

## **SUPERVISION, CONTROL AND REGULATION OF LAND TRANSPORT**

The first Latin American meeting of bodies responsible for the supervision, control and regulation of land transport, organized jointly by the Economic Commission for Latin America and the Caribbean (ECLAC) and the National Transport Regulation Commission of Argentina (CNRT), was held in Buenos Aires from 5 to 7 November 1997. Representatives of public- and private-sector bodies connected with land transport in Latin America, the United States of America and Europe took part in the meeting, in an atmosphere which was highly interactive owing to the numerous questions asked and the enriching discussions.

Papers were presented on the supervision, control and regulation of land transport in Argentina, Brazil, Chile and Mexico. Other presentations included the evolution of the role of the State in the supervision, control and regulation of land transport, international experiences in the regulation of transport and the role of regulatory bodies, and experience in Spain of price and quality regulation in transport; the last two topics were presented by experts from the Economic Development Institute of the World Bank.

Regarding the competitive aspects of the market, a paper was presented on the identification of anti-competitive situations and measures to restore a competitive environment. The following subjects were discussed in the area of safety: monitoring of the technical condition of vehicles; supervision of the working hours and conditions of drivers and other personnel; and transport of hazardous materials. Finally, on the subject of external costs, papers were presented on transport and environmental pollution and on monitoring of vehicle weights and dimensions.

On the second day of the meeting, a number of round-table discussions were held, involving representatives of various business entities and transport users' groups from Argentina, Brazil, Chile and Peru. They discussed the need for regulation of different urban and non-urban freight and passenger transport companies, as well as experiences relating to services provided to transport users.

The following is a summary of the document "The evolution of the role of the State in the supervision, control and regulation of land transport", written and presented by Ian Thomson ([ithomson@eclac.cl](mailto:ithomson@eclac.cl)), an economist with the ECLAC Transport Unit.

### **Evolution of land transport institutions in Latin America over the past twenty years**

Twenty years ago, the various countries of Latin America had subsidized, state-owned railways; but it is highly probable that, as this century draws to a close, almost all railway services will be

privately operated. As for road freight, it has been affected very little by the institutional changes which have transformed land transport; truck operators were already private enterprises and were not highly regulated, except for international movements. Two decades ago, many major urban transport systems were operated by state-owned companies, but the general trend has been towards replacement of publicly-owned by privately-owned operators. Inter-city bus services were never state-run to any significant extent. Nonetheless, although the ownership of such services has not changed, in some countries they have experienced fundamental changes in respect of regulation.

In 1977, private urban and inter-city passenger transport companies were generally subject to considerable state regulation; their prices were fixed by government ministries, and capacities and the frequency of services were controlled. Outside urban areas, they practically functioned as contractors; in other words, they provided services determined by the authorities and had no incentive to improve the quality of the service they provided or to show any commercial initiative. In some countries, such as Brazil, state regulation is still the same as it was 20 years ago.

The state-owned companies were generally self-regulating, in accordance with safety provisions, technical rules, pricing policies, etc., contained in the legislation under which they had been created. That sometimes put them at a disadvantage compared to private companies active in the same sector, which were not required to comply with the same standards or failed to do so because of the lack of supervision and monitoring. Private bus companies were subject to a series of regulations affecting business issues as well as technical or safety matters. The regulations implicitly or explicitly reflected the fear that market forces might bring about a situation in which some segments of the market were neglected or levels of quality were unacceptable. In particular, in the area of passenger transport, governments tried to ensure that adequate services were provided by granting concessions or permits which were retained by the same companies on a quasi-permanent basis. To protect users from the monopolies that they had thereby created, the authorities then subjected the operators to a series of regulations concerning prices, timetables, the transfer of vehicles to other services, etc.

The authorities tended to fix prices at relatively low levels, especially for urban transport, in order to reduce travel costs for lower-income groups and/or to hold down inflation indices. This had some negative consequences, such as less frequent vehicle replacement and overloading of buses.

