

Competition Issues in the Road Goods Transport Industry in India with special reference to The Mumbai Metropolitan Region



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PREFACE

The road transport mode serves as one of the key factors in the developmental process of any economy. While historically, the railways have played a dominant role in the overall transport system of many countries, the road transport mode has, over a period of time, come to occupy a pivotal role by virtue of certain inherent advantages. Over the past few decades, the share of road transport in the total surface traffic movement in India has been gradually increasing with a distinct shift away from the railways being observed. Most recent estimates give the road mode a share of nearly 63 per cent in freight movement compared to its share of just about 10 per cent in the early fifties. According to these estimates, this percentage share is likely to stabilize around 85 per cent.

Given this emerging significant role, many issues have been raised in the context of road freight movements, which apart from many others relate to efficiency of operations, the competitiveness of the market, etc. Given the huge number of suppliers and the apparent ease of entry into the sector, it was widely believed that the market was very nearly competitive. However, it has been an emerging feeling that the organisation of the structure of the industry as well as some unimaginative policy measures and tardy implementation of even the limited but fairly well designed regulatory measures have resulted in inefficient provision of services which when viewed in the context of a liberalized and globalised framework of economic activities affects competitiveness. It is against this background that an attempt has been made, in this study, to examine and understand the nature of competitiveness in the road goods transport industry in India.

The study has been undertaken at the instance of the Competition Commission of India. We gratefully acknowledge the opportunity given to us by the Commission. We are particularly thankful to Shri. Vinod Dhall, Member, Shri. Amitabh Kumar, Director-General, Shri. G.R. Bhatia, (then) Additional Director-General of the Commission and to Dr. Vijay Kelkar, Chairman, Advisory Committee on Research and Market Studies and Members of the Advisory Committee specially Prof. K.L. Krishna, Prof. U. Sankar, Prof. V.R. Panchmukhi, Prof. N.L. Mitra, Dr. Urjit Patel for initiating us into the study and for very useful comments and suggestions during the course of the study. Thanks are also due to Shri. Augustine Peter, Economic Advisor, Commdt. M.M. Sharma, Addl. Registrar, Shri. Anil Kumar, Asst. Director and other officials of the Competition Commission for the encouragement and support during the course of the study. We are also thankful to Shri. Srinivas of the Monopolies and Restrictive Trade Practices Commission, New Delhi for making available material on case laws in the Indian context. We are grateful to all the persons whom we met in connection with the study- the truck operators, the brokers, the booking agents, financiers and Trucking Association officials for the help rendered in regard to our surveys and other information relating to the industry. We would also like to acknowledge the inputs received at the Workshop organised by the Competition Commission of India along with the World Bank and DFID in Delhi in March 2006 and also at the National Conference on the State of Competition in the Indian Economy organised by the Commission along with the World Bank, the DFID and the FIAS in March 2007. The insights gained from the discussions at the Workshop and the

Conference and those following presentations of the Draft and Final Reports of the Study before the Commission's Advisory Committee on Research and Market Studies have been useful in many ways in guiding us in unearthing some of the intricacies and complexities of trucking operations in India. The Final Report (Revised) submitted to the Commission in September 2006 has been edited for publication by the Commission.

My colleagues at the Department of Economics, University of Mumbai have been kind enough to provide some very useful inputs at the time of conceptualization of the study and during the course of the study. We take this opportunity to express our gratitude to them. The work put in by my students Anand, Manisha (who are now researchers on their own right but were kind enough to put efforts into the study) and Vidya (who is still an infant researcher but one who is learning fast) has been most effective. I would take this opportunity to apologise for the delay in submitting this Report, which was due to additional commitments to the University by way of Directorship of a Management Institute (between June 2005 and April 2006) with attendant responsibilities on numerous high level Committees of the University and other Institutions. Despite more than a decade of active interaction with the trucking industry, there have been a lot of new lessons learnt. For a teacher and researcher like me, the learning goes on.

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ABBREVIATIONS

ACCC	Australian Competition and Consumer Commission
AITD	Asian Institute of Transport Development
AMH	Association of Malaysian Hauliers
AP	Andhra Pradesh
BGTA	Bombay Goods Transport Association
BRS	British Road Services
BTC	British Transport Commission
BTKM	Billions Tonne Kilometers
CHAM	Containers Hauliers Association of Malaysia
CIRT	Central Institute for Road Transport
CONCOR	Container Corporation of India
CVLB	Commercial Vehicle Licensing Board
DGIR	Director General of Investigation and Registration
FTC	Federal Trade Commission
FTL	Full Truck Load
GDP	Gross Domestic Product
GOI	Government of India
GVW	Gross Vehicle Weight
HGV	Heavy Goods Vehicle
ICC	Interstate Commerce Commission
IHM&W	Indiana Household Movers and Warehousemen, Inc.
IRHA	Irish Road Haulage Association
ITS	Intelligent Transport Systems
JNPT	Jawaharlal Nehru Port Trust
KFTC	Korean Fair Trade Commission
LTL	Less than Truck Load
MET	Ministry of Entrepreneur Development
MIDC	Maharashtra Industrial Development Corporation
MMRDA	Mumbai Metropolitan Region Development Authority
MOT	Ministry of Transport
MOW	Ministry of Works
MRFTA	Monopoly Regulation and Fair Trade Act
M RTP	Monopolies and Restrictive Trade Practices
M RTPC	Monopolies and Restrictive Trade Practices Commission
MV (Act)	Motor Vehicles Act
NAFTA	North Atlantic Free Trade Association

NCA	Norwegian Competition Authority
NCAER	National Council of Applied Economic Research
OECD	Organisation for Economic Co-operation and Development
PCU	Passenger Car Unit
RGTI	Road Goods Transport Industry
RHE	Road Haulage Executive
RTA	Regional Transport Authority
RTO	Regional Transport Office
RTP	Restrictive Trade Practices
SRTOs	Small Road Transport Operators
STA	State Transport Authority
STB	Surface Transportation Board
TCI	Transport Corporation of India
T.I.R.	Transport International Routier
TL	Truck Load
TPA	Trade Practices Act
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
US	United States

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Executive Summary

1. Introduction

Though emerging as a dominant mode the road goods transport sector in India has, it is observed, hardly been able to emerge out of the traditional unorganized framework over a period of time. It has been a widespread feeling that the market structure of the industry in terms of the supply of services is very highly competitive. Given the dominance of small operators, it is natural to expect a competitive regime to prevail. However, given the segmentation of the industry in terms of market players and market makers, it has been an emerging feeling that this is a sector, which is prone to be dominated by some of the players and makers. In the case of specialized traffic like movement of petroleum products, routine contractual traffic (big ones), it is most likely that there is absence of competition – in a market – where single buyers are faced with number of sellers of services. This argument can perhaps be extended to manufactured items like chemicals, pharmaceuticals, which are supplied in bulk all over the country. Even in the case of general freight where the small operators dominate (in terms of numbers), it is recognised that the role of the middlemen is crucial in price fixation as well as in allocation of quantum of movement as far as the small operators are concerned. In other words, it has been an evolving feeling that a significant part of the sector may not be really operating within a competitive market structure as is normally thought out to be. It is against this background that we felt the need for a detailed study on possible anticompetitive practices in the RGTI in India. This study was taken up at the instance of the Competition Commission of India which provided the financial support.

2. Insights from Literature

Deregulation in the transport sector has taken place in many countries in the past two decades or so. From a review of literature at the international level, it has been observed that the effects of deregulation have depended on the extent to which the industry was regulated earlier. However, broadly the effects have been as follows:

- The capacity available for common use has increased significantly with increasing dominance by highly competitive small operators
- Rates have fallen considerably as a result of more capacity and introduction of better technological features
- Falling rates have benefited customers but with costs not reducing to such an extent, profit levels have fallen though operators offering higher levels of service have achieved higher profit levels.

The roads goods transport industry in India has never been regulated the way it has been in many other countries. But a regulatory framework in the form of the MV Act has been in place since 1939. However, an effective regulatory framework has, according to popular opinion, never been attempted to be put in place. This has emerged over the years as a major external impediment (in terms of a number of dimensions) to the effective growth of the trucking industry in India. A survey of the literature related to the trucking sector in India put our study in the proper perspective. The study team believed that it needed to fill certain gaps. First of all, it was pertinent to take a critical look at the supply chain related to trucking, in the sense of who actually determined the price of trucking services and more specifically, the role of the operators and other intermediaries in determination of the price. The basic objective was to examine the possibility of price fixation at levels not really reflecting competitive benchmark rates. Thus, a related objective was to take a look at various costs related to operations and the returns derived thereby. Given the state of the market and knowledge of the cost structure, it was possible to make conjectures related to breaking even, earning of positive or negative economic profit, the rationale for overloading, and so forth. However, this required some understanding of policy and regulatory elements, which would ultimately have an impact on fixation of tariffs and costs thereby affecting operations.

3. Analysis of Freight Rates and Operating Costs

The objective behind this analysis was to look at the trend in movement – in terms of increase or decrease in freight rates and then examine profitability of operators. One point of view that has emerged over a period of time is that there has been only a gradual

(though some what consistent) increase in freight rates in India due to the entry of a large number of operators. With increasing fuel costs, it is claimed that profitability has decreased considerably with many operators just able to break-even. According to the operators, the profitability of truck operations is said to have been adversely impacted due to increasing average operating cost (mostly fuel) and falling or flat freight rates. Given a basic analytical model, an attempt has been made to examine the profitability of operations for average freight rates on the **different routes**. From simulation exercises, it was estimated that only at much higher level of movements, operations would be profitable. Given the pressures on margins, it is very clear that it is only with a certain level of overloading that operations turn out to be viable. This is a wide spread practice with axle loads well in excess of the legal limit – a practice aided significantly by laxity of enforcement of axle load controls by the concerned regulatory authorities in different States.

4. The Industry – Its Structure, Market Surveys and Analysis

From the different supply chain models that were considered one could say that the market appears to be segmented on various basis, say as per area of operation, as per routes, i.e. operators as well as booking and commission agents seem to have certain preferred routes. The preference for the area of operation is in general based on familiarity with the route, contacts on that route, infrastructure required, which in turn reduces associated risks. Historically, this kind of market segmentation seems to have led to more powers in the hands of intermediaries as the information flow was normally accessible to the intermediaries only. Therefore, in the past, these intermediaries have enjoyed higher margins and have been in such a position so as to exploit the market situation in their favour. However, over a period of time, the entry of a large number of players, both operators and intermediaries, is ensuring that the structure is driven by market forces. Given the dominance of small operators and the user requirements in terms of reliable haulage, loss protection, the role of the intermediaries is substantial and proving to be useful to both from demand and supply perspectives. Though, there could be situations wherein these intermediaries seem to be colluding with each other in fixing freight rate as well as the conditions and terms of freight movement, the existence of a

large number of these intermediaries especially in the significant sections of the overall movement reveals an overwhelming tendency towards a market determined revenue sharing arrangement. The Mumbai market reflects this scenario to a very large extent. However, concerns that have been raised regarding cartelisation practices in local movements and bid rigging practices in the context of attempts to aim at competition for the market by way of tenders and open bid procedures, need to be looked into and such practices removed/ curbed.

5. Effects of Policy and Regulatory Regimes on Competitiveness of the Industry

Several Committees and Study reports have, in the past, pointed out the implications of several policy and regulatory regimes on the efficiency and viability of operations of the trucking sector and thereby its competitiveness in the Indian context. The present study also points out the deleterious effects of the taxation regime (vehicle and operation related as also commodity related) on costs of operations. Further, it also points out to a number of problems resulting from the regulatory regime especially smooth flow of movements due to barriers there by affecting efficiency of operations and competitiveness.

