

# Chapter 5

## ALTERNATIVE APPROACHES TO ROAD TRANSPORT REGULATION

### 5.1 Regulatory Aims and Principles

The PRC's approach to regulating road passenger transport is one of close government supervision of most aspects of operation. As we shall see in Chapter 7, the current degree of control tends to inhibit responsiveness to changes in demand, stifle innovation and efficiency on the part of operators, and require a complex and expensive bureaucratic system to implement it. The main objectives of regulation are, broadly, to achieve adequate service provision without excessive capacity, at an acceptable standard of safety. The existing approach focuses on specifying the form that organizations should take and the procedures they should follow to provide ser-



vices of an acceptable standard, without always stating what those standards are. The ideal regulatory framework is one that creates the environment in which an efficient industry can develop in line with government policy with the minimum of government intervention.

While freight transport is not controlled to the same extent, the regulations dealing with vehicle maintenance and safety are applicable to both passenger and freight transport.

A change in emphasis—to set and enforce specific standards where necessary, but to make transport operators responsible for taking whatever measures are necessary to achieve those standards—would eliminate the need for much of the present regulation. It would give operators more freedom to decide on their own and enable the industry to become more responsive to changing circumstances. It would reduce the administrative burden, releasing resources to enable enforcement to be strengthened; and while the degree of regulation could be reduced, the remaining regulations could be much more effectively enforced than they are now.

The definition of standards is critical. The most important are safety standards, which in practice can be specified only in terms of vehicle standards on the road (as opposed to maintenance standards), driving standards, and compliance with regulations.

Vehicle standards should be specified in quantifiable terms, such as minimum tire tread depth, maximum wheel alignment tolerances, minimum braking efficiency, etc. All these can be measured at routine or random inspections. In addition, certain vehicle components must be in working order, including all safety-related items such as external lights, horn, windscreen washers, and wipers. For buses, interior condition may be specified in terms of floor and seat condition, interior lighting, and serviceability of ventilation equipment. The degree of subjectivity in assessing such items as floor or seat condition must be kept to a minimum. Other quantifiable safety parameters include vehicle loads—this is mainly applicable to freight transport but, to a lesser extent, in terms of licensed passenger capacities, to buses too. Certain quantifiable non-safety parameters should also be specified, including environmental factors such as

exhaust emission and noise levels.

Compliance with these standards can be monitored by regular routine inspections by enforcement agencies, supplemented by random checks at the roadside or in terminals.

Driving standards are more difficult to specify in quantifiable terms, and in practice must be based on compliance with all traffic regulations, particularly speed limits, and other regulations such as those governing drivers' working hours. Of particular relevance is the standard required for the issuance of a permit to a new driver. At present, this is low in the PRC; but by international standards and by raising standards in this area for all drivers, including private car and truck drivers, the level of safety for all road users would be improved.

Compliance with traffic regulations can be monitored by roadside observation by the enforcement agencies.

All the above regulations and standards should be clearly specified in national regulations governing vehicle construction and use. Ideally, for consistency, they should be applied nationally, with no variations between municipalities and provinces. These regulations would cover all aspects of vehicle construction and use, including maximum vehicle dimensions and weights, requirements for insurance, etc.

The regulations should not be so rigid that they stipulate particular types of vehicle for particular types of service. Provided that safety requirements are met, operators should be able to decide the types of vehicle to use, and a competent operator would use the most suitable for the circumstances. For example, although technically illegal, informal passenger transport operators provide a valuable service, often with unconventional vehicles, at fares determined by market forces, in remote rural areas where there are no formal bus services. The types of vehicles used might not comply with existing regulations, but they are often suitable for the purpose. Legislation should

provide for such informal transport modes , with appropriate provisions regarding safety and insurance.

Also important is the level of professional competence of the transport operators. The poor quality of service provided by some of the smaller operators in the PRC is partly due to a lack of basic knowledge of the market or the industry. This can be addressed by requiring all operators to acquire and demonstrate this knowledge. For example , in the UK , all bus operators require a certificate of professional competence ( CPC ) , issued upon passing an examination. Such an examination could be graded for different sizes of operator.

The other primary aim of the present regulatory system governing passenger transport—namely , to ensure the provision of adequate bus services in all parts of the country—does not require direct government intervention. Where there is demand , operators will provide a service ; and in a free market , supply will tend to equate to demand , at economic fares for each standard of service. The market will encourage best practices within the industry , attract private capital into the industry , and promote innovation.

Problems experienced in other countries where transport regulation has been left to market forces have been due almost entirely to a failure to enforce basic standards of safety and , to a lesser extent , standards of management competence. The market can become flooded with incompetent and irresponsible operators , with little knowledge of the market , who do not comply with safety standards or traffic regulations. Proper enforcement of safety and management regulations would eliminate such operators and ensure the survival and the growth of the more professional among them.

## 5.2 Leveling the Playing-Field

The categorization of bus operators , when applied , gives advantages to the larger operators , par-

ticularly in terms of the routes that may be operated. This was intended to encourage the consolidation of smaller operators into larger organizations—a policy applying also to freight transport enterprises—by offering the incentive of being permitted to operate longer-distance services , but it puts many operators at a disadvantage compared with large SOEs or former SOEs.

