The Outlook for the LTL Trucking Industry

By

Yossi Sheffi

INTERNAL CTS REPORT

Center for Transportation Studies

Massachusetts Institute of Technology

January 5 1994

The Outlook for the LTL Trucking Industry

By

Yossi Sheffi

An important segment of the US trucking industry -- the long haul (mostly unionized) less-than-truckload (LTL), is facing a difficult time due to strong competitive pressures and high labor costs. As management and labor will be facing each other shortly in a new industry-wide set of contract negotiations, both labor and management should consider the less-than-promising outlook for the long haul less-than-truckload industry, and come up with innovative new approaches.

LTL trucking involves the movement of medium-size industrial and commercial shipments ranging in size from 50 lbs. to well over 10,000 lbs.. Since these shipment are too small to send directly from origin to destination in a dedicated truck (which can typically haul 45,000 lbs.), LTL trucking companies have each created a set of freight handling terminals. Freight is typically collected in an origin city terminal, advanced to a consolidation terminal with all other outbound freight from the origin city. There, it is combined with freight from other city terminals, sorted and trucked to another consolidation terminal, where it is combined with all the freight destined to a given city, sent to that city terminal, and from there distributed to the consignees.

The environment in which the carriers operate has changed dramatically over the last decade: first, the transportation industry was deregulated in the early 1980s and carriers were permitted to enter and exit interstate carriage markets independently and compete with each other through pricing. More importantly, over the same period, the carriers' customers -- the industrial and commercial shippers -- have undergone fundamental changes. Some of these changes were initially favorable to the LTL industry. For example, the move to cut inventories everywhere, in particular stock-less manufacturing, tended to favor shipping more frequently and in smaller quantities. This benefited the LTL carriers at the expense of TL carriers.

Stronger market forces, however, were pushing shippers in directions which were less advantageous for the LTL industry. Most importantly, these shippers have been exposed in the last two decades to fierce global competition which forced them to look wherever they could to cut costs. In conjunction with becoming more efficient internally, shippers have demanded price reductions from all their suppliers, including the carriers (in all modes of transportation). In addition, these shippers have demanded better performance in terms of lower transit times, consistent deliveries, error-free billing, shipment tracking, electronic data interchange, and many other services in addition to basic trucking. Thus carriers were required to do more, perform better, and be compensated less for it.

Most of the long-haul LTL carriers have not performed well financially in this environment. The reasons are the following:

- All leading LTL carriers offer a similar set of services and thus carriers tend to compete with each other on the basis of price, leading to low margins.
- Once invested in terminals, equipment and expensive information systems, the marginal cost for carrying additional freight is low and so carriers tended to offer prices which cover variable costs without getting enough revenue to cover the costs of developing systems, replacing plant and equipment, and other overhead items.
- Most of these carriers employ union labor involving relatively inflexible contracts. Labor rates (including both salary and benefits) are higher at union carriers, and since labor constitutes 50% - 60% of these carriers costs, their expenses are higher than non-union carriers. The combined effect of low revenues and higher costs means low profits.

The LTL carriers have long recognized these trends. Over the last decade LTL carriers have invested heavily in quality processes, information technology resources, re-engineering efforts, and other initiatives aimed at reducing the costs of doing business by becoming more efficient producers. The carriers that survived the shakeout that followed the 1980 deregulation of the industry (less than *one third* of the top carriers before deregulation are still operating today) have, in fact been extremely successful in these efforts. They are as lean and efficient as the best service provider or manufacturer in any industry. Unfortunately, this is not enough any more.

The industry is now faced with new threats which are likely to cause the segment of the industry comprising the long haul unionized carriers to shrink further. These threats include the following:

- **Small shipments** -- At the low end of the shipment size, UPS has introduced new services and pricing structures which are aimed directly at capturing industrial shipments of up to 1000 lbs. Since UPS is already picking up and delivering freight at most shippers' docks, the extra pickup and delivery costs are relatively low. Furthermore, while a union carrier, the UPS contract allows that company to use part time workers and utilize freely railroad intermodal freight services, making UPS, which is one of the most efficient service operations in the world, even more cost competitive. Other small shipment carriers such as RPS are non-union employers and have both flexibility and a labor rate advantage. Further competition in this segment of the market can be expected from air carriers as shippers' requirements for short, time-definite deliveries intensify.