6. Competition Advocacy Measures and Initiatives

- i) In the context of local operations, the Regional Transport Authority (RTA) can be requested to provide parking spaces where operators could be located and also to notify (based on discussions with the operators and users) a price band within which the operators could compete until such time that the market has effective competition. **Thus, the State Governments through the RTA could eliminate price fixation practices in local movements.**
- ii) It is necessary that the Central and State Governments and other public sector bodies enhance the efficiency and competitiveness of competitive tendering through more careful attention to the tendering process. **Given that there is provision for action against bid rigging or collusive rigging in the Competition Act, 2002, the Commission's advocacy role would be to impress upon Governments for an active oversight of the competitive**

tendering process to ensure sustainability of competition failing which active competition enforcement would be resorted to by the agency.

- iii) **An effective public sector role (Central and State) can be in facilitating applications and adaptability of information technology and Intelligent Transport Systems (ITS) to all aspects of trucking operations so that information asymmetries which continue to plague profitable operations can be minimised if not eliminated.**
- iv) State legislation providing for cooperative efforts already exists. What are required are some efforts on the part of the respective State Governments to encourage operators based in the State to get down to formation of such cooperative units of operators. **The Commission can actively promote this idea with the State Governments as an advocacy measure.**
- v) **The Commission, in its advocacy initiative, must lay particular emphasis on the emergence of a mechanism for a competitive price regime in the market for container movement by rail and also point out the need for a fair allocation of services in terms of access between the players (the multimodal operators) in the market.**
- vi) **As an advocacy measure, the Commission needs to point out the anomalies resulting from Customs' bonding requirements in the context of truck container movement from the ports which need to be removed to provide a level playing field to the trucking sector.**
- vii) **Service quality of trucking services is poor – which does not augur well for our domestic as well as our international expansion efforts in terms of competitiveness of the economy. Advocacy should cover the quality aspect of the trucking service (industry) also in terms of requiring proper enforcement of standards provided by the MV Act.**
- viii) **The relevant provisions relating to fixation of minimum and maximum rates contained in Section 67 (1) and Section 79 (2) (iv) are redundant and should be dropped from the Act. This is to ensure that there is no more clamor for minimum rates under the existing regulatory framework.**

- ix) **As an advocacy measure, Governments need to be advised on the issue of the current perverse system of financial incentives such as high tax rates and tolls on multi axle vehicles so as to ensure a tax regime that results in more efficient use of trucking and road capacity. This is especially important in the context of our competitiveness in international markets.**
- x) **The Commission, as an advocacy measure, should advise the Central Government to initiate a review into the requirements for an efficient and sustainable nation freight transport system (encompassing all freight transport modes). Taking into account reforms to date and also the various detailed studies undertaken in this regard, the review should map out what is required to:**
- **Achieve competitive neutrality across all transport modes;**
 - **Address barriers to competition and efficiency in individual modes;**
and
 - **Enhance interfaces between modes.**

This is an important advocacy measure which could ultimately result in policies which can help ensure that the mix of transport modes reflects the intrinsic efficiency of the different modes compared to current Government policies and regulations that favored one mode to other.

- xi) **With an economy dominated by roads and road transport, it is increasingly important that truckers have much the same right as the railways to travel interstate with a minimum of delays. Legal and administrative reforms are needed in this area are needed for India to function effectively as a single market. As a measure of competition advocacy, the Commission needs to emphasize the importance of elimination of regulatory and physical barriers which can pave the way for a seamless national (single) market to begin with. The State Governments should be encouraged to carry out competition audit of existing regulations especially those providing for the present system of checkpoints administered by the States and involve a number of agencies (which involve restrictions on flow of commodities, the fiscal regime, etc) to determine the need for their continuation.**

SECTION 1

Introduction

Background

The Road Goods Transport Industry (RGTI) (the terms RGTI/ trucking industry/trucking sector have been used interchangeably in the report) has played a pivotal role in trade and commerce in India especially in the past few decades. Its rising share in relation to the railways is an indication of its popularity. A recent study (Deloitte, 2003) observed that the share of the road made in total freight movement has been increasing over the past 3 decades – the share having been estimated to have increased from 34.5 per cent in 1970-71 to around 63 per cent in 2001-02. During the period 1991-92 to 1998-99, road freight is supposed to have grown at a compounded annual growth rate of 11.9 per cent while rail freight movement grew only at about 1.5 per cent. However, in the past few years, the shift to road transport has been slower with the road share having only increased gradually from 59 per cent in 1995-96 to 63 per cent in 2001-02- indicating a slowdown in the growth of road transport market share over the rail share. However, it is expected that this share would go up, albeit gradually, to stabilize around 85 per cent.

Though emerging as a dominant mode, the industry has not been able to emerge out of the traditional unorganized framework, being as it is (still) dispersed in terms of a large number of small operators. In other words, the dominant feature even today is that a significant part of the vehicle fleet is under Small Road Transport Operators (SRTOs). According to a study conducted in the late 1990s (AITD, 1999), almost 77 per cent of the fleet was under operators who owned up to a maximum of 5 trucks while about 10 per cent was under those who owned between 6 to 10 trucks. Further, 4 per cent were under those owning 11 and 15 vehicles while 3 per cent belonged to truckers with 16 to 20 trucks. Only about 6 per cent of the vehicles were with operators owning more than 20 trucks. The situation has apparently changed when we compare the situation in the late

1980s when it was claimed that 95 per cent of the vehicles belonged to those operators who had less than 5 vehicles (UN Mission, 1993).

The large number of operators constituting a fairly large unorganized proportion of the trucking industry (in terms of supply) has traditionally been the result of lower capital requirements, ease of obtaining truck driving licenses and permits, low mental skills as compared to physical abilities and easy availability of freight. The organised component of the industry consisting of the fleet operators is small in number and has a fleet with varying payloads. The fleet is primarily used for general goods transportation with the operators working on the basis of a hub and spoke distribution model.

The unique ownership profile in the industry has created middlemen who act as liaison agents for small trucking operators who do not have the geographical reach to tap business on a continuous basis and hence are forced to rely on these middlemen. With transportation companies (big fleet operators) gradually moving from an asset based to a non-asset based model, it is widely recognized that dependence of small fleet operators and small operators on brokers is expected continue to have an impact on the physical as well as the financial performance of these operators.

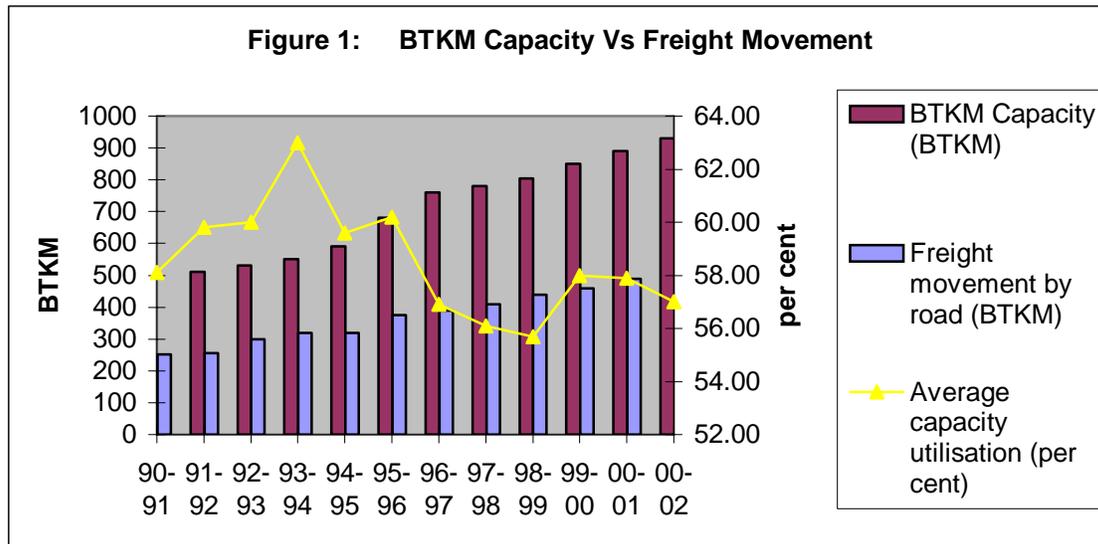
Profitability of truck operations depends on the following factors:

- a) Capacity Utilisation
- b) Number of trips made
- c) Fuel Prices
- d) Other Operating Costs

In order to maximize their profitability, truck operators can:

1. Increase their revenue by overloading the vehicles, in general, and
2. Maintain a suitable vehicle mix according to payload capacity of the vehicles based on the freight availability, type of freight carried and long term contracts with customers.

In recent years, freight movement by road has not kept up with BTKM (Billion Tonne Kilometers) capacity – leading to lower capacity utilisation. For example, the average capacity utilisation has gone down from nearly 64 per cent in 1993-94 to 57 per cent in 2001-02 (see Figure 1).



Source: Deloitte (2003)

This has affected the profitability of operators. Further, the average freight rate (Rs/ Tonne) has gone up only marginally from Rs 1267 to 1395 over the period 1995-96 to 2001-02. Combined with about a three-fold increase in the diesel price, the inability of operators to shift this cost to customers, the profitability has declined significantly. Between 1995-96 and 2001-02 the average profit (Rs/ Tonne Km) has gone down from 0.40 to less than 0.20 (Deloitte, 2003).

Issues

Though emerging as a dominant mode the road goods transport sector has, it is observed, hardly been able to emerge out of the traditional unorganized framework over a period of time. Earlier studies (NCAER, 1979) have observed that due to intense competition, profitability was rather low in the case of the small truck operator. Accordingly, it has been a widespread feeling that the market structure of the industry in

terms of the supply of services is very highly competitive. {In fact, such a structure, it has always been felt, has resulted in viability of operations being a persistent problem. But the National Transport Policy Committee (GOI, 1980) contested this point. In fact, Sriraman et.al. (1998) had observed that non-viability was not an issue since exit was possible and that supply of services had, in reality, increased}. But in the case of fleet owners the return has been considered satisfactory mainly due to existence of economies of scale and certain other advantages. However, we have noted earlier that profitability has been declining in the past decade due to a variety of factors including falling capacity utilisation, rising price of diesel etc. On the other hand, freight rates have gone up very gradually.

Given the dominance of small operators, it is natural to expect a competitive regime to prevail. However, given the segmentation of the industry in terms of market players and market makers, it has been an emerging feeling that this is a sector, which is prone to be dominated by some of the players and makers. In the general goods market, the market is observed to be competitive with each player having a certain well-defined role and being compensated for playing that role effectively. However, in the case of specialized traffic like movement of petroleum products, routine contractual traffic (big ones), it is most likely that there is absence of competition. For example, in the case of petroleum products it is most likely that the buyers of services are basically monopsonists – single buyers faced with number of sellers of services. Given that there are only three or four such monopsonists in the country, the result might well be a price far removed from that in a competitive market even in the absence of cartelisation. Initial observations reveal that even in this segment a dominant influence can be exercised at two levels- one at the level of purchase of services where the monopsonists deals with fleet operators and second – at the operating level where the fleet owner deals with the smaller operators who are involved in significant movements in their specialized vehicles. This argument can perhaps be extended to manufactured items like chemicals, pharmaceuticals, which are supplied in bulk all over the country. Even in the case of general freight where the small operators dominate (in terms of numbers), it is recognised that the role of the middlemen is crucial in price fixation as well as in allocation of the quantum of movement as far as small operators are concerned. In other words, it has been an

evolving feeling that a significant part of the sector may not be really operating within a competitive market structure as is normally thought out to be. It is against this background that we felt the need for a detailed study on possible anticompetitive practices in the context of the RGTI in India.

Objectives of the Study

1. To examine the supposedly competitive nature of the market for general road goods transport services with a view to examining the role of the different players in the industry in fixation of tariffs.
2. To examine the possible use of supply/ area restrictions by the different players to derive some benefit.
3. To look at the possibilities of a limited but possible dominating role in price fixation of the supplier of bulk services such as the fleet operator in the context of subcontracting orders to smaller operators to handle a part of the movement.
4. To examine the role of bulk buyers of road goods transport services especially specialized services in the fixation of prices.