The institutional situation of land transport had reached a point where fundamental change was needed. This has already taken place in a number of countries, such as Argentina, Bolivia, Chile, Mexico and Peru. In the developed countries, the regulation of land transport was not radically different from that of the Latin American countries, but it worked better because markets tended to be relatively stable, public administration was more effective and also, as far as passenger transport was concerned, state-owned transport was less important in comparison with private means of transport. Reforms took place in various countries, and there are considerable differences from one case to another. Among the developed countries, there have been significant innovations in the United States of America and the United Kingdom. Notable reforms were also implemented in New Zealand. In Latin America, Chile has played a leading role. There is much to be learnt from all these experiences.

### **Ups and downs in state intervention**

Long before the Second World War, with few exceptions, there was a worldwide trend towards growing state participation in transport, either as an operator or as the regulator of the activities of transport companies. The participation of the state as an operator was motivated in most cases by the insolvency of railway, tram and other companies, and by factors such as: (i) technical changes in the areas of automobile transport and roads, (ii) increased incomes (which encouraged the acquisition of private vehicles and led to falling demand for public transport), and (iii) dispersion in land use (which made traditional means of transport less competitive, since they had to follow fixed routes). Additionally, in certain countries such as Argentina or the United Kingdom, trends in political ideology sufficed to bring about state-operated transport.

Normally, government regulation exists before state-operated transport; in the case of mechanized land transport, it began with railways and trams. In the case of tram companies, safety regulation was needed because trams used public roads together with other vehicles and pedestrians. As early as the 19th century, however, some municipal authorities such as those of Bogotá and Buenos Aires, concerned at the monopolistic position of the operators, imposed price controls upon them in order to ensure the quality of service for users. In later years, excessively tight price controls were a major factor in state or municipal takeovers of tram companies.

**Deregulation in Latin America began in Chile:** fundamental economic reforms beginning in the mid-seventies led to a fairly thorough liberalization of economic activities in Chile, including transport. Road freight was deregulated first, in 1975, through the implementation of an anti-monopoly law. (The previous Government had controlled truck imports, giving a virtual monopoly to a Spanish manufacturer, as well as entry to the road-freight sector and the value of truck fleets.) Then, between 1977 and 1979, entry into and exit from the inter-city bus transport sector, and pricing in that sector, were liberalized. Subsequently, through a process which was not completed until 1987, the same was done for urban bus services.

The advocates of that deregulation were generally not technical experts or professionals in the transport field, but the economists of the Chicago School, who habitually consider a wide variety of economic sectors without discrimination. In one instance, the Minister of Transport and Telecommunications, who was a general in the Chilean Armed Forces, tried to maintain elements of quality control over the fleet of buses operating in Santiago, but the opposing viewpoint held by the Minister of Finance, an engineer with Chicago-style neo-liberal economic ideas, prevailed.

During the deregulation process in Chile, serious attempts were made to improve market efficiency. These included various measures to provide bus users with the necessary information so that they could make rational choices among the different services offered, to defend their rights, and to promote responsible behaviour by the bus companies. The measures included severe fines for misplacement of luggage on inter-city bus services, and consideration of the fare as a legal contract between the operator and the passenger.

In other countries of the region, the Chilean experience of transport deregulation was the object of some criticism, not always justified. (The fact that the reforms were introduced under a military government certainly swelled the opposing voices.) Regarding freight transport, the Chilean reforms did not give rise to institutions which were greatly different to those of other countries; nonetheless, Chilean policy on inter-city passenger services, and the resulting situation, were not matched in the short term in any other country of the region. Although it was criticized in other countries, particularly by operators in countries where they still benefited from regulatory legislation, there is no doubt that the new Chilean policy was generally successful and gave rise to very

competitive and efficient services. The companies operate at a profit, and users can choose among services with different levels of quality the overall standard of which is very good, and with a range of prices which are generally lower than those in the other countries analysed in an ECLAC survey in the early nineties.