Not all operators are treated equally. The Heilongjiang Dragon Passenger Transport Group , for example , enjoys reduced road tolls and a relaxation of requirements for categorization as a Class I operator. This was done to encourage the amalgamation of smaller operators to form this company in 1996. Several SOEs are granted other concessions , such as authority to use buses on more than one route , which are not given to other operators. Despite a requirement to treat all operators impartially , some terminal operators that also operate buses prefer their own vehicles. In road freight transport , other areas of discrimination apply ( for example , in preferential access to freight terminals and plazas ; in the decisions made by SOE customers on their choice of ( often state-owned ) transport operator ; and in the government policies directed at building strong groups capable of competing effectively with , or becoming JV targets for , foreign companies entering the market ).

All regulations should apply equally to all operators. A change of emphasis from quantity to quality licensing would eliminate those special circumstances where certain regulations have been waived for selected operators. If a situation should arise locally where a rule is relaxed for any reason , this should apply to all operators involved. On the other hand , an operator that is able , for example , to negotiate favorable toll rates on a purely commercial basis ( such as a discount for high volume ) should be permitted to do so ; what should not be permitted is an inconsistent treatment of operators by regulatory authorities.

## 5.3 Industry Structure and the Role of Competition

### 5.3.1 Structure of the Road Transport Industries

The structure of the bus and trucking industries, in terms of the number of enterprises of various sizes and the types of service provided by each, will influence the quality and efficiency of the services provided. Smaller enterprises (1–20 buses or a few trucks) are generally more efficient in areas where demand is low or dispersed, such as in remote rural areas; large enterprises (500 buses/trucks or more) can normally provide better services on routes and in areas where demand is high. Medium- to large-size operators are generally most effective on long-distance services. Again, on intensive routes, larger operators are normally more efficient and smaller operators tend to be more efficient on routes with lower demand.

The passenger and freight transport systems must cater to highly diversified demand patterns, with millions of individual movements each day; for buses, this applies particularly to large urban areas. Not only is the geographic distribution of movements highly complex, but the variations in demand between different times of the day, different days of the week, and in different seasons are substantial.

For bus services, a system which meets all these requirements must be carefully planned, based on detailed information on passenger movements. Without detailed information and planning, transport operators would not be able to allocate their resources optimally: passenger transport services would tend to be concentrated on routes with the greatest demand, while those with low demand would receive poor service. This is particularly true where the passenger

transport industry is dominated by small operators who have little knowledge of the overall market, and who, therefore, gravitate toward routes that appear to be most busy. Market forces alone will not resolve this, as has been proved in countries throughout the world.

Large bus operators with fleets big enough to provide a network of routes are likely to have the capability and resources to gather the necessary information to plan services that are closely matched to demand, and to continuously monitor and adjust them as required. They are more capable of providing regular schedules, which may be varied in tune with demand at different times, and coordinated networks of routes over an area; and potential economies of scale, such as the use of larger depots and workshop facilities, are more easily exploited. Where services are provided by many small operators, such planning must be carried out by someone else, and there must be a regulatory system which ensures that services are operated in accordance with these plans.

MOC's categorization of passenger transport enterprises—see Chapter 7—was designed to encourage the formation of operators of appropriate size for different types of operation. However, this has proved unnecessarily rigid and in practice a number of exceptions have had to be made to meet local requirements.

The structure of the industry—this also applies to road freight transport—has also been influenced by the way existing and former SOEs are structured as groups or conglomerates, with separate subsidiaries for each activity, such as freight transport operation, passenger transport operation, vehicle maintenance, terminals, and other activities less directly related to transport operation. Other forms of structure may sometimes be more appropriate. For example, an enterprise specializing in vehicle maintenance, with the best workshop equipment available, highly-skilled

staff , and the scale necessary to justify a high degree of specialization in equipment and skills , might provide a better quality of service than several smaller , less-specialized facilities belonging to several different groups. Such an enterprise might have one or two large workshops in only one city , or might develop into a larger group , but still specializing only in vehicle maintenance , with workshops in several cities. It might service passenger and freight operators , including both urban and long-distance operators.

Most large enterprises operate both passenger and freight transport services. While there is a certain amount of commonality in the maintenance of buses and trucks , there are major differences on the operational side , and it might be better for enterprises to concentrate on one or the other. The freight subsidiaries of several large operators based in different provinces could possibly merge to form a large national freight transport operator providing a network of trunk and distribution services. This operator would be better placed than a number of separate operators to meet the growing demand for well-organized , high-quality logistics operations. Similarly , long-distance bus-operating subsidiaries in different provinces might combine to provide a national network of long-distance bus routes. It should also be possible for a single enterprise to become involved in the operation of both urban and long-distance bus services and services for tourists.

A group might specialize in the operation of bus terminals , or in the operation of buses , using terminal and workshop facilities provided by completely separate organizations. There might be some companies which engage in two or more activities. Thus , it is often appropriate for a workshop and a terminal to be on the same site ; in which case , it might be appropriate for both to be part of the same group. In certain circumstances , a single company both operating and maintaining its own vehicles might be appropriate. This might be particularly applicable for a small-

er company , but many large companies might prefer to keep their maintenance in-house , and under their direct control.

There is also no logical reason for only the largest companies to operate the longest routes. A small company , provided it has adequate provision for maintenance and the capability to provide back-up vehicles in the event of a breakdown or accident ( which may involve cooperating with other operators , small or large , along the route ) , could provide a service that is equally or more efficient and reliable than one provided by a much larger operator. This is often true in the case of specialized services , such as particularly high-quality , long-distance services , refrigerated freight services , or the transport of oversized or dangerous loads.