Methodology of the Study

To begin with, it was perceived necessary to look at the existing literature dealing with the RGTI, in general, and with the issues being examined, in particular. Given the enormity of the problem at hand, it was accordingly decided to undertake a limited but focused review, which would keep in view the need for an international as well as a national perspective.

Literature at the international level almost exclusively talked about the impact of the deregulatory process in different situations most appropriately reflected in a competitive price regime hitherto not observed under a system of regulation whose objective was to ensure 'efficiency' in the use of scarce resources. The review at the national level provided a more definite basis in the form of some useful insights for further conduct of the study in terms of elements of the framework that need to be examined.

Since a basic objective of the study was to examine the issue of tariffs and their fixation on a competitive basis, it was felt necessary to understand the movements in freight rates over a period of time from 2002 with a focus on some point-to-point movements between Mumbai and other metropolitan areas in the country. A weekly average gives us a good picture of the fluctuations in freight rates. We have attempted to examine these closely with a view to tracing the immediate impact of changes in fuel costs on rates. This exercise was also undertaken with a view to examine the nature of returns of the operators given that they are engaged in different routes (different distances) with varying loads (as permitted by law and more - of their own accord). To do this, a simple analytical model of costs of trucking operations in EXCEL format was developed. This model looks into the various cost components of fixed and variable categories and has provided the basis for a simulation exercise which takes into account the varying loads, the distances undertaken, the fuel costs, the capital costs, the repayment issue, etc.

Intensive surveys have been carried out right from the inception of the study. More than a hundred and fifty players including operators (small and fleet), brokers, booking agents (transport companies) and some users have been interviewed – mostly in the Mumbai Metropolitan Region and to a very small extent in Goa and Satara. It is on the basis of a detailed analysis of the data and the information collected from the surveys that we have attempted to look at the role of each player in terms of the areas of operations, the nature of the market, the degree of competition. This has enabled us to delineate different models that reflect the presence or absence of competition in the different markets constituting the trucking industry. Such a description and the resulting analysis has enabled us to provide some guidelines for competition advocacy from the point of view of the policy framework as well as the regulatory framework, which are in place but which may require some changes to prevent anticompetitive practices from being sustained.

Scheme of the Report

Having provided the backdrop in Section I, we proceed to review the relevant literature in Section II. In Part I of this Section, we begin with an overview of

competition issues and the traditional approach to these in the form of a regulatory framework and its implications over a period of time. As suggested earlier, though this may not be all relevant, we attempt (in Part II) to draw insights from the deregulatory process that has been in motion for quite some time in a number of countries with a focus on its impact on the market structure. Further, the organizational structures in the context of some of these countries have been examined, as it can be relevant in determining the market structure. Also included in this Part is a review of work done on these issues in the past in the Indian context. The objective was to understand the evolving market structure and also the policy framework especially in regard to some of the dimensions such as legislation, taxation and the regulatory framework within which the industry has grown. In Part III, we attempt a description of some case laws / studies, both at the international and national levels relating to competition issues in the RGTI. Section 3 looks at the freight rates between certain Metropolitan Cities in India over the past four years or so and analyses their movements in relation to the cost of trucking operations. In Section 4, we present, in Part I, the structure of the industry in terms of the various players and their role or otherwise in attempting to fix tariffs which could be deviations from the competitive benchmark price as a result of their preeminence. In Part II, this so-called dominant role is analysed in terms of areas of operations some of which are exclusive domains of some of the different players who may be large thereby enabling, at least in some cases, the possibility of anticompetitive pricing possibilities. Further in Part III, we attempt to understand the issues relating to the study within the framework of provisions of the Competition Act, 2002. Section 5 examines the regulatory and policy frameworks from the point of view of their effects on competitiveness of the industry and finally in Section 6, an attempt is made to provide some guidelines for competition advocacy measures and initiatives on the part of the Government, which need to be undertaken for more effective competition in the industry.

SECTION 2

Insights from Literature and Case-Studies / Laws

In Part I of this Section, an overview of the literature related to issues in competition and regulation is attempted. In Part II, to begin with, the literature pertaining to various international scenarios particularly relating to the RGTI is examined. The rest of Part II of the Section looks at literature pertaining to the industry in the Indian context and our own remarks. Finally, in Part III, we attempt to provide, rather sketchily, a description of some cases both at the national and international levels, relating to competition issues that have been handled in the past by the relevant competition authorities.

Part I

Competition and Regulation: An Overview

Theory suggests that prices and quantities in a competitive market will equilibrate to a level that generate efficient outcomes at any given point of time, given that there are no governmental interventions, asymmetries of information, impediments to the entry and exit of firms or anticompetitive practices by a firm. In such a situation, the price that consumers pay for a good will be equal to the marginal costs relating to the last unit of good produced by the firm. Given the magnitude of market, competition is beneficial because it gives the consumers a wide choice and attempts to provide sellers with strong incentives to keep costs to a minimum. There is also the likelihood that cost savings will be passed on to the customers who may be either final consumers or those using the product as inputs. There is ample empirical evidence that supports these arguments (ADB, 2005). Yet competition is not automatic and is not the same as *laissez faire*. According to Anderson and Jenny (2005), there are reasons to believe that less mature markets tend to be more, rather than less, vulnerable to anticompetitive practices than the markets of developed countries. The reasons obviously include high entry barriers such

as intrusive regulatory regimes, asymmetries of information, non-tradable nature of markets, etc.

For maximum efficiency gains to accrue to any economy, new and efficient firms must be able to enter the market with relative ease while forcing old and less-efficient ones to upgrade or quit. In such a dynamic context, firms need to constantly innovate and adapt quickly to the changing environment thus creating dynamic efficiency. Competition also serves to diffuse socioeconomic power, broadening participation in economic, social and political advances while ensuring opportunities for new entrepreneurs. It can also facilitate in the realisation of benefits for the domestic economy by way of integration into international trade and investment patterns.

When markets are not competitive, whether due to policy-induced distortions, technological characteristics or anticompetitive behaviour on the part of market players, an economy can miss out on many potential benefits. Equally well, government regulation efforts that are intended to take care of consumer interests' result in just the opposite of what was intended to be achieved.

Different kinds of market structure frameworks operate in the different sectors. They range from highly fragmented markets to natural monopolies or oligopolistic markets. Examples of fragmented services include restaurants, retailing and road transport while communication and railways fall under the latter category. The fragmented sectors are characterized by monopolistic competition, the nature of which can be influenced by government regulations, or rules imposed by concerned professional associations.

Hoj et.al. (1995) argue that the traditional rationale for government intervention and regulation is largely related to market failures. Market conduct of firms can be regulated if there are significant externalities or if governments believe that there is a need to control some industries to stabilize economy wide developments in prices or employment. Also, the high information content in a product makes it possible for

information asymmetries to arise. Thus to ensure smooth functioning of markets, governments may impose standards and other requirements on the provision of product information by suppliers. Further, it is observed that the trend of regulatory policy has shifted towards deregulation over the past two decades with an increasing emphasis on promoting competition. This trend appears to have taken place taking cognizance of the fact that traditional regulatory instruments have resulted in serious efficiency losses. Such losses result either from regulations that restrict entry, thereby reducing output and increasing costs. Also, globalisation of economies is forcing various countries to adapt and adjust to changing circumstances.

A main objective of recently evolving regulatory mechanisms has been to restrict the formation of cartels. **Png (2001)** defines cartels as agreements to restrain competition. A seller cartel is an agreement among sellers to restrain competition in supply, while a buyer cartel is an agreement among buyers to restrain competition in demand. A seller cartel sets a maximum sales quota for each participant. By limiting each participant's sales, the cartel restricts the quantity supplied and raises sellers' profit above the competitive level. The more effectively the cartel suppresses competition, the closer will its profits be to the monopoly level. A seller cartel restrains sales to raise the market price above competitive level. The higher the price, however, the more attractive will it be for an individual seller to sell more than its quota, thereby raising the supply and reducing the price. So, to be effective, a cartel must have some way to compel each participant to abide by the quota. If a cartel succeeds in raising the price above the competitive level, it will attract new sellers to enter the market. Hence, another issue for a cartel is how to keep out new entrants. Therefore, the main requirement for a cartel to function effectively is enforcement against existing sellers exceeding their quotas and against the entry of new competitors. The legal systems of most countries attempt to ensure against the formation of cartels. Thus, cartels that are not legal must rely on private enforcement. This in turn depends upon a number of factors, particularly the number of sellers in the market. A cartel would be more effective in a market with few sellers than in a fragmented market.

Competition Issues in the Road Goods Transport Industry

Road transport is undeniably the most dominant mode of transport in countries all over the world today. Over the past fifty years or so, growth in road transport has accounted for virtually all of the growth in land-based transport modes. Road transport competes with other transport modes but the extent to which transport modes are substitutes in any given case has depended on a number of factors such as the type of, say, goods to be transported, the distances involved, the importance of timeliness, the level of charges for infrastructure use, and so on.

It is conventional to divide the road transport sector into two, largely unrelated parts- the road goods industry and the road passenger industry. We focus on the road goods industry, which basically consists of transportation by road of goods between economic enterprises and between enterprises and consumers, including the transportation of bulk goods and goods requiring special handling, such as refrigerated goods and dangerous goods. This industry merges, at its boundary, with the parcel service industry. It is also conventional to make a distinction between the market for self-provided transport services and the market for transport services for hire or for reward. The latter market is the focus of our study.

The provision of road transport services, like all other transport modes, requires two complementary inputs – infrastructure and vehicles that make use of the infrastructure. In the case of the roads, the infrastructure consists of the network of roads. Traditionally, the ownership and operation of the road infrastructure has always been separated from the ownership and operation of vehicles, which use that infrastructure. This has often raised questions relating to proper charges for use of the infrastructure which becomes important when considering the nature and extent of inter-modal competition.

Like other transport modes, the operation of vehicles over the road infrastructure creates risks and nuisances for other vehicles, pedestrians, local residents and the environment. The control of such risks and nuisances comes under the domain of safety

and environmental regulations. But historically, there have been economic regulations, which have proved to be impediments for entry, exit, fixation of prices, provision of services and ownership patterns thereby resulting in efficiency losses.

The scope for effective competition, and correspondingly, the need for regulation differ significantly between sub sectors in the system. Given that economies of scale are low, there are virtually no sunk costs and that there are hardly problems of coordination, the road goods transport industry comes closest to lacking any structural barrier to competition or being virtually contestable (**Kessides, 1993**). However, the industry in many countries has traditionally been a heavily regulated one, often as a device for protecting the rail industry. Regulation here refers to “economic regulation” which means control over pricing and entry, replacing competitive forces. In recent decades especially the 1970’s academic economists questioned the rationale for regulation of the motor carrier industry. Their basic tenet was that the industry did not exhibit a natural monopoly type of market structure; rather there were repeated findings of constant returns to scale for the overall industry. They further argued that regulation itself had led to various economic inefficiencies that resulted in higher costs of providing truck services (**Friedlaender and Spady, 1981**). Deregulation of the trucking industry was predicted to increase competition, lower costs and thus rates, benefiting shippers. **Moore (1995)** claimed that the major beneficiaries of trucking regulation were the trucking firms themselves who earned large profits under regulation, and unionized labor, which was able to extract wages almost, double those available in jobs of similar skills elsewhere in the economy. As a result, many countries liberalized their road goods market following which very few controls on prices, services or quantities remain. We now turn to a more detailed account of the effects of deregulation of the road goods transport industry in some countries as well as in India.