Deregulation can be considered successful in almost all Chilean cities although, in major towns and especially in Santiago, it has given rise to a series of problems connected with pricing levels, congestion and air pollution. On the positive side, service coverage has improved noticeably. The reasons why deregulation has been less successful in major towns have been assessed by ECLAC on other occasions. During the nineties, although the national Government has created regulations in Santiago which are rather different from those of 15 years ago, it is significant that until late 1997 it introduced no significant changes in the economic structure of urban or inter-city transport in other cities.

**Deregulation crosses frontiers, but not many.** The only other country which has adopted a deregulation plan as extensive as that of Chile is Peru, where the practical effects have been even broader than in Chile, because imports of used vehicles have been allowed. Many of the vehicles have been brought in from Asian countries, bought by small enterprises and used in Lima and other towns. Legislative Decree No. 640 of 25 June 1991, eliminated all administrative and legal obstacles to free access by new concession holders, was applied to urban transport. In 1997, on some routes, insufficient monitoring of the mechanical condition of vehicles or gaps in safety regulations led to a decision to "freeze" the number of vehicles. Later that year, the preamble of a draft Supreme Decree stated that the public service of long-distance passenger transport by bus was in a state of crisis due to frequent accidents and other factors. The new draft decree proposes to reinstate a system of concessions.

In Lima, the municipal authorities grant concessions to operate public transport routes, but the objective is not to restrict the number of vehicles. In any case, many vehicles operate without concessions. It is estimated that in mid-1997 about 50,000 public transport vehicles were operating in Lima. There is now considerable interest at the city-wide and municipal levels in the possibility of reorganizing and rationalizing the public transport network in Lima.

In 1992, long-distance passenger transport by road in Argentina was deregulated; by late 1997, work was in hand on an overall assessment of the results. Although operators complain of low profit margins, the new situation may prove satisfactory for the users. As usual in cases where a bus service is being deregulated, supply has increased more than demand, so the buses are less crowded. The users will certainly prefer this, provided that the resulting situation is not one of imbalance.

Urban public transport in Argentina, be it under federal, provincial or municipal jurisdiction, has undergone no major regulatory changes. In Bolivia, inter-city bus services have been deregulated, and regulations have become much more flexible in urban areas. However, in both Latin America and Europe, cases of deregulation are still the exception to the rule. Chileans call themselves "the English of Latin America", referring to the deregulation of transport in Chile and in Great Britain and the relative scepticism it has aroused in many other Latin American countries and in continental Europe; they may be right.

**Privatization moves faster than deregulation:** Progress in privatizing transport services has been more noticeable in many countries of the region. At the end of this century, the only national

railway systems which are likely to remain state-run are those in countries where they are of very minor importance, such as Paraguay, Uruguay and Venezuela, leaving aside the special case of Cuba. The only urban or inter-city buses which will probably still be run by public-sector bodies are those of certain Brazilian cities, certain trolleybuses in Argentina and Ecuador, the Metrobus in Caracas, and some municipal buses in Quito - again leaving aside the special case of Cuba.

### **Economic regulation of transport in the current situation**

In the present situation, there are more and more of the following: (a) private enterprises created by the sale or concession of publicly-owned companies which had previously controlled a transport market, and (b) transport subsectors where regulations which had previously been imposed on private operators have been abolished or are considered restrictive and in need of reform. Regulation is the issue in both cases, but its characteristics are different, as are the solutions.

In case (a), the private enterprise frequently comes into being in a market in which it has monopolistic powers; specific legal instruments should therefore be available in order to ensure that the enterprise does not exploit the monopoly for its own benefit, against the interests of the community. For example, a railway company serving the mining industry can, by manipulating its own prices, internalize for its own use a possibly excessive proportion of the surpluses of its captive customers. The same situation arises in the case of a road managed under concession by a private company which is authorized to collect tolls.

Save in exceptional cases, the monopolistic power of transport companies is far from total, owing to the existence of transport options which are less attractive for the client, such as trucks which are available as an alternative to trains, or other roads as an alternative to a privately-run highway. However, although trucks can also transport minerals, if volumes are high then unit costs will also be high; and alternative roads are seldom an attractive option.