### 5.3.2 The Role of Competition

Competition between operators—including bus operators—should be encouraged. The experience of other countries has shown that this will result in improved services within the appropriate regulatory framework. Entry to the market should not be unduly restricted , but it is undesirable to have too many small bus operators competing on the same route. Experience in other countries suggests that in large urban areas some form of franchising ( with competition for the market but not in the market ) is normally more effective , while on long-distance services with high levels of demand , two or three operators on most routes , operating in competition , will result in good quality services , running on schedules reasonably in tune with demand. Such limited competition is sufficient to give the operators the incentive to operate efficiently , provided that there are measures to prevent undesirable anti-competitive collusion.

In a situation where a large operator would be preferable , but where there are many small operators , the small operators should be encouraged to

merge to form larger operating units. This may be done in various ways, such as the formation of cooperatives or operators' associations, or through merger of small enterprises to form larger ones. Alternatively, a large operator may be encouraged to purchase the smaller operators. Individual owner-operators should still be permitted to enter the industry. Such encouragement should not be compulsory through legislation, but the process may be assisted by permitting operators' associations to hold operating permits on behalf of their members.

Bus operators should be allowed to decide their own routes. It would not, therefore, be practical to attempt to limit the number of operators on any particular route, or to limit capacity on any route (as is done in the PRC, where a new operator could simply introduce a variation of a route which is not run by any other operator).

An important feature of transport regulation in western countries is legislation designed to promote competition, and to prevent operators from engaging in practices which restrict competition. The objective is to protect consumers from exploitation by monopolies or cartels, through such tactics as restricting the supply of a product or service, so that it can be sold at a higher price than would otherwise be the case, and preventing other suppliers from entering the market through various means. Such practices are clearly undesirable, but there is a danger that prevention of monopoly behavior—rather than protection of consumers' interests—becomes an end in itself, and sometimes legislation aimed at promoting competition can act against public interest. In the case of public transport, where several different operators provide services on the same route, it is normally in the interest of passengers for the operators to coordinate their timetables to provide a regular frequency, rather than for all their buses to run at irregular intervals or in bunches, competing for passengers at every stop, as often occurs where operators are prohibited from

coordinating their services. This means that while there may be higher capacity in terms of seat-kms, much of the capacity is wasted, and the effective service capacity is lower than it would be if a regular frequency were provided with fewer buses.

Agreements between operators as to which serves particular areas or routes, to coordinate timetables providing regular frequencies, to charge consistent fares, or to accept one another's return tickets, can result in better services, often at lower cost to the user. Since a cohesive network of services may be best provided by a single operator, there is often genuine merit, where several operators serve a common area, in their agreeing to divide it so that each part of the area is served exclusively by one operator. Similarly, a coordinated service provided by two operators based at opposite ends of a route is more beneficial to all concerned than one where the two are forced to compete, running an irregular frequency.

However, in some countries, such cooperation is not permitted under anti-trust legislation. Following the deregulation of bus services in the UK in 1985, many such agreements between operators lost exemption from restrictive trade practice legislation and were discontinued. Any anti-trust legislation that may adversely affect the provision of public transport services in such a way should be amended to give exemption to transport operators where this is necessary.

## 5.4 International Lessons for the People's Republic of China : Freight Transport

### 5.4.1 Europe

The European Union (EU) coordinates regulatory policy over transport in its 25 member states. It also has special agreements on common policy with Switzerland, Norway, and other countries. Also im-

portant in setting regulatory policy is the European Conference of Ministers of Transport ( ECMT ), which represents the 25 EU members plus 18 others and seven associate member countries<sup>[ 1 ]</sup> ; its aim is to help develop an integrated transport system throughout an enlarged Europe and develop better links between the EU and the rest of Europe. It seeks to harmonize member countries' approaches to international agreements and regulations governing freight and cross-border transport , infrastructure cost recovery , protection of the environment from transport impacts , road traffic safety , transport-related crime , security , new technologies , and other matters.

Key items of ECMT resolution and EU regulation include the following : ECMT Resolution 2000/11 , on rules governing international freight transport by road ( covering market access , liberalization of certain restricted categories of transport , permit and authorization regimes , social and fiscal provisions , and arrangements for mutual assistance in implementation ) ; EEC No. 3118/93 , on cabotage rights for truck operators ; Council Directive 96/26/EC , allowing mutual recognition of truck and bus driver qualifications ; EEC Nos. 881/92 and 484/2002 , allowing road transport operators licensed in one EU country to operate in others ; EC No. 1172/98 , on the collection of data from trucking companies ; Directive 96/96/EC , requiring trucks and buses to have an annual roadworthiness test ; Directive 2000/30/EC , authorizing enforcement officers to check trucks and buses at the roadside and establishing criteria for removing them from the service ; EEC No. 3820/85 , limiting hours of work for drivers of trucks with gross vehicle weight ( GVW ) of 3.5 ts or more and buses carrying more than nine passengers—updated by Directive

2002/15/EC for implementation in March 2005 ; EEC No. 3821/98 , requiring transport operators to install recording devices to monitor drivers' driving time ( speed and distance ) ; EC No. 484/2002 , on conditions for drivers from non-EU states ; EEC No. 93/704 , concerning the establishment of a database on collisions ; Directive 96/53/EC ( as amended by Directive 2002/7/EC ) , setting out permissible weights and dimensions for trucks over 3.5 ts and buses with more than 9 seats ; Directive 91/439/EEC ( as subsequently amended ) , establishing a model for drivers' licenses , common license categories and minimum ages for drivers of various categories ; Directive 94/55/EC ( as amended ) , on the transport of dangerous goods by road ; and Directive 1999/62/EC , covering vehicle taxes and user charges for goods vehicles of 12 ts gross vehicle weight ( GVW ) or more<sup>[ 2 ]</sup> .

