The Heart of the Problem: Trucking in China’s Logistics Sector

XIONG JUN  
Renmin University

DAVID BENSMAN  
Rutgers University

Introduction

While China has many large, modern and efficient ports—led by those of Shanghai and Shenzen, the third and fourth largest ports in the world—its logistics system as a whole ranks only 27th, according to the most recent World Bank analysis. China spends twice as large a share of its gross domestic product on logistics than does the United States, which is 14th in the World Bank index. In February 2009, China’s State Council executive meeting acknowledged the problem when it identified the construction of logistics infrastructure and the merger and reorganization of logistics enterprises as key development priorities. China’s chaotic trucking industry is at the heart of the problem.

The Common Trucking Sector

When China opened its economy to global trade after 1978, it disbanded the state-owned trucking companies. Former employees were laid off, many with inadequate retirement pensions. Millions of farmers entered the freight transport industry, hoping to make enough money to buy a home in the countryside. They bought used trucks and entered the newly deregulated industry as owner operators, without protection from labor or employment law. By 2000, there were 4.4 million small-sized and midsized trucks, accounting for 98 percent of the cargo vehicles in China. More than two-thirds of these trucks are rated to carry 4- to 8-ton loads, but overloading is common. Most of them (85 percent) run on petroleum. Furthermore, in 2001, there were nearly four million transport tractors, which are very small trucks, involved in road transport (He 2001, Huang 2002). Observers characterize this industry as “small, scattered, chaotic and poor” (He 2001, Wang and Chen 2006, Zhang 2007, “China’s Logistics Twice as High as in the United States” 2009). Overloading is a serious issue.

Most drivers of common trucks are farmers who can purchase only simple, small trucks. Every morning they appear at regional trucking centers, where they walk past brokers who write contract proposals on blackboards. When they find an offer that appears favorable, they sign with the broker, then bring their truck in to load. They drive from city to city, often going months at a time before visiting their family in their home village. While they are transporting a load, they bear the costs of fuel, truck maintenance, highway tolls, traffic fines, food, lodging, and so on. In order to avoid having to return from a delivery with an empty truck, drivers will often drop their rates so low that no one can make a profit from a trip unless they stay on the

Author’s address: 1218 Raritan Avenue, Apartment 11A, Highland Park, NJ 08904
road nearly dawn to dawn. Many drivers can’t afford to maintain their vehicles properly. Information systems and management skills in this sector are like “castles in the air.”

Many studies of the living conditions of common truck drivers document severe problems, including illness and disease, unsafe conditions, poor quality of life, and lack of health insurance. Many of the problems are related to bad working conditions. “Sometimes we were blocked in the road hungry for more than a dozen hours. Even an iron man can’t bear it,” one driver complained (Liu 2007). When congestion on the road is particularly bad, drivers may have to stay in their trucks for days at a time. They will sleep curled up in their truck seat, and eat instant noodles and pocket-starch chicken sausages. They may not even have warm water in cold winter (Liu 2007). When traffic is moving, they drive for long hours every day in order to reach their destination on time. One large survey found that more than 40 percent of the drivers regularly drive 9 to 12 hours at a stretch (The Blue Book of China Truck Driver Living Status 2007). Drivers working in two-man teams typically spend 20 hours a day on the road. Sometimes they don’t even have enough time to go to the restroom because they don’t want to “waste time.” This can lead to prostatitis and urinary calculi (Liu 2007). One large survey found that 39.1 percent of drivers reported at least one occupational disease. In addition, two-thirds reported suffering from stomach illnesses, and more than a third from cervical spondylosis (The Blue Book of China Truck Driver Living Status 2007).

In recent years, robbery and truck hijacking have been commonplace. Some criminals rob drivers when they are sleeping on the side of the road—almost half of the drivers sleep in their trucks (The Blue Book of China Truck Driver Living Status 2007). When drivers are injured during robberies, they bear the consequences by themselves, because they don’t have medical insurance or accident insurance, (The Blue Book of China Truck Driver Living Status 2007, Liu 2007).

