China Railways
– Development, Financing and Challenges

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1. Current Situation of China Railways
2. Development Plan of China Railways
3. Reform of Railways investment and financing system
I. Current Situation of China Railways
China Railway--the busiest railway with the most efficient in the World

- Passenger: 606.2 billion p/km
- Traffic density: 35.51 million converted tk/km
- Freight (t/k): 2.072 trillion

Route length: 75,000 km
Year: 1949, 2005

[Map of China showing railway network]
2005年

- Transport density is 35.51 million converted t-km/km, ranking the first in the world
- Converted traffic volume is 2692 billion t-km, ranking the first in the world
- Route length is 75438 km, ranking the third in the world
By 2005, the freight turnover: 2,072.6 billion ton-km, the average travel mileage: 770.5 km; the passenger turnover: 606 billion person-km, the average travel mileage: 524.7 km. 
Market Share

**Passenger Traffic 34.7%**
- Railway: 34.7%
- Road: 55.7%
- Aviation: 9.2%
- Waterway: 0.46%

**Freight Traffic 54.7%**
- Road: 22.5%
- Aviation: 0.2%
- Pipeline: 2.3%
- Waterway: 20.3%
- Railway: 54.7%
From 1990-2005:

- Railway network is growth by 1100 km annually
- Capital Investment on railway is increasing year by year
Large-scale Railway Construction Commences

*During the Tenth Five-year Plan Period*

- Mid and Long-term Railway Network Program begins to implement
- Construction of PDL commences in an all round way
- 106 new railway projects started
- Investment on capital construction hits 308.83 billion

- New line: 6500km
- Double-track line: 25000km
- Electrified line: 20000km
Some progress made in the system reform

---- Separation of railway industry, education, construction sectors from Ministry of Railway. The employee from 3.4 million to 2.2 million.

---- The operation management system from four layers to three layers. Eliminate 40 sub-bureaus

---- Restructuring the layout of the freight stations and depots, the number from 1500 to 800

---- investment and financing reform
Problems

Shortage of railway capacity has become the bottleneck for national economic development:

---- Serious shortage on major trunk lines

---- Seasonal demand cause a serious passenger transport problem

---- Only about 35% of satisfaction ratio for freight transport demand coal transport

---- Technology and equipments need to be catch up
II. Development Plan of China Railways
1. Mid and Long-term Railway Network Plan

In Jan. 2004, the State Council approved Mid and Long-term Railway Network Plan, as the blueprint for development of China Railways by 2020.

- Railway route length hits 100,000km
- Realize separation of freight and passenger transport operation on busy trunk lines
- Double-track and electrified percentage hit 50%
- Transport capacity meets demand of national economy growth and social development
- Main technological equipment achieves or approaches international advanced level

- Form up nation-wide rapid passenger transport network and freight transport network with great capacity.
- Form up a framework of railway network in the West.
- Further improve the structure of railway network in Middle and East China.
Tasks 1. Construction of Fast Passenger Rail Network

- By 2020, more than 10,000 km of PDL of “four vertical and four horizontal corridors” will be built.
- Through constructing PDL and promoting speed acceleration on existing lines, railway fast passenger traffic network is built up.
- Trains departing in the evening – arriving in morning on about 2000 km lines and trains of one-day arrival on about 4000 km lines are to be realized.
By 2020, intercity passenger railway lines of 2000 km are to be constructed.
Task 2. Completion of top ten coal bases transport corridors

In 2020, top ten coal transport basic corridors will be completed with outbound transport capacity of 2 billion tons.

in combination with

---- construction of passenger dedicated railway lines

---- capacity expansion of existing lines,
In 2020,

- New railway of 16 thousand km will be constructed
- Framework of western railway network will be formed up.
- Western railway network will reach 40,000 km.
- Enhancement and improvement of eastern and middle railway network
Task 4. Construction of Container Traffic Corridors

- Construct 18 container center stations and 40 special handling stations.
- Complete the upgrades on double-deck container transport corridor.
- Operate double-deck container trains with operation mileage of 16,000km.
The development of China Railway in the Eleventh Five-year Plan period (2006-2010)
1. “Eleventh Five-year” Railway development Target

The national government has put railway development as the first priority in the transportation system because of its advantage of environment friendly and energy saving.

Clean, Resource Saving(Energy,Land), Safe, Affordable

According to the Eleventh Five-year development plan for China from 2006-2010 which approved by the National People’s Congress in March 14, 2006.

By 2010,

17000 km of railway will be built, including

7000 km of Dedicated Passenger Lines.

Double track and electrification covering 45% of the whole network.
2. Construction of Passenger Traffic Network

During “Eleventh Five-year Plan Period”, rapid passenger traffic network is preliminary formed up. The rapid passenger traffic network is built up with Beijing, Shanghai, Guangzhou and Wuhan as centers.

*The PDLs include:* Beijing-Shanghai, Beijing-Guangzhou-Shenzhen, Harbin-Dalian, Zhengzhou-Xian, Shijiazhuang-Taiyuan.