The EU policy emphasis in the early 1990s was to achieve a single market in road freight , road passenger transport , and inland waterways transport. By 2000 , this was felt to have been achieved and the emphasis changed to improving social conditions and enhancing technology and safety while taking into account environmental concerns. For the future , the main priorities are seen as “ directing ” transport markets , developing policies on road user charges ( in the belief that current charges do not reflect the cost of externalities ) , and addressing the transport causes of environmental deterioration. “ Directing ” transport markets is aimed mainly at slowing growth in road and air traffic and promoting the use of more environmentally-friendly alternatives like rail transport—“ regulated competition between modes ”.<sup>[ 3 ]</sup> European policies also recognize a failure to develop and implement effective road-safety regulations.

[ 1 ] Associate members include the US , Canada , and Australia.

[ 2 ] Although individual member states are responsible for levying these taxes and charges , this directive sets broad principles to be followed , including minimum levels for the taxes.

[ 3 ] European Commission White Paper , *European Transport Policy for 2010 : Time to Decide* , 2001.

In a comparison with other countries, Europe's regulatory approach can be characterized as more proactive and interventionist than equivalent regulations in the United States ( US ), Canada, or Australia. Competition is regulated, rather than facilitated. Policy is also more concerned with social and environmental issues than in the US, Canada, and Australia, perhaps reflecting the greater degree of traffic congestion and density of development. EU policies and regulations emphasize safety, but the approach and progress are held back by the need to reach an agreement across a wide variety of jurisdictions. Only recently, Europe has adopted procedures to ensure that truck drivers hold only one driving license. It is still trying to implement common vehicle inspection and on-road enforcement standards and has not yet developed the kind of safety-rating and licensing mechanism for transport operators that is a key feature of safety regulation in North America and Australia ( see below ).

#### 5.4.2 United States

The development and implementation of road transport policies and regulations in the US involve, among others: the Federal Motor Carrier Safety Administration ( FMCSA ), concerned with commercial vehicle safety regulations, the Federal Highway Administration ( FHWA ), concerned with highways and the national highway trust fund [ 4 ], and the National Highway Traffic Safety Administration ( NHTSA ), concerned with safety performance standards for motor vehicles and motor vehicle equipment [ 5 ] all coming under the Department of Transportation ( DOT ); the US Immigration and Naturalization Serv-

ice and US Customs and Border Protection, under the Department of Homeland Security, concerned with cross-border transport issues; and the Environmental Protection Agency, which sets fuel standards and emission limits for truck and bus engines.

Several other public-sector agencies also participate in the policy/regulation debate: the American Association of Motor Vehicle Administrators ( AAMVA ), which develops model programs in motor vehicle administration, police traffic services, and highway safety ( its membership includes all US states and Canadian provinces ); the Transportation Research Board ( TRB ), a branch of the National Academy of Sciences that acts as a clearing house for research and reports to Congress recommending changes to transport policy or regulations; the Commercial Vehicle Safety Alliance ( CVSA ), an organization that proposes policies and practices governing commercial vehicle maintenance and inspection; and the International Registration Plan ( IRP ), to which all US, Canadian, and Mexican states and provinces belong, which handles the pro-rating of vehicle registration taxes among all jurisdictions.

Transport policy and regulation in the US are also influenced by state governments and their agencies. All states have Departments of Transportation, responsible for road transport policies and regulations, enforcement agencies ( state police, special truck/bus inspection officers ), and licensing, taxation and environmental agencies ( for example, the California Air Resources Board ). Many state policies are initially developed in cooperation with other states and the federal government through the joint agencies listed above.

[ 4 ] The Federal Highway Administration is primarily a highway agency. It allocates money from the highway trust fund to the states for highway building, but its responsibilities also include regulations governing vehicle weight and dimensions ( VWD ) limits. Its VWD regulations are an important influence over the structure and characteristics of truck fleets in the US, Canada, and Mexico.

[ 5 ] The National Highway Traffic Safety Administration ( NHTSA ) sets vehicle standards; for trucks and buses, this includes such important things as brake standards, rear-guard standards on trailers, etc.

In addition, in relation to taxation, there is the International Fuel Tax Agreement (IFTA), an agreement between US and Canadian jurisdictions for the uniform collection and distribution of fuel tax revenues. Under this agreement, jurisdictions continue to set their own tax rates according to local and state highway construction and maintenance needs, but notify others of the tax rates to collect.

The federal government has jurisdictional responsibility for trucks and buses operating in interstate commerce. Because many states are relatively small (compared to Canada or Australia, for example), many (perhaps most) commercial trucks and buses in the US fall under federal jurisdiction. Since deregulation in the 1980s, the focus of truck regulatory policy has been on safety matters, resulting in the creation of a separate administration in 2000 within DOT, FMCSA. FMCSA safety regulations apply to operators of trucks with a gross weight of 10,001 pounds (lbs) or more and to buses that carry 15 (lbs) or more (including the driver) if these vehicles are used in interstate commerce. The regulations for which the FMCSA is responsible include

- federal motor carrier safety regulations – FMCSA develops and enforces the most important safety regulations governing most aspects of vehicle condition and driver and carrier performance;
- hazardous materials regulations – i. e., the carriage of dangerous goods;
- commercial driver's license program – FMCSA develops, monitors, and ensures compliance with the commercial driver licensing standards for drivers, carriers and states;
- motor carrier safety identification and information systems – FMCSA maintains and disseminates to the industry public information on the safety performance of carriers which can be used by the states to target unsafe operators;
- new entrant safety assurance process – FMC-

SA ensures that motor carriers entering the business know about federal laws and comply with safety regulations;

- motor carrier safety assistance program – this is a federal grant program providing states with financial assistance to hire staff and implement strategies to enforce safety and hazardous material regulations; and
- performance and registration information systems management – this is a federal-state partnership that makes safe performance a requirement for obtaining and keeping commercial vehicle registration.