This huge group, numbering 13 million drivers, is not respected or understood by company managers or the driving public. Predatory policemen, criminals posing as policemen, and government officials impose heavy fines for minor or imagined misdeeds. More than a third report that their sleep quality is poor. Seventy percent smoke, and 50 percent drink heavily. Furthermore, the drivers’ family life suffers; 80 percent of truckers in three provinces reported being away from home 80 percent of the time. Divorce is common (The Blue Book of China Truck Driver Living Status 2007). Finally, drivers suffer high rates of sexually transmitted diseases, including syphilis, and HIV/AIDS (Wang et al. 2002, Zhang and Yushan 2005, He et al. 2006, Lu et al. 2006, Feng 2008).

The Road Container Trucking Sector

Common trucking’s hypercompetitive marketplace forces truckers to keep rates so low that common trucks are able to compete with container trucking companies for deliveries from factory or warehouse to port. This competitive pressure from small, old, inefficient common trucks has prevented the development of a modern, technologically advanced container trucking industry.

The trading companies that handle the shippers’ compliance with government regulation of customs, quarantine and inspection, foreign exchange management, and inland revenue also arrange for goods to be delivered to the ports. They contract with tens of thousands of freight forwarding agencies, which do the actual bargaining and scheduling with the truckers.

These freight forwarders don’t own container trucks. They have three to five employees who work out of one small, poor room with several business phones. Their principals run around the market all day long seeking orders. When they get an order, they sell it to the container transport company who bids the lowest price. This kind of business is called “sell orders” or “transfer orders.” Basically, these small and flexible freight forwarding agencies have control of the container market, dictating terms to trucking companies large and small. Even the big state-owned container transportation companies or joint-venture companies have a hard time competing with the small and flexible freight forwarding agencies for orders. They usually only get orders to transport heavy, dangerous and low-profit containers.

Competition in the container freight transport industry is so intense that the companies frequently make lowball bids. The only way to make profits on these orders is to overload trucks, use fake licenses, or lease vehicles owned by truck drivers working as independent contractors.
The number of container trucks with fake licenses is nearly a third that of legal container trucks. People register their container trucks in cities where registration fees and management fees are low, then run their business outside the region. This is illegal, but it is a common way to reduce operating costs. Some drivers use fake license or double sets of license to avoid registration and management fees. These illegal methods can markedly reduce costs, which makes it possible to keep bids low.

Companies also lease trucks owned by independent contractors because in this way they needn’t pay for the trucks’ purchase price and maintenance fees. They also needn’t pay the drivers when there is no business.

This intense, destructive competition has limited container truckers’ share of the entire road freight transport market. In 2005, there were 3,472 road container transport enterprises, accounting for 0.1 percent of the total number of national freight companies. There were only 58,700 container trucks, accounting for 0.97 percent of the nation’s total trucking fleet. Container trucks are mainly concentrated in the coastal provinces and cities, with the average transport distance only 63 kilometers (39.1 miles) and the average driving speed only 60 kilometers (37.5 miles) an hour (Chen 2007).

Most of the container trucks are not owned by the container companies; they are owned by owner operators who are “linked” to container companies. For example, in Ningbo, there are 50 companies whose registry includes more than 80 container trucks in Ningbo city, but most of these container trucks are owned by independent contractors. There are only 20 companies in Ningbo that own more than 20 container trucks of their own (Dai and He 2008). Container trucks owned by independent contractors account for about 80 percent of the total in Ningbo city (Zheng 2005).

Container transport faces not only vicious competition from illegal vehicles, but also high operating costs for insurance, terminal gate fees, road and bridge tolls, fines, and fuel. Highway and bridge tolls are important revenue sources for local governments. Road tolls alone accounted for more than half the operating costs of the operating division of Cosco, China’s largest logistics company. Obtaining fuel in the face of chronic shortages is an additional problem (Gen 2008).

In the face of vicious competition and high operating costs, many companies routinely accept orders for containers that weigh more than their trucks are supposed to handle. One study showed that more than 10 percent of containers hauled by truck exceed the legal weight limit. Shippers overload the containers as a way of reducing their freight costs. Trucking companies accept the overloaded containers because they need the revenue (Wang 2008).

Most container truck drivers are provisionally employed farmer drivers or the linked independent drivers of the state-owned or collective transport companies. They transport a container for a one-time fee, and often return from the port to their container company with an empty container and then wait for the next order. Traffic jams, often caused by road accidents involving old, overloaded, and unsafe trucks, reduce drivers’ earnings, as does competition from “black” drivers who operate outside the law altogether. Just a few independent drivers who have private relations with shippers become wealthy. Most of the farmer drivers’ dreams of “driving to make a fortune” will not be realized.