Part II

International Insights

Smith (1995) studied the deregulation of trucking in the U.K. As per the Transport Act, 1947, the British Transport Commission (BTC) was set to co-ordinate the development of a nationally integrated transport network. This intention was pursued until 1979, but at the expense of productive efficiency in road freight movements. All land transport was controlled by the BTC through four executives. The Road Haulage Executive (RHE) was responsible for road haulage activities and traded as British Road Services (BRS). Nationalisation of such a fragmented industry proved difficult, and it was possible to nationalise only long distance hauliers. Private hauliers were limited to a radius of 25 miles. At the end of 1951, when the final take-overs were completed, BRS had acquired over 3,700 firms, owned some 41,000 vehicles, based on 1,000 depots, and employed over 75,000 people. BRS's monopoly was consolidated by BTC's control over the issuing of new licences to competitors. Subsequent legislations moved, albeit slowly, towards deregulation. However, the legislation, which ushered in deregulation, was the 1968 Transport Act. The Act created a system of licensing (quality licensing), and removed the restrictions on numbers of vehicles which could carry freight unless vehicles were carrying the company's own goods (own account), in which case the company had to have a permit. Under the new system, anyone operating Heavy Goods Vehicles (HGV) was required to hold an operator's license (O license) - a license granted by the Traffic Commissioner to those of good repute. In order to operate, firms had to show that they had sufficient financial standing and resources to maintain vehicles. The system therefore changed from quantitative to qualitative regulation in terms of promise to promote reasonable business standards thus lowering barriers to entry to the industry. Ultimately in 1982, the National Freight Corporation, U.K's largest freight company was privatized by means of an employee buyout thereby effectively completing the deregulation and privatization process. There is currently a dominance of common carriers, which have been successful in offering attractive services to customers.

Yamauchi (1995) studied trucking operations in Japan. The Road Transport Law had regulated the trucking industry in Japan until the end of 1990, when new laws covering freight transport came into effect. The purpose of the laws was to relax trucking regulation. The new version of the law provided the license system of new entries and approval system of rates and this authority was basically in the hands of the Ministry of Transport (MOT). The Road Transport Law had in the fifties centralized the decision-making authority, and the regulation of road transport was carried out based on this version until 1990. The Road Transport Law provided that new entries could be licensed only if the balance of supply and demand in that market would not be disturbed by those entries. In the trucking industry, it was possible for new operators to enter that market if it could be proved that there was a demand for their service. The new laws pertaining to road freight movements in Japan are the Motor-Truck Transport Business Law and the Freight-Forwarding Business Law. The former provides new regulations of the trucking business, and the latter deals with freight forwarders. The most important feature of the Motor-Truck Transport Business Law was the relaxation of regulations of entry and price setting; that is, the so-called reform of economic regulations. Under the Road Transport Law, no one could begin to operate a trucking business without a license, and the law provides the standard on which the regulator judges whether or not a license should be issued. Of these standards for new licenses, the most important and the most influential standard was the so-called supply-demand balancing clause. This clause provided that a new license could be issued if and only if the balance of supply and demand in the market would not be disturbed by the new entry. This was meant as a quantitative control of supply. One point at issue is that the new law has a safeguard clause for excessive supply. Under this clause, regulators can sustain operational permission, in case supply of truck services is judged to be very excessive. With respect to fares and charges, the new law changed the regulation from an approval system to a filing system.

Deregulation of non-urban buses and trucking in Chile was implemented during the 1970s as part of a series of measures taken in response to the economic crisis that the country was facing at that time. It is therefore difficult to distinguish changes in transport attributable to the deregulation measures themselves from changes attributable to broader

economic or policy changes. Previously the transport sector was heavily regulated. This resulted in a multitude of government- approved local trucking associations, whose members were small truck operators, who were allowed to monopolise local freight markets and were subject to tariff controls. The import of trucks was restricted in order to sustain a local truck manufacturing venture supported by the government. Trucking deregulation in 1975 freed tariffs and allowed entry into the business without having approval from the government or membership of any particular trucking association. Simultaneously, the government allowed the importation of trucks which, combined with other economic reforms, contributed to a sharp increase in the number of trucks in operation, often financed by foreign credit. An economic crisis in 1982 had disastrous effects on the trucking sector. Rates fell and the government had to intervene to help repay foreign loans. In subsequent years, the traditional small operators with one truck have been replaced to some extent by trucking companies who offered specialised services. Despite financial problems of the past, the trucking industry remains profitable. This was especially true of the larger companies. For deregulation to be sustainable, it was suggested in the early nineties that the government should develop anti-monopoly controls to prevent collusion between operators and predatory action by financially strong operators (Carbajao, 1993).

Thompson (2000) reviewed the U.S. regulation of the trucking sector and its subsequent deregulation. The Motor Carriers Act of 1935 effected regulation in U.S. trucking. The main objective of this Act was to restrain competition and regulate rates. For instance, common carriers had to operate under a certificate of public convenience and necessity (referred to as “grandfather clause”) and charge “just and reasonable” published rates. The stability of membership and lack of free entry created huge economic rents, which made trucking certificates a finance able and tradable commodity. However, an interesting point to be noted is that “Exempt” services, which were by and large outside the purview of regulation constituted about 60 per cent of intercity traffic. The main proponents of this Act were large truckers and the Interstate Commerce Commission while the opponents were larger shippers and smaller truck operators. The author pointed out that ironically the trucking sector did not suffer as much as perhaps

expected from the regulatory mechanism because the competing mode, viz. railroads, were subject to tighter regulations and hence there was no “crisis” to change the regulatory mechanism at least in trucking. The year 1980 proved to be a landmark year as far as transport deregulation in the U.S. was concerned. The Motor Carriers Act, 1980 marked the deregulation of U.S. trucking. The Act deregulated entry into the trucking market, rates to be set and replaced regulatory controls by antitrust provisions. Deregulation yielded interesting results for the trucking market. Physical output was at an all time high as was net income. Initially, several firms had to close down due to financial failures but over time, the number of carriers doubled since 1980. Also, there was an increase in the average hourly trucking earnings. It has been estimated by Winston et.al. (1990) that the economy benefited to the extent of about \$8.1 billion from trucking deregulation, of which \$3 billion was in reduced private carriage costs, \$4.3 billion in lower rates to shippers (primarily in the LTL area), and the value of better service to the extent of about \$0.8 billion.

Dutz et.al. (2000) analyzed the deregulation of trucking operations in Mexico. Since the 1940s, trucking operations in Mexico were regulated. However, the regulatory framework was seriously implemented only with effect from 1977. It is interesting to note that the rationale for regulation in Mexico was provision of reliable transport services and effective utilization of transport infrastructure. It was believed that competition would introduce unnecessary price and service variations and also encourage sub-optimal cost cutting behaviour thereby affecting safety and also resulting in non-adherence of environmental standards. The study, however, noticed that the main reason for regulation was to protect the interests of the few family owned businesses involved in trucking. Market power emerged, not necessarily from the ownership of trucks but from the control of freight terminals. Contrary to regulatory regimes studied earlier, trucking in Mexico was not subject to restrictions on vehicle weight, vehicle dimensions, vehicle safety or emissions. Since transport undertakings were exempt from taxation, there was a perverse incentive for manufacturers to start trucking services to evade corporate taxation. Also, there was restriction on entry in that any new operator, in order to get a concession from the central regulatory authority, had to tie up with an existing company,

which obviously was far from straight forward. This, in turn, led to strengthening of existing firms and formation of cartels. Deregulation of trucking movements in Mexico was a direct offshoot of the trade liberalization in 1989 after Mexico joined the North Atlantic Free Trade Association (NAFTA). Deregulation was carried out in three stages. The first stage involved evolving a draft proposal by a select group without consulting key stakeholders. Garnering of support for deregulation from the national trucking associations followed this. The second stage involved elimination of most entry restrictions thereby abandoning the “public service” notion for trucking that was behind the concept that truck operators required concessions. The third stage involved removal of pricing restrictions; particularly tariff ceilings and truck operators were free to negotiate freight rates with customers. Deregulation had several favourable impacts—there was an increase in output and hence, a reduction in price. There was an increase in productivity levels of trucking firms and there were new entrants due to the relative ease of entry. There was a favourable impact on industries’ performance where transport was an input. It is estimated that the cost of regulation was 0.5 per cent of the Gross Domestic Product (GDP). Certain interesting features emerge from Mexico’s deregulation experience. Successful reforms require high-level political support. For instance, the deregulation of trucking took place in Mexico took place by means of presidential decrees. Secondly, reforms need to be packaged effectively to gain acceptance among key stakeholders. In Mexico, the reforms were projected as means to modernize trucking operations without any reference to oligopoly or competition. Though it is a debatable policy measure, particularly from an ethical standpoint, it has proved to be highly successful in Mexico. Thirdly, it is important to be aware of the right time for discussion of reforms with stakeholders. Only after the draft proposal was formulated, were the stakeholders consulted or else, the whole process could have been derailed right at the outset. Also, the reform processes could take time to yield the desired results due to the inertia prevailing in the system. For instance, in Mexico, since various operators were used to the formation of cartels and other such anti-competitive practices during the regulatory regime, they had a tendency to resist competition even when the policy framework encouraged the same. Hence, competition was attempted to be subverted by

means of inter-company agreements. Thus, one needs to be patient while studying the results of deregulation, especially in economies with high degree of controls.

According to **OECD (2001)**, road freight regulation in Australia took the form of reservations of specific freight movements to rail transport. Pockets of economic regulation in the form of operator licensing for road freight operators existed but were not universal. After the 70s, the Government moved to deregulate the industries. Almost all the regulations have now been removed. However, there have been concerns about the safety performance of road freight operators particularly in relation to long distance services. These concerns have been based on suggestions that returns in the long distance sectors are low enough so as to provide significant incentives to operators to violate safety and infrastructure protection regulations such as controls on speed, driving hours, etc. As a result there have been suggestions within industry to introduce economic regulation in the form of operators licensing or accreditation systems that place controls on industry entry and rate protection, in order to improve safety performance. Currently, a firm wishing to provide road freight services is not subject to any specific regulation other than those applying to all businesses and safety and infrastructure protection standards applying to the design and operation of heavy vehicles. No license is required to operate road freight services. No price controls apply to these services.

According to **Lee (2002)**, in Malaysia competitive regulation in most sectors (except energy and telecommunications) has traditionally been undertaken at the sectoral level via control over prices and entry conditions (for example, permits and licenses). Competition in the transport sector is affected by regulations imposed under the three ministries, namely, the Ministry of Transport (MOT), the Ministry of Works (MOW) and the Ministry of Entrepreneur Development (MET). Overall, the MOT is the sector regulator and concentrates on transport infrastructure development (other than roads and highways) and their regulation. For example, the Ministry sets port tariffs and airport tariffs. The MOW is responsible for regulating roads and highways including private sector roads. The entry conditions in private commercial vehicle markets are controlled by the MOW via the Commercial Vehicle Licensing Board, which is responsible for issue of licenses in these markets. Most of these controls are subservient to socio-economic

objectives other than promoting the process of competition in markets. Due to the absence of formal competition in these sectors, regulators either do not recognize or often do not know how to deal with competition related problems. Most of the prominent related cases in recent years have occurred in commercial vehicle markets such as the truck (haulage) industry.

Arrunada et.al. (2004) have studied the organizational structure of both the European and American trucking markets. It is observed that as opposed to their U.S. counterparts, the European trucking industry comprises mainly of owner operators, i.e. independent contractors who own and drive their own trucks. The average number of employees appointed by a U.S. truck operator is 14.7 while that of the European truck operator is only 3.9. Using a regression model to analyze ownership, they dispel the popularly held notion that differences in technology and transaction costs are two possible reasons for the difference in ownership pattern and conclude that differences in institutional environments, especially labour and tax laws provide the most likely explanation for disparity in ownership patterns. These variables, the authors suggest, could act as “shift parameters” that affect the relative forms of governance in a way that cause similar transactions to be organized differently. Also, carriers are more likely to own their trucks if there are important hold-up problems related to the existence of specific assets and when monitoring drivers is relatively easy. Since conventional economic theory links integration to reaping the benefits of economies of scale, the authors believe that removal of institutional impediments is likely to facilitate integration of fleet.