While US land transport regulations are under strong federal government leadership, lower levels of government also play a role in policy development. All key agencies that deliver programs (AAMVA, etc.) prepare policy suggestions or research transport matters for the federal government include state representatives in their membership. Also, in the preparation of new policy or regulatory initiatives, the federal government always consults with lower-tier governments. And both levels of government, federal and state, hold extensive consultations with industry (carriers, shippers, etc.).

The states are mainly responsible for traffic safety policy and administration of the roadway system. They determine licensing guidelines, speed limits, laws against drunk driving, highway design and maintenance standards, and the enforcement of rules governing driving behavior. Although federal regulations on truck size and weight are of most importance, state regulations governing intrastate trucks are also important. In many cases, states allow trucks longer or heavier than the federal limits, sometimes only on state roads and sometimes on state and interstate (federally-funded) roads.

A further influence on road transport policies and regulations is the 1995 North America Free Trade Agreement (NAFTA). NAFTA requires the US, Cana-

da , and Mexico to harmonize their transport regulations. All three participate in a forum ( the Land Transportation Standards Sub-Committee ) to do this , though it has had mixed success so far.

Lastly , the development of policies and regulations in the US is always done in the context of a great deal of research ( e.g. , studies by federal and state agencies ; research by the academic community ; research by agencies like the General Accounting Office ; and studies carried out by the Transportation Research Board ( TRB ) , as mandated by Congress ).

In comparing the US regulatory approach with that of other countries , the following is notable. To a greater extent than Europe , Canada , or Australia , the regulatory structure depends on initiatives by the “ senior ” agencies at the federal level of government. Notwithstanding this , the process of deciding policies and regulations receives inputs from a wide range of involved parties both within and outside government. And the US has developed strong and sophisticated safety regulations , based on the initiatives of specialist agencies and on the link between the safety performance ( and compliance with safety regulations ) of operators and the right to operate a commercial vehicle.

### 5.4.3 Canada

The following agencies are involved in developing and implementing road transport policies and regulations in Canada

- Transport Canada administers the Motor Vehicle Transport Act ( which delegates aspects of control over extra-provincial transport operators to the provinces ) ,<sup>[ 6 ]</sup> the Motor Vehicle Safety Act ( which gives the federal government author-

ity to regulate vehicle standards and the Transportation of Dangerous Goods Act ;

- Council of Ministers Responsible for Transportation and Highway Safety , which considers major policy issues before new legislation is passed or new regulations are promulgated under existing legislation
- Council of Deputy Ministers Responsible for Transportation and Highway Safety – this body of senior officials serves under the Council of Ministers ; in addition to a general responsibility for transport policy and regulation and the technical advice it gives to ministers , it is responsible for the joint federal , provincial , and industry task force handling all aspects of vehicle weight and dimensions ( VWD ) limits ;
- Canadian Council of Motor Transport Administrators ( CCMTA ) , a group of federal and provincial officials responsible for aspects of road transport regulation including vehicle licensing , driver licensing , and safety regulations ; it is similar to the AAMVA in the US ;
- Transportation Association of Canada ( TAC ) , consisting of government and nongovernment members working in various committees to develop transport policies , mostly in relation to roads ( design standards , traffic ) but also road/traffic safety , environmental matters and ( sometimes ) road taxation
- CVSA , a joint consultative organization involving all 13 provinces and territories as well as all US states and Mexico ;
- IRP mentioned earlier in relation to the US ;
- Customs and Immigration , the federal depart-

[ 6 ] Under this act , the federal government regulates drivers' hours of work and a new requirement that licensed road transport operators have a safety fitness certificate. Typically , provinces adopt parallel regulations so that the regulation of extra-provincial and intraprovincial road transport operators is uniform. The federal government also influences land transport regulations through its responsibility for cross-border movements.

ment controlling cabotage ( Canada and the US have harmonized rules ) ;

- a number of other federal departments , including Environment Canada , which sets emission limits for truck engines and the related standards for diesel fuel ; and
- provincial agencies – each province has its own structure for developing and administering road transport policy and regulations ; most are also represented in the Council of Ministers , the Council of Deputy Ministers , CCMTA , TAC , CVSA , and IRP as described above.

In Canada , however , the provinces are responsible for implementing and enforcing most truck and bus regulations determined by the federal Government. The constitution gives the federal government responsibility for extra-provincial matters-including , for example , the operations of any transport company that has services extending beyond a provincial/territorial border. But since 1954 this federal responsibility has been delegated to the provinces under the Motor Vehicle Transport Act. This is not without conditions. The provinces must have in place a system for issuing safety fitness certificates to extra-provincial motor carriers , for example , without which a motor carrier cannot operate. Except for things such as new vehicle standards , emission controls and international transport , regulatory responsibility for almost all other matters in Canada rests with the provinces.

In terms of economic regulation—controls on market access and rates—road freight transport in Canada has been deregulated for some time. There have been attempts to deregulate the road passenger transport industry across Canada but , to date , they have not been successful. Bus transport is regulated in varying degrees within each province.