Container movement at the port is affected by the market conditions of the common and road container industries. Chinese ports are large-scale business conglomerates specialized in the operation of ports and related business. They are descended from state-owned enterprises that carried out almost all import logistics functions, including ship loading, on-dock warehousing, local drayage, pilotage, and so on. They were incorporated at the beginning of the 21st century. Soon most were turned into shareholding limited companies whose shares trade on the Shanghai, Shenzhen, or Hong Kong stock exchange, with the Chinese local municipal government being the largest shareholder. With strong supports from local government, little competition, and a rapidly growing margin, they have been able to generate profits and attract investment from foreign ocean lines and shippers.

The port management companies are integrated operations, far more so than competing ports around the world. They not only operate terminals, they provide piloting services, warehousing, business information, and so on. Since they internalize profits from a variety of operations, rather than contract with countless partners, their profitability depends primarily on how fast they can move freight through the port. Once an empty ocean carrier enters a berth, the goal is to load the ocean carriers as quickly as possible. The ports rely on computer software to plan the distribution of freight in the hold, the operation of the cranes,
and the scheduling of container delivery from their near-port warehouses and container yards to the ships. Old, overloaded trucks would clog their lean logistics system.

Container trucks operating within these modern ports are owned by the ports themselves. The trucks are uniform and new; each has an onboard computer linked to the near-port warehouses, ships, and cranes’ computers, providing instructions as to where precisely to deliver the container for loading by the giant gantry cranes into the designated slot in the waiting ships’ holds.

The truck drivers at the port are migrants recruited from the countryside by the labor agencies to work as contract employees. They live in agency dormitories and travel to and from the docks in agency vans. A study At the Ningbo 2nd Container Division in 2005, before the new contract law went into effect, revealed that 252 truck drivers were among the 1,100 “diversified employment workers.” While their pay is very low—$250 per month at Port Ningbo—compared to people operating the same equipment in the United States and Europe, it is well above the income of Chinese farmers and higher than the average wage of factory operatives in China’s export factory zones.

According to a report of the Ningbo port authority, the reason that port companies use these temporary labor contract workers is that there are a large number of dirty, tiring, dangerous jobs at the port, creating a need for a huge pool of workers with strong physiques who are willing to bear hardships (Gu 2006). The second is that these temporary labor contract workers cost 19,000 RMB per capita per year to employ, which is only 27 percent of the cost of hiring formal fixed workers (Liu 2006).

The temporary labor contract workers come from labor service agencies, which sign labor service project contracts with the port operating companies and take responsibility for labor recruitment, administration, and training as well as housing and the purchase of health coverage. There are 17 labor service agencies providing labor services at Ningbo port. When they sign contracts with the port, they have to show a corporate code certificate. Few agencies have their own legal qualifications or possess sufficient registered capital. Most of them are individual contracting companies with only a little registered capital. In some cases, the registered capital of the labor agencies is just 100,000 RMB (almost $14,000).

The management systems of the labor agencies are not standardized. For example, the legal representative and all management in one company is performed by one part-time person. The agencies lack management regulations or financial controls. Since they are undercapitalized and have underdeveloped management systems, it is difficult for the labor agencies to guarantee that they can perform in accordance with the provisions of labor law to purchase adequate insurance coverage for the drivers. If an accident happens, the small labor agencies cannot provide enough money for the injured workers, and the health insurance department also will not provide them enough money. The consequence will be that the workers will have to carry the burden themselves (Liu 2006).

Although the port truckers play an important role in port operations, they are socially marginal. Public activities such as trade union and company group activities never take temporary labor contract workers into consideration. Some of the ports’ formal employees discriminate against them and treat them as second-class citizens. Managers in both ports and labor agencies also ignore their temporary workers’ family responsibilities (Gu 2006). As a result of the discrimination they suffer, and the fact that they have to do the same job with different pay, the container truck drivers frequently shift from agency to agency.

Analysis

China’s trucking industry has three different sectors, each with its own structure and labor market. Inside the ports, the new businesses have created highly integrated enterprises, which combine private, public, domestic, and foreign capital with information-intensive technology and flexible labor practices. This is the China that intersects directly with the global economy.