National Insights

The RGTI in India has been, in the past, the subject matter of many High-Powered Committees most of which examined issues relating to the regulation of the industry with taxation being an important element for consideration and discussion. It is only during the past three decades that specialized studies on the industry were taken up with a view to examine its operations in a more comprehensive way. These have included issues relating to fixation of rates and the competitive nature of the market of the industry. We now

attempt to briefly review the Committee reports and the specialized studies with a view to deriving some guidelines for the specific purpose of our study.

Among the earliest reports were those of the **Mitchell- Kirkness Committee (GOI, 1932)** and the **Wedgewood Committee (GOI, 1932)**. The recommendations of these Committees provided the basis for a framework of regulation in the form of the **Motor Vehicle Act (MV Act) of 1939 which has been amended significantly in 1956, 1969 and in 1988**. This Act has attempted to create a machinery for the administration and control of road transport in the country at the State level since the executive responsibility for road transport vests with the States under provision to Article 73 (1) of the constitution of India read with entry 35 in the Concurrent List (list III) of the seventh Schedule. While safety regulations were inherent, there were elements that tried to take care of the competition between road and rail. To begin with, road movement was to be confined to parts of a State with some relaxation coming later in the form of zonal permits. However, by the late 1960s, given the inability of the railways to handle movements, the process was set in motion to permit national movements. It has always been a debatable point as to whether the initial restrictions on movement were to ensure that the railways were protected or it was on the basis of a consideration of the resource costs of movement which usually indicated that road movement must be confined to short distances. Under Section 67 of the MV Act, 1988 (earlier Section 43 (i) (i) of the MV Act of 1939 as amended in 1956), State governments may issue directives to the State Transport Authority and Regional Transport Authority regarding the fixing of freight rates including maximum and minimum thereof.

Among the first of the Committees set up after Independence was the **Motor Vehicle Taxation Enquiry Committee (GOI, 1950)**. With its focus on the taxation part, its general conclusion “is that the present taxation policies of the central and State Governments do not conform with their overall policy of developing road transport as a national enterprise” (p.127). But their observation that the permit system for goods carriers that is based on merit would not really prove to result in competition to the railways which were already beginning to show signs of strains in handling the

requirements was significant. As for fixation of minimum tariffs as provided by the MV Act of 1939, the Committee did not come across any example of a minimum freight rate having been fixed. “The difficulty lies in enforcement as payment of less than the minimum fares or freight could generally be detected with the assistance of *agent provocateurs*, a method of detection that must be repugnant to any democratic government” (P.41). Again, the fixing of minimum rates would appear to partake of undue interference with the market mechanism in terms of the private sector trying to establish new routes and services. **The Taxation Enquiry Committee (GOI, 1953)** had a limited role in the context of the transport sector but went into the aspect of financing of road development in detail besides advocating statutory regulation of all intermediaries in the roads goods transport industry. This latter aspect has been the subject matter of almost all the studies undertaken later. Needless to say, while some regulatory provision was made, it has not been implemented. **The Road Transport Reorganisation Committee (GOI, 1958)** was concerned with the administrative machinery for regulation and control of motor transport in the States. However, to the extent that it looked at the permit system it provided useful guidelines on the issue of permits and its expected impact on competition within the sector and with the other modes especially the railways. In the early sixties, **the Committee on Transport Policy and Coordination (GOI, 1966)** was set up to formulate a long-term transport policy for the country with a focus on the need for coordination and accordingly regulation of the different modes of transport. In regard to the road transport sector, the Committee was of the firm view that the existing regulatory framework “has failed to secure the development of the industry along sound and efficient lines, or to achieve proper coordination between rail and road transport. Instead, it has provided the basis for a restrictive and unintegrated approach to the development of road transport” (p. 203). The issue was: whether there was too much regulation or very little? From the Committee’s recommendations, it appeared that the framework was inadequate either in its provision or in its implementation. Accordingly, one recommendation was that State governments should specify minimum freight rates, which could be sought to be enforced by associations of goods carriers. Their idea of a minimum rate was to take into account the objective of rail- road coordination. This is an aspect, which needs serious consideration, but from an altogether different perspective

even in the present time when operators have told us they are in favour of a minimum freight rate. However, other important recommendations useful from our viewpoint relate to reorganisation of the industry in terms of viable units and to provision of legislation for formation of associations with specific functions and responsibilities which included, among many others, an important role to provide booking and forwarding facilities especially for the small operators. The next in line was the **Road Transport Taxation Enquiry Committee (GOI, 1967)**, which was given the task of comprehensively looking at the question of taxation of motor vehicles in India. In the process of attempting to examine the burden of taxation on costs of operations, the Committee had a fairly detailed look at the returns of the operators wherein it was observed that hardly 22 per cent got adequate returns – which was partially due to the stagnation of freight rates and also in part due to, the Committee felt, the somewhat excessive margins retained by the booking agents. Though some States had prescribed some rates by 1966 it was generally found that these rates had no relationship to prevailing market rates, which was being driven by demand and supply forces. Further, in regard to margins of booking agents, the Committee observed ” It has been alleged that at times the margins of booking agents from truck operators is as much as 50 per cent of the freight they charge from clients”(p. 49). Though this alleged figure seemed to be on the high side, it was considered desirable that in the matter of freight charges, the agencies should get a fixed percentage by way of commission and ought not to be free to keep back any amount as commission. The Committee, therefore, recommended the regulation of booking agents who would accept goods for transport at fairly reasonable rates. Accordingly, a provision was incorporated into the MV Act in 1969 (Section 93 as provided for in the MV Act of 1088). The report of the **National Transport Policy Committee (GOI, 1980)** was the most comprehensive document that was ever brought out till then. The Committee rightly observed the need to give the railways a larger role to play especially from the point of view of efficiency considerations. However, at a practical level, the Committee felt that no restrictions ought to be placed on truck movements all over the country, given the need to upgrade the railway system significantly only after which a rightful role to the two modes could be assigned based on a consideration of resource costs. For the Committee, the viability of truck operations

was never an issue since ease of exit (as an option) allowed players to move out without much difficulty. It is to be noted that while this option is normally expected to be available, it is most often not resorted to due to the inability of an alternative occupation. This aspect is especially important at present when there appear to be too many operators who have entered the market due to ease of entry.

The first among the specialised studies on the trucking sector was undertaken by the **National Council of Applied Economic Research (NCAER, 1979)**. The study observed that the contribution of road transport to the process of economic development could be greatly enhanced by the ability of this industry to provide superior quality service and reduce total distribution costs through reductions in freight charges. The key elements, which could make this reduction in cost and superior service possible, are of two types, namely, external and internal. Among the significant external factors are high levels of taxation, road conditions, detention at check posts and problems related to inadequate and high cost of finance. The internal element was mainly in the form of organisation of the structure of the industry. The study pointed out that the low profitability of small operators is partly due to their low net freight realisation. This was a consequence of the relatively high margins retained by booking agents on freight bookings as a result of the operators' heavy dependence on these agents. While any legislation formalising the role of booking agents would be useful, it was felt that only the formation of viable units could ensure optimum utilisation of truck and higher net freight realisation. The study undertaken by the **Central Institute of Road Transport, Pune (CIRT, 1994)** was equally comprehensive in its approach and examined a number of dimensions relating to the industry. Given the restrictive approach under a permit scheme of things, the study observed that a wholly different method was required whereby there is a qualitative character given to the holder of permits in terms of minimum qualitative requirements to be fulfilled by goods vehicle operators preceding their entry in the transport business. This was an immediate requirement given the preponderance of small operators and its implications in terms of dependence on other players, the low system output in terms of quality and inefficiency of operations resulting from fragmentation. A major recommendation called for registration of all operators under an appropriate legislation

on the basis of a minimum fleet strength and other entry qualifications. The study observed that the productivity of the system was likely to improve under such a situation which provided the promotion of the undertaking of as many transport activities as possible by viable units and not merely confined to the haulage function only as was the dominating feature of operations in the past. Towards the late nineties, **the Asian Institute of Transport Development, New Delhi undertook a comprehensive study of trucking operations in India (AITD, 1999)** at the instance of the Ministry of Surface Transport, Government of India. It was conducted under the supervision of a Steering Committee with the help of a number of Sub- Committees (one of which dealt with Financing, Taxation, Pricing and Insurance was under the Chairmanship of the Principal Investigator of the present study). The surveys that were undertaken as part of this study were taken up by the Central Institute of Road Transport, Pune and were far more comprehensive than those undertaken in 1994. A review of this study reveals some useful findings and recommendations though it must be admitted that most are only reiteration of past findings. Among other things, the study recommended the setting up of a Transport Regulatory Authority with a basic function being the enforcement of the provision of the MV Act and the rules framed there under. Given the Constitutional provisions, it is not quite clear what would be the effective role of such an Authority. However, an important conclusion was that there was no need to regulate freight tariffs by fixing minimum and maximum rates Accordingly, it was even recommended that the relevant provisions contained in Section 67 (1) and section 79 (2) (iv) may be dropped from the Act since they are redundant. It was, however, suggested that in order to ensure reasonable returns to operators, associations should be given the responsibility of fixing a commission payable to the intermediaries. As part of its recommendations, the study emphasised the need for regulation of intermediaries through a process of registration. A modification of Section 93 of the MV Act would, accordingly, be required to define brokers and booking agents and mandate their registration. In the context of a study undertaken to examine the different dimensions of modernisation in the context of the trucking industry in India, a more recent study (**Deloitte, 2003**) also discussed the issue of low profitability of small operators arising not only from excess availability (resulting in declining freight rates and low utilisation) and increasing fuel costs but also due to a

continuous move of large fleet operators towards a non-asset based model as a consequence of which a larger number of small operators are depending on intermediaries thereby affecting their profitability. The study also observed that a certain usage profile – long hauls, medium hauls and short hauls and the ownership profile – new buyer/, second /third owner, etc. also have an impact on profitability. In the case of long hauls and short hauls, new trucks and much older trucks were being used respectively with only marginal returns resulting (slightly higher in longer hauls) due to a large number of operators competing for the same freight. In the case of medium hauls, three-year old vehicles were used in a not so competitive market to earn good operating cash profit. The most recent work was undertaken by **The World Bank (2005)** wherein the efficiency of trucking operations in India has been examined in some detail. A useful observation is that India has achieved a highly competitive, low-cost road freight transport industry for basic services, with highway freight rates being among the lowest in the world. The industry is deregulated and highly fragmented with many small operators. The industry's structure, comprising transporters, broker agents and small operators, is market driven and appears to be serving the market reasonably well. Given the very low freight rates, the study attempts to conclude but very hesitantly that it is an effective industry structure. There are reasons. Trucking freight rates are so low that on some occasions, truckers make losses, it appears, even in the longer run but continue to remain in business due to lack of any other opportunity. It is also pointed out that while the freight rates are low, the quality of service is indeed poor with low reliability and high transit times. Also, the equipment utilization rates are a quarter of those of developed economies, mainly because of undue delays at check points. Truck delays at checkpoints have been estimated to cost the economy anywhere between Rs.9 billion and Rs.23 billion a year in lost truck-operating hours. To reduce delays at border crossings, particularly for high value or time-sensitive goods, the report recommends consideration of a system such as the European T.I.R., to permit sealed trucks which elect to use the system to operate without en-route inspections on the basis of a certificate issued at origin by a duly authorized and bonded issuing entity. It has been pointed to us during the course of our surveys that the typical user insisted on low tariffs even at the expense of quality of service – meaning that there was willingness to accept the trade-off. This

indeed has implications for the healthy growth of the sector, which would obviously require reasonable returns on haulage while attempting to reduce other implicit road costs.

