relied on the budget and bank credit. Among them, the budget has mainly relied on Central vehicle purchase tax, local facilities are insufficient, and some regions rely excessively on platforms to finance, and some highways have also used loans as capital, and debt risk continues to accumulate. According to the statistics of the Ministry of Finance, by the end of 2014, the government debt balance of highways had reached 4.2 trillion yuan, and some highway debts have not yet been included in the scope of government debt. There is an urgent need to broaden financing channels, especially for equity financing, use market mechanisms to increase liquidity of existing assets, reduce asset-liability ratios and control debt risk.

2. Requirement be faced with the highway funding and financing system

General Secretary Xi Jin-ping pointed out that the 13th Five-Year Plan is a golden period for highways. The highways must be rapidly promoted, and play a greater role in the great renewal of china. This important judgment of the General Secretary is the scientific positioning of the stage of highways, a profound grasp of the task of highways, and a clear request for further improving the highway funding and financing system.

2.1 To Implement the reforms of National funding and financing system

Since the 18th National Congress, the state has continued to advance the reform of the financing system. In 2016, the State Council of the CPC Central Committee issued the Opinions on Deepening the Reform of the Funding and Financing System, which clearly stated that the boundary between the government and the market should be clearly defined, and the government's funding and financing system should be improved, to give full play to the role of market mechanisms. To improve the funding system and give full play to the guiding role of budget funds. To further clarify the scope of budget funds, optimize the way in which budget funds is arranged, standardize budget funds, strengthen the post-supervision of budget funds, and encourage government and social capitals cooperation. To make great efforts to develop direct financing, give full play to the active role of financial institutions, improve the mechanisms of insurance funds and other institutional funds for highways, and speed up a more open funding and financing system. To make innovations in management, strengthen guidance on planning, and improve the regulatory and binding mechanism.

To implement the requirements of the Central Committee, it is necessary to further improve the

highway funding and financing system, further play the decisive role of the market in the allocation of resources, better play the role of the government, and promote the sustained, and stable improvement of highways.

2.2 To promote Integrated Transport

Since the Eighteenth National Congress of the Party, General Secretary Xi has made important comments on the development of comprehensive transportation, and has made it clear that efforts should be made to build a modern transportation network system and balance various modes of transportation. As well as accelerating the formation of a safe, convenient, efficient, green, economical comprehensive transportation system and a series of new ideas and requirements. From the perspective of the 13th Five-Year Plan, the building of a moderately prosperous society in all respects, the in-depth implementation of the "three major strategies" of china, and the promotion of a new type of urbanization have all brought about major opportunities for accelerating transportation, rapid networking and the construction of an integrated transportation system. At the same time, there are still many weak links in the transportation infrastructure in the central and western regions, especially in the areas of the poor and the old, and there are still problems of poor connectivity among various modes of transportation.

To judge comprehensively, the 13th Five-Year Plan is still an important period for transportation infrastructure. It is also a crucial period for accelerating the formation of networks, optimizing structures. There is an urgent need to improve the highway financing system, raise more funds for highways, increase funds in the key weak links of highway network, and fill in the gaps as soon as possible.

2.3 To promote Supply-Side Structural Reform of Transport

The outstanding contradictions facing China's economic performance are rooted in major structural imbalances. Promoting supply-side structural reforms is a good recipe for adjusting the economic structure and transforming the economic model. The 13th Five-Year Plan is a crucial period for promoting supply-side structural reform in the transport. The focus is to accurately grasp the new requirements under the new normal of the economy and improve the efficiency and quality of transport supply.

In terms of improving supply efficiency, It is necessary to speed up channels and hubs, improve the operation efficiency of transportation infrastructure, improve the logistics operation efficiency and passenger transportation efficiency. In terms of improving the quality of supply, efforts should be made to develop advanced, safe and green transportation equipment, improve high-quality, diversified and personalized passenger transportation services, and encourage and support enterprises of all types to provide diversified and all-round travel information services.

To achieve the above goals, It is necessary to further improve the highway funding and financing system, increase guidance, shift resource allocation to key areas of industrial transformation and upgrading, further innovate financing mechanisms, clarify the relationship between the government and the market, and increase budget funds. It is also necessary to stimulate social capitals and mobilize more resources to increase funds in key areas.

3. Ideas for innovation of highway financing system

3.1 Guidance

To fully implement the spirit of the Eighth and Eighteenth Three, Fourth, Fifth and Sixth Plenary Sessions of the CPC, follow the guidance of Deng Xiaoping Theory, the important thought of the Three Represents, and the Scientific Outlook on Development, and thoroughly study and implement the important principles of the speech series of General Secretary Xi Jin-ping. In accordance with the overall layout of the "five-in-one" and the "four comprehensive" strategies, to firmly establish and implement the new philosophy of innovation, coordination, green, open and shared development, and press ahead with supply-side structural reform. To give full play to the decisive

role of the market in allocating resources and better play the role of the government, to improve the highway funding and financing system that is "government-led, hierarchical, responsible, diversified, and standardized and efficient", and promote the sustainable of China's highways.