Outside the ports, common trucking is a different world. Logistics is fragmented into tens of thousands of companies, each representing the entrepreneurial dreams of a few individuals. Almost all lack capital, technology, experienced managers, and trained workers. Millions of truck drivers buy their own vehicles and compete for orders from small companies that themselves lack capital, management expertise, and bargaining power. While these diverse actors strive to generate profits, they have to deal with countless layers of authority striving to finance activities by levying fees and tolls on the freight transport industry.
Theft, falsification of records, bribery, overloading of trucks, unsafe vehicles, dangerous driving behavior, and excessive pollution detract from China’s prosperity.

The chaotic competition of the common trucking sector as well as the capricious regulatory system holds back the development of container trucking, which in most of the world is an important component of modern logistics. Since road container transport has to compete with the low rates of the common trucks, much of China’s freight is only packed in containers when it reaches the ports. The road container companies lose millions of tons of freight orders to common trucks, which use more fuel, generate more emissions, and create more congestion. The fact that government agencies impose higher fees on the container trucks than they do on the common trucks, which routinely overload, reinforces the sector’s backwardness.

In each of the three industry segments we have investigated, truck drivers experience difficult working lives. Container truck drivers working for labor agencies inside the ports are looked down as second-class citizens by the ports’ formal employees and by local authorities. Container truck drivers outside the ports are squeezed by heated, often illegal, competition. Some of them buy container trucks and pay maintenance fees, management fees, fuel prices, and highway tolls all by themselves, but they have to link themselves to a container company to get the license they need. Some of them are hired temporarily without health insurance or pension. A third of container drivers choose to drive fake license, or “black,” container trucks to reduce their operating costs so that they can bid low and take orders away from larger container truck companies. Road freight transport is conducted by 13 million drivers of common trucks. They come from rural regions with the hope of earning money to build a house in the countryside. They gather in transportation markets and drive two to a truck, 20 hours a day, from one city to another. Their health suffers from the poor working conditions.

Recent Changes in Chinese Trucking

In 2008, the surge in global energy prices pushed the Chinese government to raise diesel prices from levels that were already high as a result of fuel taxes. This move provoked protest—throughout China, truck drivers have been imitating taxi drivers in refusing to work. Sitting and drinking tea together has been the preferred mode of protest; to date, it has provoked sympathetic statements but no policy change from public authorities. Since the drivers are labor service contractor or independent contractors, they have not seen any union support for their work actions.

Truck drivers would like to have an organization similar to a union to represent them vis à vis freight transport firms as well as government agencies. Given their dispersion, mobility, and low human rights and risk awareness, however, a viable association of independent contractors may not emerge for years (Liu 2007).

The passage of the labor contract law in 2008 is another potentially significant change in the trucking labor market. How the law is administered and enforced could play an important role in shaping the future of China’s economy.

Conclusion

The undercapitalized, highly competitive trucking industry and its contingent system of employment provides cheap freight rates but imposes heavy economic and social costs. The drivers damage their own health; their old, dirty and inefficient trucks pollute freight routes, contributing to the asthma-, lung cancer—, and heart disease—causing smog that infests China’s industrial regions. Cargo theft is impossible to control; shippers figure on lost pallets and even lost containers. Perhaps most important is the detrimental impact this employment system has on the nation’s supply chain: while the ports possess superior information-processing technology to link factories, terminals, ships, and customers, the millions of old trucks cannot participate in a just-in-time system. They show up when they show up, they get loaded when the warehouse is ready, they wait in traffic, and they break down and wait by the side of the road as their drivers fix them. Furthermore, as labor cost pressures push manufacturers to move factories further inland, making them even more dependent on truck drivers to reach export markets, the hypercompetitive, undercapitalized industry with its contingent labor market will present an even more important barrier to future growth and development.
Logistics accounted for 18.4 percent of China's gross domestic product in 2007, about twice the proportion in the United States. The World Bank ranked China's logistics performance 27th worldwide in 2010. This relative inefficiency means that China's businesses face logistics costs that are 40 to 50 percent higher than their counterparts in the United States. This is a significant concern of the Chinese government, which would like to relocate factories inland where labor is abundant. At the moment, the inefficiencies of China's inland logistics system pose real challenges to these plans.

At the same time that the Chinese government invests heavily in improving infrastructure to facilitate freight transport, it should deregulate its trucking industry to induce transportation companies to invest capital in modern truck fleets. It should also improve the employment status of the truck drivers. Without adequate regulation, trucking will stay on the low road, a path filled with pollution, poor health, accidents, congestion, theft, delays, and inefficiencies.

References


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