Our Remarks

Deregulation in the transport sector has taken place in many countries in the past two decades or so. It has been observed that the effects of deregulation have depended on the extent to which the industry was regulated earlier. However, broadly the effects have been as follows:

- The capacity available for common use has increased significantly with increasing dominance by highly competitive small operators
- Rates have fallen considerably as a result of more capacity and introduction better technological features
- Falling rates have benefited customers but with costs not reducing to such an extent, profit levels have fallen though operators offering higher levels of service have achieved higher profit levels.

The roads goods transport industry in India has never been regulated the way it has been in many other countries. But as mentioned earlier, a regulatory framework in the form of the MV Act has been in place since 1939. This did provide for restrictions on permits but over a period of time these have been relaxed to a very large extent permitting easy entry into the industry and for movement all over the country. This is perhaps the only deregulatory move that taken place in India as far as the trucking sector goes. And the credit for this development goes to the Indian railways, which had no capacity to offer on a regular basis even with regard to bulk items. But as observed by the various Committees and pointed out by the different studies, the Motor Vehicle departments of the States have mainly focused on the collection of revenue (tax and otherwise) rather than on effective enforcement of the provisions of the MV Act. As a result, an effective regulatory framework has, in our opinion, never been attempted to be put in place. This has emerged over the years as a major external impediment (in terms of

a number of dimensions) to the effective growth of the trucking industry in India. This is a matter of concern especially when viewed in the context of an emerging globalised competitive economy. In this context, it becomes imperative to point out the major internal impediment that the industry faces in the form of its internal organisational structure, which has implications for efficient operations. It was observed earlier that the industry offered low rates in India. Basically, the industry is characterized by skewed-large number of operators and users and sufficiently large number of intermediaries between these two players. The question – what are the agreements between the various players? Some are formal while most seem to be informal. These informal agreements appeared to be often highly iniquitous as a direct consequence of the intermediaries' access to information. The power the intermediaries exert over the industry is not, however, matched by the capital employed by them. This suggests that there is an imbalance here in the way the revenue is being shared by the various players in the industry. Clearly, there is a need to bring the intermediaries under the purview of regulation. However, effective interaction between the various elements of the industry needs to be encouraged by government policies, which are necessary for the healthy growth of the industry (Thukral, 2002).

A survey of the literature related to the trucking sector put our study in the proper perspective. The study team believed that it needed to fill certain gaps. First of all, it was pertinent to take a critical look at the supply chain related to trucking, in the sense of who actually determined the price of trucking services and more specifically, the role of the operators and intermediaries in determination of the price. The basic objective was to examine the possibility of price fixation at levels not really reflecting competitive benchmark rates. Thus, a related objective was to take a look at various costs related to operations and the returns derived thereby. Given the state of the market and knowledge of the cost structure, it was possible to make conjectures related to break- even situations, earning of positive or negative economic profit, the rationale for overloading, etc. However, this required some understanding of policy and regulatory elements, which would ultimately have an impact on fixation of tariffs.

Part III

Case Studies / Case Laws

International

United States

As pointed out earlier, for more than three decades inter-state trucking was heavily regulated by the Interstate Commerce Commission (henceforth ICC). The ICC reviewed rates, on receipt of complaints, that common carriers were required to file, and the ICC strictly limited entry. Beginning in the late 1970s, a series of administrative and legislative actions, more specifically the Motor Carrier Act of 1980, liberalized regulation of the industry. These, and similar initiatives deregulating the rail industry, led to the abolition of the ICC in 1995 (ICC Termination Act of 1995). On January 1, 1996 the Surface Transportation Board (STB) was established as an independent adjudicatory body housed within the U.S. Department of Transportation, with jurisdiction over certain surface transportation economic regulatory matters.

Though inter-state trucking movement is almost fully deregulated and with nine States having more or less fully deregulated intra-state movement, it is reported that 41 States continue to regulate most aspects of intra-state trucking (Taylor, 1995). Studies of inter-state deregulation according to Taylor suggest that it is saving shippers and consumers as much as \$20 billion per year in transportation and logistics costs. Further deregulation of States' trucking entry and rates could save shippers and consumers an additional \$11 billion dollars a year. Opponents of intra-state deregulation have argued that it would lead to destructive competition and predatory pricing, loss of rural service, and deterioration in safety. However, neither theory nor experience with inter-state deregulation and intra-state deregulation in several states supports those claims (Taylor, 1995).

It is in the context of intra-state deregulation that some cases relating to anticompetitive practices have arisen. More recently, a merger between two trucking firms involved in LTL movement came under scrutiny. We report these below.

One case related to the **Indiana Household Movers and Warehousemen, Inc. (IHM&W)** which represents approximately 70 household goods movers doing business in the state of Indiana. **The Federal Trade Commission (FTC)** of the U.S., which is the competition authority, pursued the complaint that this agency was engaged in price fixation on the basis of collusion amongst its members. It was understood that the rate that was to be filed with the State Rate Bureau by individual operators was based on the common rate fixed by the members of the agency collectively. Overall, the acts, policies and practices of the respondent (namely the agency), its members and others, were to the prejudice and injury of the public and constituted unfair methods of competition in or affecting commerce in violation of Section 5 of the Federal Trade Commission Act, as amended. The question before the Commission in this case was whether the state action defense immunized IHM&W's conduct. "This case provides guidance to the business community regarding the standards that must be met to immunize anticompetitive conduct as an activity of the state," said Joe Simons, Director of the FTC's Bureau of Competition. The Commission concluded that IHM&W's price fixing was not actively supervised by the State of Indiana, and thus, did not qualify for immunity. The FTC settlement barred the IHM&W from filing collective tariffs with the State (FTC, 2003).

The other cases related to very similar complaints against the Alabama Trucking Association, Inc., the Iowa Movers and Warehousemen's Association and the Minnesota Transport Services Association. Here again the Commission barred the Associations from filing collective tariffs with the State (Federal Register, 2003).

The **merger case** related to two trucking firms, **Yellowstone Corporation and Roadway Corporation** – both motor carriers active in the LTL market in 2003. There are important differences between the Truck Load (TL) and LTL businesses. To carry truck-load quantity of freight efficiently, all one needs is a rig, a map, a telephone, and

perhaps an internet connection. LTL carriage, defined conventionally as shipments of less than 10,000 pounds, is very different. The amount of handling required to provide this kind of service is much greater than the handling needed on truckload shipments, and as a result, LTL rates for a given distance are several times higher per hundredweight than TL rates. One key requisite of an LTL specialist is a network of terminals. According to their reports, Yellow had 345 terminals, with an average shipment size of 1000 pounds and average shipping distance of 1200 miles; Roadway had 371 terminals and reported an average shipment length of 1301 miles. In this context, it will be useful to report some of the comments of Professor F.M. Scherer (AAI, 2003), an academician of international repute on possible anticompetitive effects of the merger. According to Scherer, given the high localization that takes place in the LTL segment, there has been a tendency for oligopolistic structures to emerge. He held that “There must be many parts of the United States, typically more than 50 miles from large cities, in which the number of competing LTL carriers can be counted on the fingers of one hand, with some fingers to spare”. According to the 1997 Economic Census of Transportation and Warehousing, Subject Series, the four largest long-distance LTL companies, two of which were almost surely Yellow and Roadway, generated 39.3 percent of total category revenues. They operated 1271 establishments or an average of 318 each -- a bit less than half the number of terminals reported separately by Yellow and Roadway. Scherer held that it is possible or even likely that the merger leads to a consolidation of viable LTL terminal-operating rivals with much larger market share impacts. A merger with substantial market share impacts could strengthen adherence to some sort of a price leadership. And in an industry with a long tradition of overt collusion in rate-setting, it was not inconceivable that there could be actual collusion. Further concentration of the market structure could reduce remaining proclivities toward independent pricing. Further, in tightly oligopolistic localized markets, a merger from say three to two rivals could also have an adverse impact on service competition. It was concluded that the expected efficiency gains (as a result of a merger) need not necessarily be passed on to the consumer, if the evidence shows pricing to be formulaic.

According to the United States Department of Justice, Yellow Corporation's \$1.1 billion acquisition of Roadway Corporation, seemed when it was announced, like a big deal. Yellow and Roadway were the two largest trucking companies that focussed on long-haul LTL freight. LTL carriers consolidated smaller shipments from many customers, often using hub and spoke systems. Long-haul LTL carriers served the entire continental United States and generally transport shipments 1,000 or more miles. After closely examining the industry, the FTC determined that this transaction did not warrant a challenge. **It was concluded that post merger there would remain sufficient LTL alternatives, including truckload consolidation, large multi-regional carriers, regional LTL partnerships, small package carriers, as well as three other long-haul LTL competitors. These alternatives collectively would prevent a combined Yellow/Roadway from imposing a rate increase or reducing service.**

Australia

Australia's competition laws, the Trade Practices Act 1974 (TPA), apply in full to the road transport sector without exemption or exception. Although specific exemptions can be granted under the TPA to conduct that might otherwise breach the law if public benefits from the conduct would outweigh the anticompetitive detriments also arising from the markets. The TPA is administered by Australia's national competition regulator – the Australian Competition and Consumer Commission (ACCC). We now turn to a few case studies

1. Horizontal arrangements – Misuse of Market Power

In 1995, misuse of market power involved a case against three major companies in Australia's overnight freight express industries-TNT Australia Pty Ltd (TNT), Ansett Transport Industries (Operations) Pty Ltd (Ansett) and Mayne Nickless Ltd. (Mayne Nickless) initiated by the Trade Practices Commission. The Commission alleged that TNT, Ansett and Mayne Nickless had formed, and given effect to, an arrangement to fix prices and regulate market shares in the express freight market in contravention of the TPA. It was held that the arrangement had

continued for many years and was held together by meetings between senior officials of each of the companies. These meetings resolved 'ownership' of particular customers, disputes over which companies had breached agreements. They were also found to be involved in what is known as collusive tendering. As these three companies accounted merely 90 per cent of all sales in the industry, the economic significance of such an arrangement was obvious. It was ordered that TNT pay a penalty of \$A4.1 million, Ansettset \$A900000 and Mayne Nickless \$A 6million. Total penalties and costs ordered by court amounted to over \$A 14.1 million. This case was regarded as a watershed in the history of TPA in Australia as it marked coming of age of competition law as a law requiring the utmost serious compliance by all corporations, large and small.

In 1998, Australia's Federal court imposed penalties totaling \$A 4 million against J.McPhee and Sons (providing freight services) and four of company's executives for breaches of Part four of the TPA. The court had found that the company had attempted to reach a collusive tendering arrangement with a competitor, Discount Freight Express in 1995. Earlier in 1994, the court had found McPhee engaged in price fixing and ordered a penalty of \$A 750000.

2. Merger –

In August 2000, the ACCC announced that it would not intervene in the proposed acquisition of Finemores Holdings Ltd by Toll Holdings Ltd. Both are providers of transport and logistics services. They operate across a broad range of transport segments, including refrigerated transport, bulk liquid transport and general freight. In logistics they provided warehousing, tracking and inventory control. The ACCC conducted extensive market inquiries during its investigations and found that there were a large number of small operators providing transport and logistics services but a relatively small number of large, national providers. For example, it was estimated that there were around 40000 transport providers of which roughly 70 per cent operated a single vehicle. While the merger proposal was considered to result in further concentration at the top tier of providers, there

was very little concern among the competitors and the customers as to the potential lessening of competition as a result of the merger. The ACCC found that competition among transport and logistics providers is fierce. The reasons included relatively low barriers to small scale entry and countervailing powers that resides with the customers.

Ireland

In Ireland competition laws apply to the road freight sector without exception. As with other sectors the competition authority enforces competition law.