Perhaps the state need not always pay too much attention to the distribution of profits between, say, a railway company and a mining company. Nonetheless, high freight charges could have repercussions which would slow economic growth, rather than affecting only the distribution of the fruits of that growth among the parties involved. For example, freight charges much greater than the corresponding marginal costs could discourage investment in new mines which would have been opened had the charges been more moderate. The monopoly enterprise, a railway company in our example, could offer lower charges to new customers, which would give rise to accusations of discriminatory treatment as well as discouraging new investment by traditional customers.

The latter could solve the problem by obtaining the railway operating concession from the government during the corresponding bidding process or, later, from whoever had been granted the concession. If it did so, it could decrease freight charges for its own use and increase them for its competitors; the consequences would then be the opposite of those described in the previous paragraph.

At any rate, high freight charges, which would maximize revenue for the railway company, could divert part of the traffic to the roads, resulting in a considerable social cost because of consequences such as (i) increased traffic accidents; (ii) damage to road surfaces due to the high axle weights of trucks; and (iii) delays for the occupants of light vehicles stuck behind slow trucks.

In general, it is desirable that governments should control freight charges, perhaps guaranteeing

the continuance of a reasonable relationship between the charges and the corresponding marginal costs, in order to ensure non-discriminatory treatment for customers and to keep railway company profits within reasonable limits.

Government legislation, anti-monopoly laws and other regulatory provisions are insufficient in case (a) for various reasons including sometimes the confidentiality of commercial contracts (meaning that one customer cannot always find out how much another is being charged). With concession contracts, it is necessary to ensure that the monopoly operator does not take advantage of the situation and that, at the same time, it continues to have incentives to improve the quality of its services and to reduce its costs.

In the United States, that problem is essentially solved by defining a reasonable level of profitability for the monopoly operator. In the United Kingdom, the preferred approach is to fix, for a period of five years, the adjustments in the scale of charges that the company is allowed to apply, as a number of percentage points below or above the consumer prices index. Both options have advantages and disadvantages: the United States method protects the interests of investors and maintains profitability despite unexpected fluctuations in input costs, but if the permitted profit levels were fixed slightly above the market value, it could encourage the companies to make unnecessary investments simply to maximize the return on its capital. Under the British option, the companies would have greater incentives to cut costs, but the task of determining authorized price adjustments is sometimes difficult.

In the particular case of the British railway system, the method of privatization involves the creation of separate administration for the rail network and for train operators. A monopoly enterprise called Railtrack manages the tracks, and about 20 other companies operate the trains in different areas of the network. The regulatory body requires Railtrack to achieve an annual cost reduction of two per cent in real terms, taking account of economies which can be achieved in maintenance costs. Variations in passenger pricing by those firms which operate with monopoly powers, particularly those operating urban or suburban services, are also subject to maximum real levels.

British railway privatization provided for various mechanisms to ensure a sufficient level of competitiveness, and incentives to provide services of acceptable quality. For example, the duration of concessions for passenger services varies between seven and fifteen years, after which the bidding process is repeated. Some operators are negotiating for extensions of their concessions in return for investments over and above those initially agreed. It is characteristic of British railway privatization that the operators are not obliged to purchase their own equipment; all rolling stock was initially in the hands of leasing companies, also privatized. Operators could also opt to acquire new equipment through one of the three leasing companies. Some operators choose to do so, while others purchase it directly or through their parent companies.

In case (b), potential monopolies could also be a problem. In the case of inter-city passenger transport, for example, an already predominant company could try to put smaller competitors out of business by charging very low fares until the smaller companies withdrew from the market. There have been such cases in Chile, in the areas of bus services and commercial airlines, and some of them have led to legal action. On the international level, similar actions by Pan American Airways and British Airways effectively eliminated the commercial threat from then recently formed Laker airline. A large company could also defend itself from competition in other ways, such as building a new terminal and abandoning the terminal used by other companies. Competitors could also be

eliminated by operating services which run ahead of those of other companies. There have even been cases of mysterious damage to the windscreens or tyres of vehicles belonging to new competitors.