- **Large shipments** -- while truckload (TL) carriers used to be competitive only for shipments consisting of full trailer-load of freight, they are now competitive even for shipments of less than 10,000 lbs.. TL carriers are mostly non-union providers without expensive terminal infrastructure. This means that entry into that industry is relatively easy, creating a very competitive and low cost TL environment. Furthermore, new information and communication technology has enabled these carriers to become extremely efficient, combining satellite positioning systems with state of the art computerized dispatching, load swapping, and other operational optimization schemes. As a result TL carriers are becoming even less expensive for shippers to use at lower and lower shipment weights.

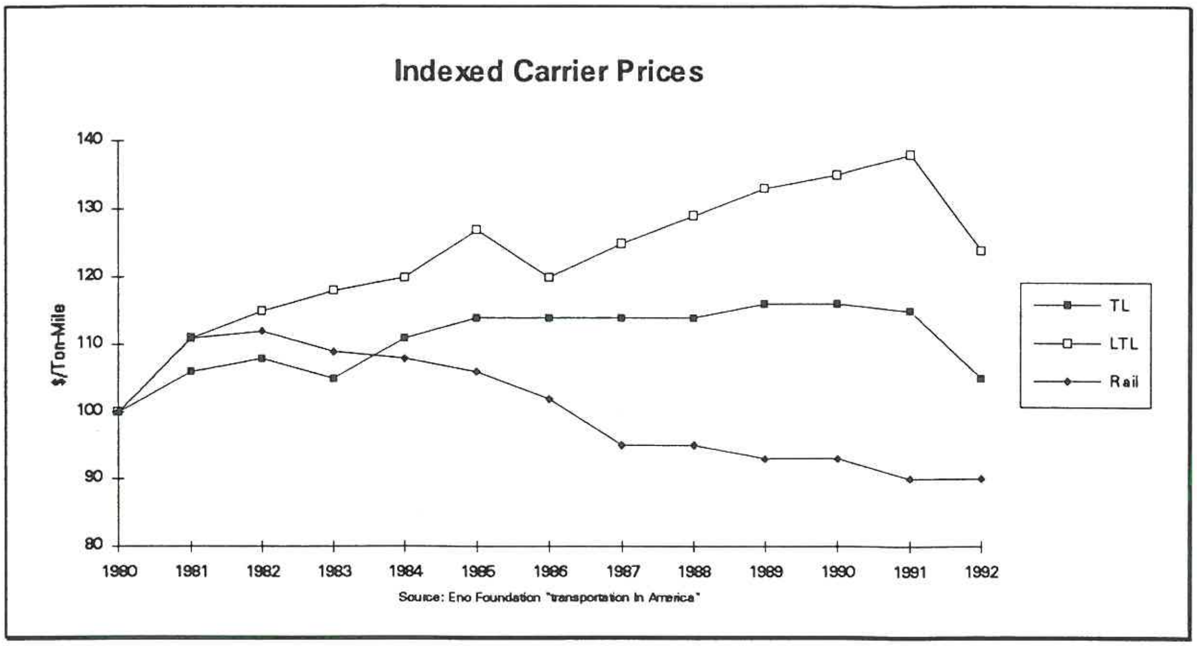
- **Mid-sized shipments** -- The advances in information and communication technology and the competitive nature of the TL industry have enhanced TL carriers' ability to offer "stop-off" service whereby a truck collects several shipments from one or several origins and drops them off at several destinations. In effect this constitutes "in-vehicle" consolidation. Such a service is very cost-effective for shipments in the 2,000 - 7,000 lbs. range, when the origins and/or the destinations are clustered in close proximity, or along a travel route. This mode of transportation service, which is only starting to grow in popularity, is aimed at the heart of the traditional LTL industry.

- **Non-union and regional operators** -- While the national LTL carrier have experienced deteriorating profit margins, regional carriers, mostly utilizing non-union labor, have prospered and grown. These regional carriers are already starting to interline with each other and expand their territory in order to offer long-haul LTL services, in competition with the current national LTL carriers. One such carrier -- Overnite -- is already national in scope while others are following suit.