*Rapid passenger traffic corridors include:* Chengdu-Wuhan-Shanghai, Hangzhou-Ningbo-Xiamen-Shenzhen

*Intercity railway lines include:* Beijing-Tianjin, Shanghai-Nanjing, Guangzhou-Zhuhai, Nanjing-Hangzhou, Nanjing-Anqing, Jiujiang-Nanchang,

Primarily form up the passenger traffic framework of “four north-south corridors and four east-west corridors”
3. Construction of Coal Transport Corridors

Combine the construction of PDLs and rehabilitation on existing lines, form up the coal transport system with large transport capacity:

- Transport capacity of Datong-Qinhuangdao line reaches 0.4 billion tons
- Transport capacity of Shuozhou-Huanghuagang railway reaches 0.2 billion tons
- Construct the big transport corridor of Beijing-Baotou and Baotou-Lanzhou as well as Baotou-Xi’an corridor
4. Improve the Railway Network Construction in Middle of Eastern Area and Western Area

- Greatly expand the western railway network
  - Strengthen the connected corridor between middle of eastern area and western area
  - Build international corridors at the borders in southwest and northwest.
  - By 2010, total of western railway network will reach 34000 km.

- Optimize and improve the network in middle of eastern area
  - Speed up the construction of PDL, intercity railway and trunk line network.
  - Speed up electrification on existing lines
5. Construction of Intermodal Corridor

- Expedite the construction of container transport network
- Build 18 container logistics centers in Beijing, Shanghai and Guangzhou
- Actively promote the construction of corridors for double-deck container transportation
- Develop inter-model transport
III. Reform on Railway Investment and Financing System
To accomplish the Middle and Long Term Railway Network Plan, it requires investment over RMB 2 trillion (about $240 billion).

To meet the goal, the government is making efforts to promote the reform of the investment and financing system for the railway.
• Before 1980, all investment was the government budget.

• As early as 1980’s China Railway had started to change investment and financing system by setting joint venture railways, imposing construction fund, utilizing foreign capitals, and issuing bonds etc, to collect funds and capitals from different sources.

• Since later 1980’s, MOR started to jointly invest with provincial governments or other enterprises in some railway projects. By 2004, 26 railway joint ventures, 8500 km.

• In the beginning of 1990’s the government started to impose the Railway Construction Fund on railway freight. Now it is RMB 3.3 cents (about US 0.4 cents) per ton-km. It is about half of the tariff. The annual revenue is about RMB 40 billion.
The structure of railway financing in 2004

- Railway Construct. Fund: 55.7%
- Foreign Capital: 1.7%
- Domestic Loan: 12.6%
- Budget: 13.6%
- Local government & enterprises: 5%
- Railway enterprises: 1.6%
- Bond: 9.6%
Based on Directive Catalog of Foreign Investment Industry revised by the Government 2004, there has been no restriction on the investment areas of railway industry.

In Feb. 2005, State Council stated that non-public capital can enter monopoly industries. Market competition mechanism should be further introduced in areas of power, telecommunication, rail, civil aviation, oil, etc.
2. Basic Principles for Railway Financing and Investment Reform

- **Led by the Government**: Railway is infrastructure with huge amounts of investment, longer pay back period, public obligation and tariff control. The public sector needs to continue to play its leading role.

- **Diversified investment**: Initiatives from all sides should be brought into full play to form diversified investment channels.

- **Market-based Operation**: Based on laws and regulations, joint venture railway companies shall be established and responsible for construction and operation.
3. Major practices of railway financing and investment

(1) Stabilize and expand existing capital resources:

- railway construction fund.
- treasury bonds
- bank loans and foreign capital utilization
(2) Enhance cooperation with local government in the aspect of railway construction:

- Since year 2004, MOR has negotiated and signed strategic cooperation agreements with 31 provinces. The number of total railway projects amounts to 158.

- For many projects, local governments take in shares with resettlement cost or provide budget to participate in railway construction, and offer favorable policies in some aspects, such as taxes.
(3) attract strategic investors

- select passenger dedicated railway lines, container terminals and other projects with good investment benefits to attract investment.

- In 2005, there were 20 joint ventures set up and committed RMB 40 billion yuan of capital investment. There are local governmental invest agencies and state or private enterprises. MOR set the China Railway Construction and Investment Company as its agent for MOR investment.
(4) With restructuring existing railway assets to attract new investors

- Restructuring existing railway assets with a certain scale and strong profitability, to raise funds through stock share transferring, issuing stocks in the capital market.

---- Datong –Qinghuangdao dedicated freight railway
4. Create good environment for investment.

- working on to set up the sound legal framework, to provide a more favorable environment for investors.

- In July 2005, MOR has promulgated the Decision On Encouraging Private Sectors to be Involved in the Railway Construction and Operation.

- laws and economic regulations on the aspect of transport capacity sharing, revenue clearance, market access, transport service and safety monitoring should be established or improved.
Working with other government agencies for

- Lower market barriers
- Policies on financing (interest, bonds)
- Policies on tariff
- Policies on taxation
- Enforce economic regulation
Major challenges are facing

---- timing, gap between railway development and economic development.

  the duration of preparation and construction, can’t wait, highway, more environment pressure, land issues

---- financing

  investment on railway projects from 60 billion in 2004 to 89 billion in 2005, 165 billion in 2006. Find new ways to financing

---- technology

  high speed railways, EMU, Integration of the systems

---- Institutional

  new legal framework, regulations, conception
Thank you