In various cases of type (b), a monopolistic alliance could be created by agreement among operators to control fares or restrict the services offered. Such agreements are not usually in the form of written documents, and their existence is difficult to prove. It is however almost certain that in Santiago, Chile, in the 1980s, and in Lima, Peru, during the following decade, there were understandings among transport companies to implement coordinated fare increases.

Also in case (b), particularly in respect of urban public transport, deregulation would probably lead to oversupply by giving too much encouragement to the entry of new operators, due to the non-payment of marginal social costs that it brings about. Those costs are related to traffic congestion, air pollution and accidents. A comparable situation can arise in the case of road freight because, in the case of vehicles with the highest axle weights, the tolls charged generally fail to cover the corresponding road-maintenance costs.

In case (b), the market would still appear competitive; normally, there would be no visible barriers to the entry of new operators. However, a concealed barrier may still exist - the threat of a price war, or something of the sort - and may effectively discourage the entry of new competitors. In case (a), the operator may discriminate among different groups of clients, whereas that option is not available to operators in case (b).

**Bringing order to a type (b) market, taking account of current conditions:** There is little doubt that the regulation of the past resulted in a reduction in companies' commercial motivation. The problem that will now have to be dealt with is how to regulate transport in such a way as to ensure (i) that the market is competitive, and (ii) that the resulting social benefits exceed the social costs, to avoid obstructing the efficiency gains that privatization and deregulation are intended to create.

Space is too limited in this overview for a full analysis of possible solutions in case (b). An interesting case for consideration is that of the bidding process for public transport concessions in Santiago, Chile and, just as importantly, the successive re-bidding processes which take place when the concessions expire. The duration of the concessions is in itself a matter of interest; if they are short, the market becomes more competitive but, at the same time, there are fewer incentives for investment in plant and equipment with a long service life. The desirability of short-term concessions and the need for investments which take several years to amortize could be reconciled by introducing the concept of leasing, as in the case of British rail privatization.

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## RELEVANT PUBLICATIONS

**"South American Shipping - from Crisis and Chaos to Stability and Prosperity"**, by Drewry Shipping Consultants, London. Language: English. Price: GBP 395.00 or US\$ 656.00. 175 pages. Date of publication: June 1997. Contact: email [enquiries@drewry.co.uk](mailto:enquiries@drewry.co.uk) Fax: +44 171 536 6529

Of all recent publications on the maritime sector in South America, this Drewry study is probably the most comprehensive. It consists of four major sections, in addition to a four-page executive

summary and a twelve-page section on the outlook for the future. The areas covered include an economic and industrial profile (44 pages); South American maritime merchant shipping (86 pages); the impact of privatization on ports and the transport infrastructure (14 pages); and South American merchant fleets (six pages and a nine-page appendix). The countries examined in detail are Argentina, Brazil, Chile, Colombia, Peru and Venezuela.

For an economic and industrial profile of the region, it is probably preferable to consult certain recent ECLAC publications, such as the "Preliminary Overview", available on the Internet at <http://www.eclac.cl/english/Publications/bal97/indice.htm>, the "Statistical Yearbook", or the "Economic Survey", since the Drewry study is mostly based on 1995 figures.

Of particular interest for the maritime and ports sector is the "Trade and Shipping" section, which examines the different major cargo types and analyses production and demand, as well as shipping services. It also includes a brief qualitative description of all the relevant ports.

The section on "Port Privatizations and Investment Opportunities" is more reliable for the Atlantic than for the Pacific coast. It also includes a chapter on road and rail links, mainly in MERCOSUR. The section on the South American merchant fleet is very brief, since only about two per cent of the world's merchant shipping belongs to the region's shipping companies.

The last section covers prospects for the short and medium terms, and mostly coincides with our expectations. For example, Drewry points out that "on the west coast the hubbing focus probably will be extra-regional (Panama, in particular)", and "on the east coast Brazil could see a massive rise in container handling activity if/when port privatization reduces terminal costs to international standards".

This study could be a worthwhile investment, and could save many man-days on research for a shipping company or port operator which is considering entering this promising market.

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