In 1997, the competition authority began an investigation into a possible cartel in the road haulage industry following complaints that the Irish Road Haulage Association (IRHA) had written to various firms indicating that its members had agreed to minimum rates for transport of freight to and from Dublin port and would not provide services to any customer below these rates. A month later a large number of hauliers began blockading sections of Dublin port. The Competition Authority applied for an *ex parte* injunction because it believed that the blockade was intended to secure customer agreement to the proposed rates. In 1998 the case was settled when the defendants agreed to a court declaration that they had engaged in a concerted practice to fix prices. They also gave undertakings to the court that they would not engage in price fixing contrary to Section 4 (1) of the Competition Act.

Korea

Currently, the Monopoly Regulation and Fair Trade Act (MRFTA), Korea's competition law (administered by the Korean Fair Trade Commission- KFTC), does not provide the exemptions in the road transport sector. As such, the services are covered by the MRFTA just as other industries. However, there is in effect little room for application of MRFTA, since the sectoral regulator has imposed far reaching regulations regarding entry, prices, operations etc. All the same, KFTC has been paying keen attention to

reforms, focusing on anti- competitive conducts that may arise in the process of liberalization.

In regard to road freight services, there were 10 Merger and Acquisition cases between 1997 and 1999. In examining the proposed business combination, the scope of the geographic market was determined to be national. This was because road freight services offer nationwide coverage without restrictions on operating territories. All the cases concerned involved negligible market shares and had no anti-competitive effects. Thus, the KFTC did not ban or propose remedies concerning these business combinations.

Norway

The Competition Act of 1993 applies to undertakings in road transport in the same way as undertakings in other sectors in Norway. The Norwegian Competition Authority (NCA) has however, granted exemptions in number of individual cases. Most of the individual exemptions granted have been given to associations of companies that are small with respect to the market, created for the purpose of bidding on large contracts. The exemptions are usually granted because cooperation enhances competition or because its impact on competition is negligible.

The NCA has uncovered horizontal arrangements in the road freight sector; though no formal sanctions have been imposed. One case involved removal companies, allegedly having reached a nationwide agreement on minimum prices. Another case involved a price fixing agreement between three truck drivers situated around the city of Bergen.

Malaysia

The haulage (trucking) industry was liberalized in 1997 to increase the efficiency of the industry. With this liberalization, the number of goods haulage firms increased from 5 in 1997 to about 60 in 2003. The incumbent five firms were members of the Containers

Hauliers Association of Malaysia (CHAM) which had a total number of six firms in 2003. Most of the new entrants (about 30 firms) were members of another association, namely, the Association of Malaysian Hauliers (AMH). Subsequent to the continual entry of new firms into the market since 1997, a price war broke out in 2000. By 2003, container haulage rates had fallen between 20 to 40 percent. To end the price war, the two industry associations met to agree to stop giving rebates to their customers from 1st January, 2004. Since prices were regulated and the absence of a price war meant that prices would be at par with price ceiling set by the Commercial Vehicle Licensing Board (CVLB) , the question arose whether the industry association seemingly “explicit collusion” could be construed as an anti-competitive practice. **The industry regulator, CVLB did not intervene in the matter even though it set price ceilings for the industry.** The market share of the association members was fairly significant with CHAM members’ market share in container haulage being 55 per cent. According to Lee (2004), the failure to address competition related problems in these sectors reveal the insufficiency and inadequacy of sectoral regulatory reforms in Malaysia.

National

Indian Case laws / studies

We now report cases relating to RGTI in India, which came up before the MRTPC over a period spanning 1984 to 1994. All these cases related to restrictive and unfair trade practices in the context of RGTI. This description given below is based on a limited reading and understanding of relevant MRTP Commission papers and a book by Dugar (1997).

1. In 1977, an enquiry (RTP Enquiry No. 32 of 1977) was instituted against Truck Operators Union (*Place/ location not mentioned in Dugar, 1997*). It was held that the Constitution of the Union enabled the existing members to keep out new entrants from the market of transportation of fruits and vegetables on arbitrary grounds. It was alleged

before the Commission that if any transporter attempted to enter the market and offered to transport fruits and vegetables, he was restrained to do so by force. While ordering modification of the impugned clause of the constitution of the Union, a 'cease and desist' order was passed against the Union, inter alia, prohibiting it from stopping any truck operator, whether member of the Union or not, from entering the fruits and the vegetable market and offering to undertake transportation services (Order No. 20th February, 1978).

2. In 1982, an enquiry (RTP Enquiry No. 10 of 1982) was instituted against the Bharatpur Truck Operators' Union, Naimandi, Bharatpur, Rajasthan and its members (Respondents).

The allegations related to the following practices:

- (a) Acting in concert in fixing, maintaining and increasing freight rates.
- (b) Forcing the customers to hire trucks from members of the Union only for transportation of goods at rates which were ex-orbitant, unreasonable and disproportionate to the services rendered.
- (c) Restricting non-members from lifting the goods from within the city of Bharatpur and its surrounding areas.

Accordingly, the following issues were framed for the trial:

- (i) Whether the respondent is a trade association and if so whether the respondent has been indulging in the trade practice / practices mentioned in the Notice of Enquiry dated 20.10.1982.
- (ii) If the answer to issue No.(i) is in the affirmative, whether the said practice/ practices are restrictive trade practices within the meaning of section 2 (0) of the Monopolies and Restrictive Trade Practices Act, 1969.
- (iii) To what relief, if any, are the parties entitled to?

In regard to the first issue, the Commission held that the operators' union was a trade association (as defined under Section 2(t)) and not a trade union thereby not being covered by the exemption set out in Section 2 (d). As to the second sub issue of the first issue, it was decided against the Respondents while holding that they were indulging in

all the three restrictive trade practices such as price fixing, maintaining and increasing freight rates. On the second issue also, the Commission decided against the Respondents and directed them to cease and desist from restrictive trade practices, which were the subject matter of the enquiry. The Respondents were also directed to file an affidavit of compliance within three months from the date of the order (dated 24th Aug., 1984).

3. In 1983, an enquiry (RTP Enquiry No. 25 of 1983) was instituted against the Rohtak Public Goods Motor Union and its office bearers (Respondents) on a complaint received from the President of Rohtak Mandi Foodgrain Dealers' Association. The allegation was that the Respondents did not allow non Union truck operators to carry goods and they even indulged in rowdyism. As a result, customers were forced to use trucks from the Union which, they claimed, charged higher rates.

Accordingly, the following issues were framed for the trial:

- (i) Restricting non members from lifting goods thereby hampering free flow of trade.
- (ii) Restricting lifting of goods by non-members up to a permissible capacity with the result that customers had to incur extra expenditure which imposed unjustified costs and restrictions on the users of such services.

The Respondents did not appear to contest the issues contained in the Notice of Enquiry as a result of which *ex-parte* proceedings were ordered against them. The evidence before the commission showed the following:

- (a) the Respondents prevented non-member operators to carry on their transport business freely with a view to eliminate competition in the market in the transport business and to achieve their object they resorted to man-handling and assaulting non-member truck operators,
- (b) whereas the member of the truck operators' union were permitted to carry FTL from Rohtak, others who were not members of the respondent Union were not allowed to carry more than 20 quintals of load with the result that

they were at a disadvantage in competition with their brethren truck operators who were members of the Union, and

- (c) all this resulted in compelling the customers to engage the trucks for transportation of goods only through the respondent Union and pay whatever rates they demanded.

The Respondents were held to be guilty and a 'cease and desist' order (dated 25th Aug. 1984) was passed by the Commission.

4. In 1986, two enquiries (RTP Nos. 29 of 1986 and 109 of 1986 in RTP No. 1/87) were instituted against the Bhilwara District Trust Transport Union, Bhilwara and its office bearers (Respondents). The allegations filed by the Mewar Chamber of Commerce and Industry, Bhilwara related to restrictive trade practices being followed by the Respondents. The preliminary findings of the Director General of Investigation and Registration (DGIR) of the MRTPC revealed the existence of these practices. Accordingly a Notice of Enquiry was issued to the Respondents. It was observed that even when DGIR was conducting preliminary investigations the Respondents continued to indulge in such practices as mentioned above.

The Respondents contested the issues raised in the Notice of Enquiry. They denied indulgence in restrictive trade practices. They admitted that freight rates had been displayed at their Union office but that was for the guidance of the public with a view to safeguard them against exploitation and overcharging. They also denied the contention that the rate list was the outcome of any concerted action on the part of its members.

Having formed a prima facie case against the respondents, the Commission issued an interim temporary injunction restraining the Respondents from carrying on the restrictive trade practices (dated 10th May, 1988). **(Note: We have not been able to look at the final order relating to the Enquiry).**

5. In 1983, an Enquiry (RTP Enquiry No. 30 of 1983) was instituted against India Truck Union, Mahwa, Rajasthan and its office bearers (Respondents). The allegations were as follows:

- a. Forcing customers to hire trucks from members only.
- b. Preventing non –members from loading goods.
- c. Imposing and charging an extra levy for supply of trucks for certain destinations.
- d. Maintaining transport charges at unreasonable levels by limiting supply of services.

While the Respondents admitted to the first three charges, the last one was proved to the extent that the Respondents had been fixing, maintaining and revising (increasing) freight rates. Accordingly, the Commission passed the ‘cease and desist’ order (dated 11th Feb, 1989) against the Respondent Union. It may be useful to note some observations of the Commissions in this regard. One observation related to the contention of the Respondent that its impact was minimal in terms of the area covered. However, the Commission pointed out that the restrictions extended over the entire area in which the Respondent Union was operating as a result of which the impact of their practices could not be taken as marginal or nominal. Further, the fact that the union was associated with the Directorate of Agriculture and Marketing, Government of Rajasthan did not clothe the impugned restrictive trade practices with the authority of any law. This observation was made in the face of the contention that the Union was actively associated with a department of the State Government thereby being authorized by any law. In fact, it was pointed out that there was nothing to indicate that the rates fixed by the Respondent union had the approval of the State Government in the manner provided under Section 43 of the Motor Vehicle Act, 1939 (i.e., to say, under the directions of the State Transport Authority and duly notified in the Official Gazette, *inter alia*, in the interest of preventing un-economic competition among motor vehicles).

6. In 1987, an Enquiry (RTP Enquiry No. 1313 of 1987) was instituted against the Goods Truck Operators' Union, Faridabad and its office bearers (Respondents) against attempts at price fixation and indulging in restrictive trade practices. The evidence pointed out that the Union had in fact been attempting to eliminate competition in the market by fixing the freight rates without giving the liberty to the union members to negotiate individually. Further, the Union had not been allowing non-members of the Union to carry goods. Accordingly, a 'cease and desist' order (dated 13th Dec, 1989) was issued by the Commission.

7. Over the period 1988-89, Enquiries (RTP Nos. 402 of 1988, 97, 98 and 99 of 1989) were instituted against the Motor Lorry Owners and Operators' Union, Pithapuram (A.P.) and three other Lorry Owners' Associations (Respondents). It was alleged that the four Lorry Associations at four places in Andhra Pradesh were resorting to restrictive trade practices by acting in concert in fixing the freight rates and dislocating the public distribution system in Andhra Pradesh, *inter alia*, by not allowing the transport contractors of the Civil Supplies Corporation to hire other lorries at the existing market rates. Further, the Associations were not allowing the transport contractors to place even their own lorries in the sugar factories and were forcing transport contractors to hire lorries from its members on the rates fixed by it. In the absence of specific allegations relating to restrictive trade practices and in the absence of clear cut evidence relating to price fixation by the Associations, the Commission held (order dated 3rd dec, 1990) that it was not possible to issue any order restraining the Respondents from indulging in any particular restrictive trade practice.