Thus the national LTL carriers are facing competitive threats from other modes of transportation which are aiming at every segment of their market. In addition, non-union LTL carriers are competing with them over a growing geography.

Note that one may associate the recent poor financial performance of the LTL carriers with the recession of the last several years and think that as the economy rebounds, the fortunes of the LTL carriers will take a turn for the better. This is a mistaken and dangerous belief for any LTL carrier. Neither the pressures on nor the requirements of the shipper community are likely to abate -- if anything shippers' demands from their carriers for more services, world class quality and low prices will only accelerate. Furthermore, neither the fundamentals of the LTL carrier industry mentioned before, nor the threats from other modes of transportation and non-union operations are likely to slacken in the coming decade.

To see the point graphically consider the following chart, depicting prices per ton-mile for LTL, TL, and rail carriers. These prices have been adjusted for a common index of 100 for 1980.



Note the general upwards trend of the LTL prices while TL prices remain flat and rail prices decrease. If one adjusts these data for the producer price index, LTL prices stay basically flat over this period, TL prices show about a 25% reduction, and rail prices show a reduction of over 35%. These figures are significant because they demonstrate the large and growing price advantage of truckload carriers which threatens the large and mid size LTL shipment sizes. The reduction in rail prices means that carriers such as UPS and non-union LTL carriers who are free to use the rail in intermodal services will continue to be a formidable threat for all other segment of the market.

Two facts make these figures even more disturbing for LTL carriers: (i) the rail figures are average across all commodities; due to truck competition, intermodal prices are set by railroads lower than prices for bulk commodities and thus the figure may actually inflate intermodal rail costs, and (ii) the LTL figures include both union and non-union carriers;. the relative picture would be worse for union carriers if their data were separated from the non-union truck lines.

The question, naturally is what should the national LTL carrier do in the face of these odds. The answers are not too difficult and , in fact, carriers have started working along the lines mentioned here already:

1. **Labor costs and flexibility** -- On March 31 the current contract between the national LTL carriers and the teamsters union will expire. Both union and management are gearing for a long battle which can be devastating to the industry. The obvious course

of action here is to avoid any work stoppage and come up with a creative labor agreement which includes significantly more flexibility in utilizing resources, employing part time workers, moving work between terminals, using intermodal rail wherever economical, and other such union work rules changes. These will allow the industry to regain some lost ground by growing out of its troubles.

2. **Automation** -- Carriers should redouble their effort to take advantage of new information and communications technology. Aside from reducing overhead and streamlining office processes, the new technologies should enhance the carriers' abilities to respond faster to changing market demands. These can be achieved, for example, through automatic dispatching, better operational load planning, advanced yield management, better scheduling, and other similar innovations.

3. **Value-added services** -- Carrier should continue expand their services to include logistics, inventory management, in-transit merging of components, part sequencing, etc. Most large carriers have created independent business units to take advantage of these opportunities; the growth of these businesses should provide a natural feed into the carriers' basic LTL business.

4. **International operations** -- Most LTL carriers have established ties with European and other international transportation entities in order to provide international LTL and LCL (less-than-containerload) services. many of these are fledgling alliances which encounter start-up problems. These operations should be strengthened and marketed aggressively to international shippers.

The three last strategies are all avenues which the national LTL carriers are already using to various degrees. These strategies are effective because they play to these carriers' strengths: financial depth, sophistication, national coverage, and wide scope of operations. Smaller carrier may find it difficult to make the investment necessary in order to develop these services and methods.

It is the first point, however, which will determine the long term fate of these carriers. Without labor flexibility, even the most modern computers cannot execute operational changes or take advantage of market opportunities which may be different than past ones. The challenge for both management and labor is to realize that both sides do have everything at stake here and if sacrifices are needed, both should contribute. If these challenges will not be met, the unionized long haul LTL industry will not disappear over night, but it will face a long process of continuously declining business, profits, management positions and union jobs.

Dr. Sheffi is a professor at he MIT School of Engineering and Director of MIT's Center for Transportation Studies