3.2 Principles

Upholding government leadership. To scientifically define the scope of budget funds, stabilize the special tax, treat all types of financing entities equally, and make full use of market-based financing to raise highway funds.

Sticking to classification. To open up channels for financing, broaden sources of financing, and adopting appropriate financing methods according to the highways income.

Persisting in performance orientation. To optimize the funding structure, coordinate resources, reduce financing costs, control debt risk, and improve the use of funds.

4. Approaches for Innovation of Highway Financing System

4.1 To improve the government funding system

First, to clarify the scope of budget funds. Budget funds are used in highways where the market can not effectively allocate resources. Non-operational highways are the main ones, and in principle they do not fund operational highways. To clearly define the areas of Central and local budget funds and give full play to the two initiatives. The central mainly funds in national highways, national defense highways, boundary river bridges, and comprehensive passenger transport hubs. Locals mainly fund in provincial highways and rural roads. During specific periods, the central will increase its funds for rural roads to help the poor. To establish a mechanism for regularly evaluating and adjusting the scope of budget funds in highways, continuously optimize the direction and structure of funds, and improve the efficiency of funds.

Second, to optimize the way of budget funds. Budget funds are arranged according to highways and mainly based on direct funding. For operational highways that really need support, capital injection and subsidies are used to them.

Third, to standardize the management of budget funds. To draw up a three-year rolling funds plan for highways, define major highways during the planning period, link them with the medium-term fiscal plan, and arrange and standardize the use of various types of highway funds. According to the three-year rolling funds plan, to formulate the annual plan of funds and rationalize the arrangement of funds. The establishment of a highways bank, in principle, does not arrange for funds in highways that are not in storage.

Fourth, to stabilize the highway special fund. To learn from international experience, continue to stabilize funds such as vehicle purchase tax and fuel consumption tax, and actively promote the use of legislation to stabilize vehicle purchase tax. To give full play to the role of special funds in guiding local funds and social capitals.

Fifth, to implement the government bond. Coordinate the Finance Sector to include highways that have no income into the scope of local governments general bonds. A special bond system for local government toll highways has been established, whereby the revenue from tolls and special revenue, which correspond to and are included in the budgets, shall be used as the source of repayment, and the "borrowing, use and repayment" of bonds shall be fully incorporated into the budgets.

It is specially used for the government toll highways, giving priority to the National Highways highways, and it is not allowed to be used for the non-toll highways, which focus on the three major strategic plans of the Belt and Road Initiative, Beijing-Tianjin-Hebei cooperative and the Yangtze River Economic Belt. It shall not be used for recurrent expenditure or expenditure on maintenance.

Sixth, to make fully use of special funds. To make fully use of the financial discount policy for special funds, establish a pool of highways, and focus on highways with certain income through equity funding. To optimize the exit mechanism for special funds, formulate debt-service plans, and guard against fund risks.

Seventh, to study the Highway Development Fund. In combination with the task of highways, to set up the Highway Development Fund based on existing income such as vehicle purchase tax and oil consumption tax.

4.2 To innovate market financing mechanisms

First, to study the Highway Industry Fund. To set up the Highway Industry Fund by means of fiscal injection and equity funding, and encourage financial institutions, as well as National Social Security funds and insurance funds, to participate effectively through subscription of fund shares after approval on the premise that they are in compliance with the law and risk control. Some of the funds are drawn from the vehicle purchase tax to attract social capitals to participate in the establishment of the Highway Industry Fund.

Second, to promote the application of PPPs. To actively guide social capitals to participate in highways such as toll highways, hub stations, and avionics hubs through the rules on earnings contracts, such as franchise rights, reasonable pricing, and financial subsidies. According to the law and contract, the highway risks should be reasonably distributed between the government and social capitals. To promptly issue confirmation letters for capital arrangements for PPP highways that comply with the policy on the use of vehicle purchase tax funds, clarify policies, optimize management procedures, and guide local governments in making project reserves and reporting. To speed up the implementation of the early stages of highways and the landing of highways. To speed up the revision of the Toll Road Administration Regulations to create a environment for the use of the PPPs for toll highways, and support PPP entities to raise funds through corporate bonds, and asset securitization.

