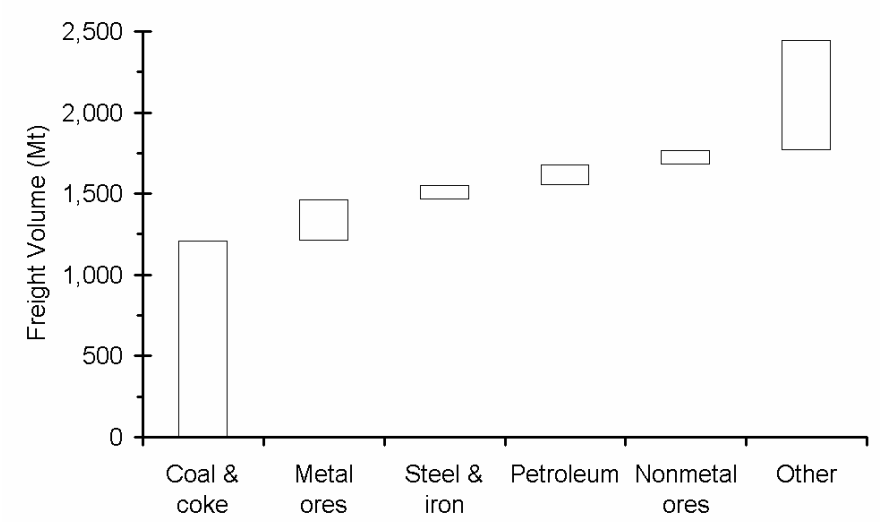
Exhibit 4.8: Composition of rail freight volumes



Source: China Statistical Year Book (2007).

There is a severe imbalance between China's industrial centres and its natural resources

The need to transport coal for long distances illustrates the severe imbalance between China's industrial centres and its natural resources. Similarly, the economic differences between inland and coastal regions, as well as the country's vast borders, add further complications that reduce the efficiency of the national railway system.

Rail wagons are often shipped empty into the inner provinces for scarce resources to be hauled back to the coast

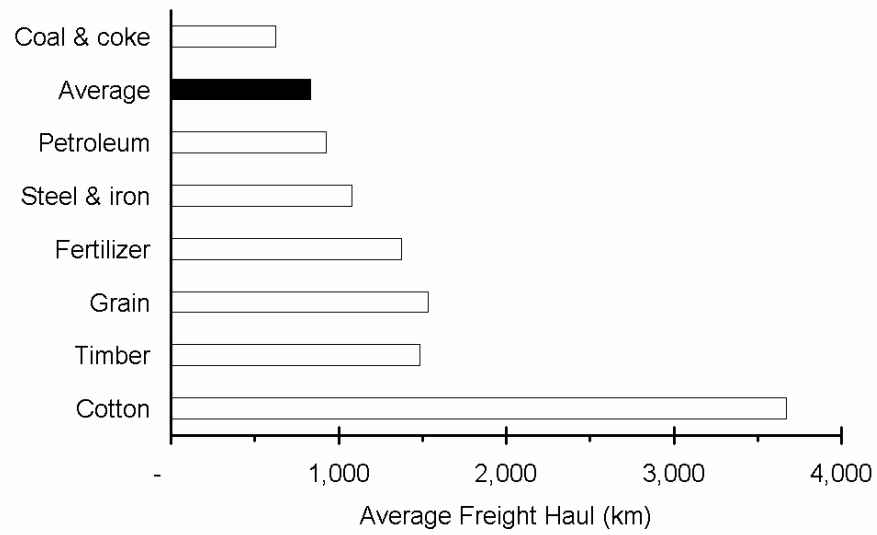
Trade and industrial imbalances within China are such that demand is high in the central cities for resources and products from the hinterland, while the consumption in these hinterland regions is much lower. The result is that rail wagons are often shipped empty into the inner provinces for scarce resources to be hauled back to the coast. This imbalance makes China's transport costly and inefficient. Economic reforms that have accelerated the development of coastal cities at the expense of inland areas have accentuated the economic imbalance.