Although the road freight transport market is deregulated , operators ( this applies to buses too ) must obtain an “ operating authority. [ 7 ] Under federal law , the safety fitness certificate can be considered equivalent to the operating authority. It confers the right to operate a commercial vehicle , whether truck or bus , subject to a satisfactory safety record.

Other important features of road transport regulations in Canada are

- VWD regulations – Each province used to develop its own regulations ( the federal government has no jurisdiction in this area ) , but in 1988 the provinces agreed to adopt minimum standards applicable to all main roads in Canada. There is also a permanent task force that keeps these regulations under constant review.
- National Safety Code ( NSC ) – As the trucking industry was deregulated , starting in the 1970s , there was a major effort to revise and strengthen safety regulations. The result was the adoption by all provinces of the NSC in 1987. This now consists of 15 standards covering everything from driver licensing , carrier ( operator ) profiles maintained for enforcement purposes by the provinces , maintenance and inspection requirements and standards , procedures for compliance audits of carriers , hours-of-service standards and the process by which motor carriers are given a safety rating. In this case ( unlike VWD ) the federal government played a key role in developing the NSC , but implementation for the most part is still a provincial matter.

Special inquiries on matters of policy or regulation are often used in Canada. These typically hold hearings , conduct research , and produce reports with recommendations that governments can implement or

---

[ 7 ] The term varies between provinces. In some provinces , the idea of making an operating authority the same as a vehicle registration is being considered.

not as they see fit. An example is the Canada Transportation Act Review Panel which made a wide range of recommendations on transport policy in 2001.[ 8 ]

In terms of comparisons with other countries , the key features of the Canadian model are :

- multi-jurisdictional agencies – more so than in most countries ,Canada’s system depends on cooperation among jurisdictions on policies , regulations , standards , procedures , etc. ; the political body ( Council of Ministers ) and its civil-servant equivalent ( Council of Deputy Ministers ) give all governments ( federal , provincial , territorial ) an equal voice in developing policy ;
- interjurisdictional agreements – much of Canadian road transport regulation has been developed through agreements ( MOUs ) among jurisdictions , such as for VWD limits and the safety regulations in the NSC ;
- federal role – the federal role in road transport is relatively weak ,compared with the US ;it also has only a limited role in highway construction , management , and funding. A long-standing debate has been on whether or not the federal government should take a leading role in road transport regulation to achieve greater uniformity across the country ; some , citing the US DOT and FMCSA as examples , claim it would be easier to have just one government to deal with ; others argue for a consensus model among provinces that agrees minimum standards but allows for regional differences ;
- harmonization among NAFTA countries – much of Canada’s road transport regulation

has been harmonized with the US and Mexico under NAFTA ,through joint development with the US ( e. g. , load security , drivers’ working hours ) , mutual recognition of markings ( e.g. , hazardous materials ) , or coordination on joint committees like AAM-VA , IRP , CVSA , and others ;and

- safety fitness – the experience with trucking deregulation has convinced Canada that , in an unregulated market , there must be a means of getting unsafe operators off the roads ;the mechanism chosen is the safety fitness certificate and an elaborate procedure used to monitor the safety fitness of individual operators.

#### 5.4.4 Australia

Australia develops national road transport policies and regulations through the Australian Transport Council ( ATC )<sup>9</sup> ( previously the Australian Transport Advisory Council or [ ATAC ] ) , a political body supported by a standing committee on transport ( SCOT ) and with research-based advice provided by a National Transport Commission ( NTC ).

Powers over road transport are exercised by the states , not the national ( Commonwealth ) Government. Before 1991 , efforts to coordinate road transport regulation among the states were made by the ATAC ,but the process was advisory and relied on implementation by the states. By the early 1990s , the division of powers under Australia’s federal system was seen as impeding economic efficiency. There were significant differences between states over matters like VWD standards , permissible driving hours ,

[ 8 ] Canada Transport Act Review Panel 2001 Vision and Balance.

[ 9 ] Members of the Australian Transport Council ( ATC ) represent the Australian federal government , the Australian states and territories , New Zealand , and Papua New Guinea.

and road cost recovery from users.<sup>[10]</sup> As a result , the National Road Transport Commission ( NRTC )—the forerunner of NTC—was established in 1993. This had broad regulatory responsibility over heavy vehicles ( trucks and buses with gross mass over 4.5 ts ) and a specific responsibility to develop policies on taxes for these vehicles.

NRTC developed policies governing , among others , hours-of-work rules for drivers , VWD limits , new vehicle standards , in-use vehicle standards ( i. e. , vehicle conditions when on the road ) , traffic codes , the carriage of dangerous goods , compliance and enforcement issues , and vehicle taxation. Originally , it was intended that legislation would be drafted by the commission , enacted by the Commonwealth on behalf of the Australian Capital Territory , and then used in the states as a template for their own laws. In 2002 , Australia conducted a review of the NRTC and , as a result , established NTC in 2004 , covering all intermodal surface transport , not just road transport.