Third, to promote government procurement of services. In accordance with the concept of "public welfares and market-oriented operations", to promote the "integration of building and maintaining" model, use the government's mode of purchasing services, create new models for financing the construction and maintenance of highways, and support local governments in packaging highways and land projects along the routes. To improve the earning power, to set up subsidies to ensure that social capital receives a reasonable return on funding. To encourage the transfer of highway naming rights, advertising rights, and the development of related resources to raise funds for the highways.

4.3 To strengthen debt risk control

First, to establish a coordination mechanism between planning and budgeting. To do our best to match the financial resources with the needs and adapt the budgets to the planning. To do a good job in assessing the capacity of capitals in planning, define the channels for capitals, scientifically measure the scale of financing, and establish a closed feedback mechanism for capitals and plans to prevent excessive borrowing.

Second, to optimize the structure of debt stock. To actively seek financial and local government support to identify contingent debts in the highway sector as government debts, implement repayment sources, and reduce the cost of debt repayment. To strengthen communication and coordination with banks to adjust short-term or maturing debt to medium-and long-term debt.

Third, to promote the transformation of financing platforms. In accordance with the reform of the classification of state-owned enterprises, the central shall guide the transformation of various government financing platforms for highways, encourage the merger and reorganization of various platforms, improve financing capabilities, explore the use of the National debt-to-equity policy, ease the debt pressure on financing platforms.

Fourth, to standardize debt borrowing. To implement the Budget Law, strengthen the administration of debt limits and budget management, and standardize debt obligations. To guard against the government debt risk brought about by new financing methods such as PPPs, funds, and asset securitization. To assess the risk of debt stock and study and formulate emergency plans and early warning mechanisms for government debt risk in the Highway Sector.

4.4 To regulate the management of funds

First, to strengthen the supervision of highway funding. To strengthen the management of highways, and strictly enforce fund estimates, standards, and time limits. To issue financing plans in strict accordance with the schedule of highways, strengthen the overall management of highways and funds, prevent the formation of fund deposits, and ensure the budget funds can achieve timely benefits. To strict budget estimates implementation and cost control, sound budget estimates examination and approval, adjustment and other management systems. To improve the regulatory mechanism for highways funding, strengthen the inspection system for major highways, improve the acceptance system for completion, establish a post-evaluation system, and improve the accountability system for government funding.

Second, to implementate the whole budget management. All kinds of budget funds and government debt funds used for highways shall be classified into budgetary management. To actively pursue a comprehensive budget management model for the sector and gradually achieve an annual budget arrangement covering all aspects of highways, including construction, management, maintenance, operation, debt service and transport services, so as to fully reflect the economic management activities of the highway sector. To increased efficiency of intensive use of funds.

Third, to strengthen the budget performance management. To further improve the budget performance system, and gradually establish the overall performance mechanism for setting performance goals in advance, tracking performance in the course of events, and evaluating performance afterwards. The results of the performance evaluation are taken as the main basis for preparing a three-year rolling budget, adjusting the fund expenditure structure, improving the fund policy, and granting highway subsidies.

Fourth, to improve the internal control. To further improve the system design, strengthen the foundation of the system, and combine the internal business process to speed up the establishment of an internal control system that covers all aspects of fund raising, budgeting, budget implementation, asset management, and audit supervision. Under the premise of ensuring safety and quality, broaden sources of income and reduce expenditure, strengthen the management of all stages of design, construction, and maintenance, and establish a cost control system for the entire highway.

To carry out follow-up audits of key highways, and strengthen the auditing of key links such as land requisition and demolition, project tendering, design changes, measurement payments, and final accounts for completion, so as to prevent loopholes, correct waste, and promote the safe and efficient use of funds.

Fifth, to control the risk of government debt. To actively cooperate with the Financial Sector and establish a sound mechanism for early warning and emergency handling of debt risks. In the event of debt repayment difficulties, to raise funds through multiple channels to repay debts by controlling the size of highways, disposing of existing assets and obtaining funds. To establish a mechanism to guarantee the payment of debts for highways, dispatch funds in a scientific manner, use government bonds to speed up the repayment of outstanding debts, reduce debt interest payments, and keep to the bottom line of avoiding regional and systemic risks.

References

- [1] Opinions of the State Council on Strengthening Local Government Debt Management.
- [2] Decision of the State Council on Deepening the Reform of the Budget Management System.
- [3] Guidance of the State Council on Encouraging Social Capital in Funding and Financing Mechanism for Innovative Key Areas.
- [4] Opinions of the CPC Central Committee and the State Council on Deepening the Reform of the Funding and Financing System.
- [5] Guidance of the State Council on Promoting the Reform of the Division of Fiscal Powers and Expenditure Responsibilities between the Central and Local Authorities.
- [6] Highway Law in 1998. Regulations on the Administration of toll roads in 2004. Regulations on the Transfer of Rights and Interests on toll roads in 2008.