China's average coal haul is 625 km; in the US, it is 1,300 km

Although coal is the largest-volume cargo transported on China's railway system, its average haul of 625 km is relatively short, below the weighted average of 832 km for all cargoes (Exhibit 4.9)[4]. In the US, the long-haul rail freight distance averages 1,300 km.

[4] Coal, 601 km and coke, 931 km.

Exhibit 4.9: Average rail freight haul



Source: China Statistical Year Book (2007).

Large seasonal variations exacerbate network congestion

The average haul distances mask significant seasonal variations which exacerbate network congestion and affect the delivery of other commodities that are often of greater political or economic importance. During the crop-planting season in April and May, priority is given to the carriage of grain and fertiliser, but for the rest of the year the system hauls very little grain and fertiliser. Similarly, during the cotton harvest from September to December, priority is given to the carriage of cotton. At the start and end of this harvest, the railways allocate additional passenger capacity to handle the estimated one million temporary workers needed to bring in the crop. Xinjiang, in China's northwest, is the country's largest cotton producer and its remoteness from major population and industrial centres creates a transport problem characteristic of China's industrial imbalance. The majority of textile manufacturers are located in coastal centres, so cotton harvested in Xinjiang needs to be transported more than 3,500 km to mills in Shandong and Shanghai.

For passengers, there are four peak periods, involving 152 days per year

For passengers, there are four peak periods, involving around 152 days per year. These cover the lunar New Year, the April/May public holiday, and the summer and autumn vacation periods. Huge numbers of people travel during these periods, especially migrant workers returning to their home villages that are far distant from the main population centres.

The lunar New Year holiday period sees the largest migration on earth, with 130 million people returning home to be with their families during the festive season

The Chinese New Year holiday period has been described as involving the largest migration on earth, with 130 million people (more than the population of Brazil) returning home to be with their families during the festive season. Most of the journeys are by rail and during the two weeks leading up to

the 2008 New Year the railway network handled more than 4.5 million people each day. To cope with the additional load, the MOR allocated an extra 779 trains.

Railway administration

The National Development and Reform Commission formulates China's Five Year development plans

At the national level, the National Development and Reform Commission (NDRC) formulates China's Five Year development plans, and after consultation with the administrative units responsible for the various transport sectors, establishes priorities and targets. The MOR is responsible for the national railway system and the Ministry of Transport (MOT) is responsible for national highways, inland waterways, coastal shipping and major ports, and air transport and airports.

The NDRC and MOF are important in the administration of China's railway network

The NDRC collaborates with the MOR on tariff-setting and has the authority to approve the construction of new railway lines that are shorter than 300 km. Lines longer than 300 km require the approval of the State Council. The Ministry of Finance (MOF) also has a hand in China's railway administration as it supervises the collection and use of the railway construction fund, an additional levy paid by shippers of freight.

The MOR operates under China's 1990 Railway Law

The MOR operates under China's 1990 Railway Law, which provides a framework for the regulation and operation of railways, as well as for operational safety, railway construction, service quality and legal liability. The law also specifies the respective rights and obligations of the government, MOR, local governments, other railway operators, shippers and railway users.

The MOR shares some administrative responsibility with local and joint-venture railways

The MOR shares some administrative responsibility with local and joint-venture railways. The joint-venture and local railways consist of regional lines within provincial boundaries constructed under the sponsorship of local governments, often with the assistance of the MOR. The joint-venture and local railways serve local needs and provide interconnection to the national railway network. Of China's 78,000-km railway network, 65,320 km is owned and operated by the MOR, 8,940 km is owned by joint-venture railways and 4,740 km is controlled by local authorities.

Joint-venture railways have substantial managerial and financial autonomy

Joint-venture railways have substantial managerial and financial autonomy. This includes the freedom to set tariffs, which are much higher than those of the national network.