NRTC had proved effective in jointly developing vehicle noise and emission standards with environmental regulators. It provided a forum for effective exchange of ideas and information between road authorities , and between road authorities and related agencies. By 2002 , it had completed much of its initial agenda and had begun to develop more innovative approaches to the regulation of road transport by drawing on developments in other regulatory spheres ( e. g. , performance-based standards , compliance and enforcement , alignment of road transport , and occupational health and safety ). This suggested a useful role for an agency freed from line responsibilities and able to concentrate on broader policy issues , with outputs in the form of model legislation. In road transport , NTC carries responsibilities for safety reforms ( national road rules , vehicle standards ,

truck and bus driving hours , arrangements for transport of dangerous goods , and driver licensing arrangements ) ; efficiency reforms ( uniform mass limits , uniform national heavy vehicle charges , national standards for restricted access vehicles , and a national registration scheme ) ; reforms focused on compliance ( chain-of-responsibility legislation , vehicle accreditation systems and outcome-focused sanctions , penalties , and enforcement rules ) ; and environmental reforms ( lower vehicle emission standards , cleaner fuel standards with lower sulfur content , and lower noise standards ).

Like Canada , Australia uses formal inquiries—that is , studies commissioned by government into aspects of policy or regulation. Recommendations do not necessarily result in policy or regulatory change but over the longer term they influence policy thinking.

In summary , the key features of the Australian approach to transport policy and regulation are as follows :

- because of the division of powers between federal and state governments , joint bodies have been established to help harmonize policies and regulations ; in NTC , Australia has established an agency that makes policy recommendations and drafts legislations that are passed on to the political level ( ATC ) where there is a legislative requirement that the advice is subject to a vote ;
- Australia has gone further than most in combining multiple aspects of road transport regulation and road user taxation ( user charges ) within one agency ( NTC ) ;
- Australia has combined policy formulation and regulation for road transport with rail ( and intermodal ) transport within one agency ( NTC ) ; and

[ 10 ] See Moore , B. , and K. McIntyre Road Transport Reform in a Federal System—A Reflection on Ten Years in the Process , 25th Australian Transport Research Forum , Canberra , 2002.

- Australia has also found that it had to strengthen its safety-related regulations in a deregulated market. Some of the most recent changes, such as the chain-of-responsibility concept in the 2004 *Road Transport Reform ( Compliance and Enforcement ) Bill* and the concept of a national accreditation system ( which allows for safety auditing of individual companies ) mirror concepts seen in the US and Canada under their safety-rating mechanisms.

#### 5.4.5 Lessons for the People's Republic of China

What can the People's Republic of China learn from these overseas approaches to road freight transport regulation ?

- The role of markets – The EU , North America , and Australia have all found that competition is the best means of ensuring an efficient transport system , though the EU continues to impose controls in pursuit of social and environmental goals ; all recognize the need to set user charges to recover costs , including the cost of externalities ( pollution , noise , congestion , etc. ).
- safety regulations – All have found that as truck and bus markets are liberalized there is an increased need for stronger safety regulations and enforcement. The PRC needs both to strengthen its safety and environmental enforcement mechanisms and to develop a system of incentives that would reduce the benefits of noncompliance.
- environmental protection – All have found it necessary to develop environmental-impact regulations specifically for the road transport industry ( mainly governing emissions and the transport of hazardous materials ). The PRC has insufficient linkage between its environmental standards and the performance of vehicles on the road.
- safety ratings – The US , Canada , and Australia have found that , in addition to safety regulations requiring or prohibiting certain behavior ( e.g. , maintaining log books or preventing speeding ) , it is necessary to have a mechanism to assess the safety fitness of carriers ; they have tied the right to register and operate a commercial truck or bus with a satisfactory safety ( performance ) rating. There is much the PRC can learn from this approach ; most importantly , it places responsibility for safety performance primarily on the operator.
- research support for policy decision-making – All four regions make extensive use of research in the policy-making process , whether done within government , by independent agencies or by industry bodies. MOC's decision-making would benefit from a broader policy research basis , rather than relying on studies commissioned only from its own research institutes.
- links between regulatory areas – Practices differ between regions , but there is often an attempt to bring together related concerns ( e.g. , agencies concerned with taxation , building roads , enforcing laws , protecting the environment , etc. ) when developing policy or regulation. In Australia's case these are brought together , for the most part , in a single agency , NTC. In others , representatives from different agencies are brought together when issues are investigated. MOC should consider establishing interministerial committees to address areas of common concern , and should develop ways to work more effectively both with industry and with agencies like the National Development and Reform Corporation ( NDRC ).

## 5.5 International Lessons for the People's Republic of China : Passenger Transport

The requirements for a regulatory system for road passenger transport in the PRC are broadly similar to those for freight as far as quality regulation is concerned , but there are significant differences with regard to quantity regulation. To a large extent , market forces will ensure that the supply of freight transport tends to equate to demand. But market forces alone do not result in a passenger transport system that effectively meets demand. This has been proven , particularly in urban areas , in countries throughout the world , both developed and developing.

Various regulatory systems have been adopted in different parts of the world , and at different times. There has been a general tendency worldwide to reduce the level of government intervention in the provision of passenger transport , but some systems have been more successful than others. Lessons can be learned from their experience.

In many respects , however , the PRC is unique and its requirements for a passenger transport system might argue for a unique regulatory model. In terms of population and size , it is one of the biggest countries in the world. It has the fastest-growing economy. It has a highly developed administrative system. And the pace of change is far greater than in most other countries. The transport system must be capable not only of meeting current requirements , but of adapting continuously to changes in them. In particular , while it has many of the features of developed western countries , a significant difference in the transport context is the much lower level of car ownership. For several decades , demand for transport by bus has been declining in North America , Europe , and Australia as car ownership has increased. As a result , many bus services in those countries are not

financially viable , and are subsidized , often to a considerable extent. Although car ownership in the PRC is increasing at a very rapid rate , the number of cars per head of population is much lower than in the western countries. Demand for bus services is high , and is likely to rise further with increasing economic activity. Salaries and wages are such that , given the high level of demand , most passengers are able to pay fares which cover the full costs of operation , so that the requirement for subsidized services is low or negligible , except possibly in the more remote rural areas , and the operation of bus services is potentially more attractive commercially than in most western countries.

### 5.5.1 Southeast Asian Countries

Countries comparable with the PRC are the larger countries in Southeast Asia , such as Indonesia , Philippines , Malaysia , and Thailand , where demand is high and incomes sufficient to make economic bus fares affordable , particularly on long-distance services. In the Indian subcontinent , where incomes are lower , many bus services are subsidized , or of poor standard , and often both. In most African countries , incomes are so low that few bus services are commercially viable , and the number of conventional buses has been declining. Several African countries provide examples of the serious consequences of inappropriate regulatory systems , including the elimination of conventional operators of large buses and their replacement with inappropriate small vehicles run by informal operators.

The regulatory systems in Southeast Asian countries are broadly similar in most respects , with some differences in detail. Services are generally subject to route licensing procedures ; routes and fares are normally set by the regulatory authorities ; and buses are usually restricted to operating on the route for which they are all licensed , as in the PRC. Bus stations and

terminals are also subject to varying degrees of regulation. In terms of the level of service provided, however, there is, in practice, little or no regulation. There is usually no effective limit on the number of vehicles permitted to operate on any route; nor is there any effective means of ensuring that services are provided on routes with relatively low demand, even if these could support economically viable services. Bus operators tend to apply for licenses to operate on the routes they think are the most profitable, usually based on inadequate information, resulting in excess supply on those routes and inadequate or nonexistent services elsewhere. The system commonly used whereby buses do not follow schedules but wait at terminals until they are full means that even if there is an excess of vehicles on a route, there may still be insufficient capacity in terms of the service provided, since at any one time a high proportion of buses stand idle at the terminals. Where services follow schedules, these are usually determined by the regulatory authorities and do not allow bus operators to utilize their vehicles efficiently.

For urban services, particularly in the larger cities, various forms of franchising have been adopted but, for various reasons including ineffective administration on the part of the authorities, these do not achieve the best results in most cases.

### 5.5.2 Europe, North America, and Australia

Although there are major differences in circumstances between the PRC and western countries, as mentioned above, there are several lessons which may be learned from these countries in terms of the regulation of road passenger transport. Some are negative. There has been a move toward deregulation in most industrial sectors in western countries, and bus systems are deregulated in the sense that a bus operator, provided he meets specified standards of safety and competence, may operate on any route

he wishes and charge whatever fares he wishes.

There are exceptions, particularly in large urban areas and rural areas, where services are usually subsidized and operated under various forms of contract or franchise arrangement. In several cities in the United Kingdom (UK) there is a mix of subsidized services, which (as contracted services) are in effect regulated, and commercially viable ones, which are not subject to regulation. Interurban and long-distance bus services, which are capable of being operated on a commercial basis, are virtually unregulated in all western countries.

London is a typical example of the way urban bus services are regulated. All services, whether or not they are profitable, are operated under a franchise or contract system. The authority (Transport for London or TfL) determines routes and schedules. Each route is contracted (typically for a period of 5 years) to one operator, allocated on the basis of a bidding procedure. Outside London, all bus services that can operate commercially are subject only to quality regulation, but otherwise have been fully deregulated since 1986.

Although bus operators in the UK are free to decide on which routes they operate, and their schedules and fares, they must register full details of all their services with the licensing authority and must give a minimum of 8 weeks' notice of any planned changes, which provides a degree of stability.

Some lessons can be learned from the deregulation of bus services in the UK during the 1980s. There was a common tendency for additional buses to be deployed by newcomers on profitable routes which were already adequately served, competing with the incumbent operator. This resulted in increased total vehicle-kms, but a smaller, sometimes negligible, proportionate increase in passenger-kms. The profits of the incumbent operator were reduced, while those of the newcomer, whose buses had been transferred from less profitable routes, were in-

creased, but usually by a smaller amount than the reduction in profits for the incumbent. In most cases, the overall result was a net disbenefit for both bus operators and users.

This situation led to a number of cases where existing operators were driven to insolvency by those engaging in such predatory tactics as swamping routes with buses, deliberate obstruction of buses at stops, the provision of services at unsustainable fares or even free of charge until the existing operator was forced to withdraw, and incentives for staff to transfer from the incumbent to the predator. Although such activities were subsequently ruled illegal by the Office of Fair Trading, the damage in most cases was already done, and the penalties imposed on the new operator were virtually ineffective.

Deregulation in the UK led initially to instability and fragmentation of route networks, and the withdrawal of services at unprofitable times or on unprofitable routes, particularly in rural areas, and significant

variations in service quality. On the positive side, it led to innovation, new types of service, increased levels of service on busy routes, and better-quality services on some.<sup>[11]</sup>

### 5.5.3 Models Appropriate to the People's Republic of China

None of the regulatory systems for bus passenger transport in western countries or other Asian countries has been fully successful in achieving their main aim of providing efficient and affordable public transport services in all areas. None would be appropriate for adoption in the PRC. There are, however, lessons to be learned, and there are elements of the various systems which may be adapted to meet the PRC's particular requirements. The regulatory changes that result from these are discussed in Chapter 7.

[11] Iles, R., *Public Transport in Developing Countries*, Elsevier, Oxford 2005.