8. In 1994, Enquiries (RTP Enquiry Nos. 97,101,103 of 1990) were instituted against the Taraorimandi Goods Transport Union, Taraori, Karnal, Haryana and its office bearers (Respondents). The complainants who were dealers in paddy and rice alleged that the Respondent Union was not allowing any transporter to lift goods in the mandi unless they became members of the Union and even owners of trucks were not allowed to load the trucks. The Union contended that the complainants were not engaged in the transport business but carried their own goods and that even if it was established that the alleged

practice did exist, it would not affect practice. The Commission held that prohibiting rivals from entering into a particular territory, completely eliminates the possibility of competition in that area and was therefore highly prejudicial to public interest. The Commission was of the firm view that prohibitory tactics adopted by traders excluding rivals from entering into what they regarded as their exclusive territory of business was one of the worst examples of restrictive trade practices. The fact that the complainants themselves were not engaged in the business of transport made little difference as once the Respondents were left free to drive out non-members from entering their exclusive territory there would be no chance of any competition surviving among truck operators in that area.

In the result, a 'cease and desist' order was issued against the respondents in all the three Enquiries prohibiting them from engaging in the restrictive trade practices in future (order dated 28th March, 1994).

9. In 1990, an Enquiry (RTP Enquiry No.98 of 1990) was instituted against Truck Operators' Union, Karnal, Haryana and its members (Respondents). The allegation was that the Union compelled non-member Truck Owner to become member of the Union failing which the Union would prevent manufacturers from using their trucks in Karnal district. This, it was claimed, was preventing, distorting and restricting competition and obstructing flow of capital in the stream of the production. Based on response to the Notice of Enquiry relating to the concerned issues, the basic issue for examination related to whether the Respondent had indulged in restrictive trade practices.

From the evidence produced on behalf of the complainant and the DGIR which was not otherwise rebutted by the Respondents, the Commission was of the considered view that the Respondents had indulged in restrictive trade practices. Accordingly, a 'cease and desist' order was issued against the Respondents (order dated 9th Sept., 1994).

SECTION 3

Freight Rates, Operator Costs and Industry Profitability

According to World Bank (2005), India has achieved a highly competitive, low cost RGTI for basic services with freight rates being among the lowest in the world (see Table 1).

Country	Average Unit per ton Km. (Rs)
Pakistan	0.75-1.05
India	0.95-1.35
Brazil	1.20-2.20
United States	1.25-2.50
Central Asian Republics	1.75-4.25
Australia	1.75
China	2.00-3.00

Source: World Bank 2005

Section 67 (1) of the MV Act, 1988 gives power to a State Governments to issue directives to the State Transport Authority (STA) regarding fixing of freight and fare rates. Under Section 79 (2) (iv) of the Act, the Regional Transport Authority (RTA) granting a public carrier permit, may provide that goods shall be carried at specified rates. However, the States have neither had an objective basis for fixation of freight rates nor any separate agency for enforcing freight rates (whenever it was attempted). Thus, despite the provision in MV Act regarding fixing of fare and freight, no definite mechanism has been evolved for their determination and enforcement. Consequently, at present, there is no State which has fixed the freight rates for the industry. We now turn to an examination of freight rates and operator costs in the Indian context with a view to assessing the profitability of operations.

Part I

Analysis of Freight Rates

In this Part of the Section, we attempt to examine in some detail freight rates that have been prevalent on important point to point movements between Mumbai and cities such as Ahmedabad, Delhi, Kolkata, Bangalore and Chennai over the period 2002–05. These rates are those obtained by the operators and not the ones paid by the Consignor / User and are rates for a FTL. According to local market sources, these are the rates that are normally quoted in some of the daily newspapers such as *The Economic Times*, *Business Line* etc. We have obtained these figures of rates from the information posted on a website namely, www.infreight.com. Another website namely, www.infobanc.com/logtruck.htm also gives truck freight rates between the major cities though the site is not being updated on a regular basis. Given below in Tables 2, 3 and 4 are rates for the years 2002, 2005 and 2006 respectively (mid year).

From	To	Freight Rate (Rs./ Truck)	Distance Km	Freight rate (Rs./ ton km)
Delhi	Mumbai	12000-12,600	1,408	0.97
Delhi	Kolkata	14,400-15,000	1,474	1.11
Mumbai	Delhi	14,000-15,000	1,408	1.14
Mumbai	Kolkata	22,000-23,500	1,987	1.27
Mumbai	Chennai	14,500	1,367	1.18
Chennai	Delhi	25,020	2,095	1.33

Source: World Bank 2005

From	To	Freight Rate (Rs./ Truck)	Distance (Km)	Freight rate (Rs./ ton km)
Mumbai	Delhi	19071	1408	1.50
Delhi	Mumbai	13000	1408	1.03
Mumbai	Ahmedabad	6500	551	1.31
Ahmedabad	Mumbai	8200	551	1.65
Mumbai	Kolkata	25500	1981	1.43
Kolkata	Mumbai	20000	1981	1.12
Mumbai	Chennai	18000	1329	1.50
Chennai	Mumbai	14800	1329	1.24
Mumbai	Bangalore	13714	998	1.53
Bangalore	Mumbai	11200	998	1.25
Mumbai	Aurangabad	*6000	400	1.67
Mumbai	Ahmednagar	*4500	320	1.56
Mumbai	Belgaum	*8500	499	1.89
Mumbai	Satara	*4000	280	1.59

Source: www.infreight.com

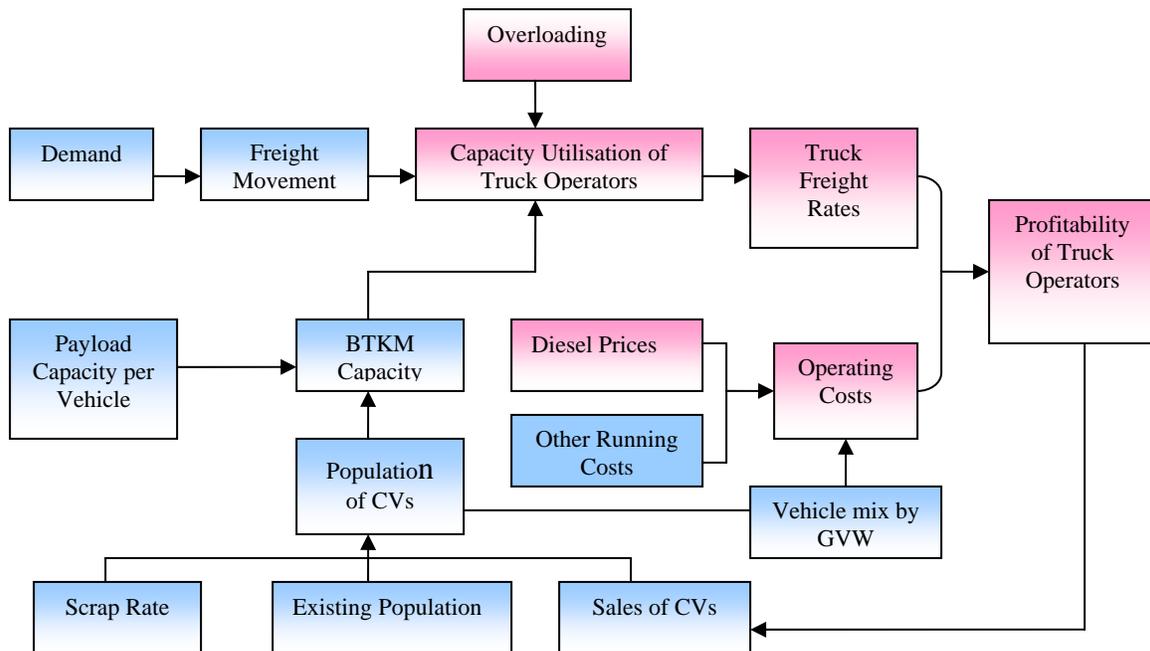
*These are figures derived from the surveys

From	To	Freight Rate (Rs./ Truck)	Distance (Km)	Freight rate (Rs./ ton km)
Mumbai	Delhi	19000	1408	1.50
Delhi	Mumbai	15498	1408	1.22
Mumbai	Ahmedabad	6498	551	1.31
Ahmedabad	Mumbai	N.A	551	N.A
Mumbai	Kolkata	25992	1981	1.46
Kolkata	Mumbai	24480	1981	1.37
Mumbai	Chennai	18999	1329	1.59
Chennai	Mumbai	18999	1329	1.59
Mumbai	Bangalore	14994	998	1.67
Bangalore	Mumbai	N.A	998	N.A

Source: *Business Line*, June 19, 2006.

The objective behind this examination is to look at the trend in movement – in terms of increase or decrease in freight rates and then examine profitability of operators. Figure 1A below shows the interrelationships between various factors driving operator profitability.

Figure 1 A- Profitability of Truck Operators Truck



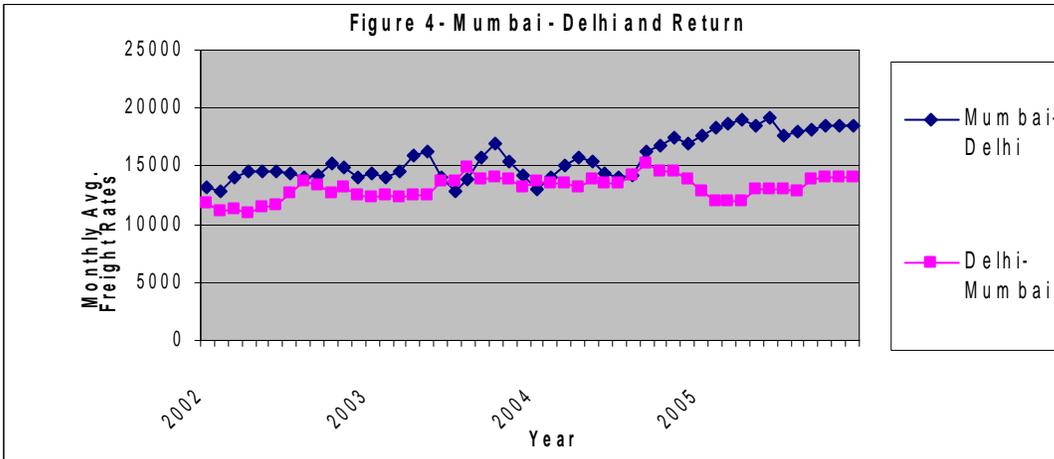
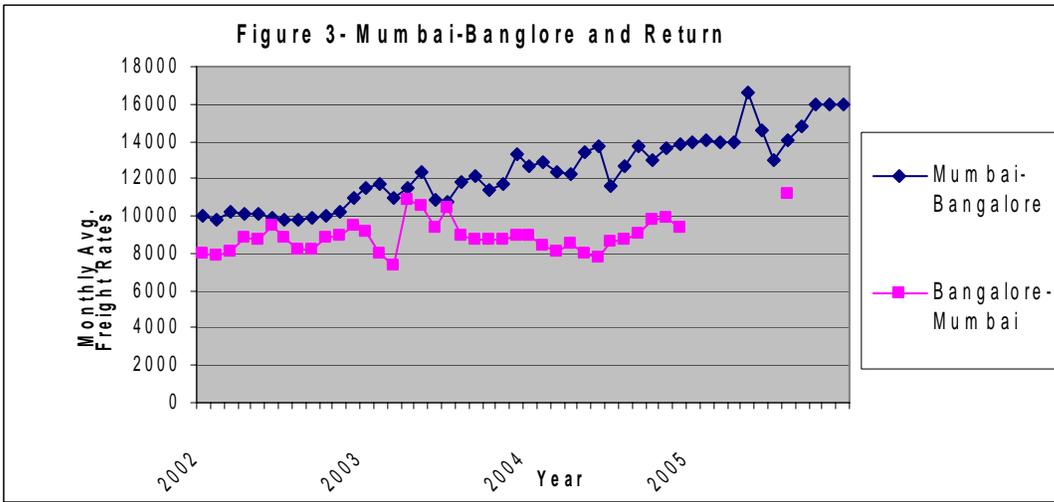
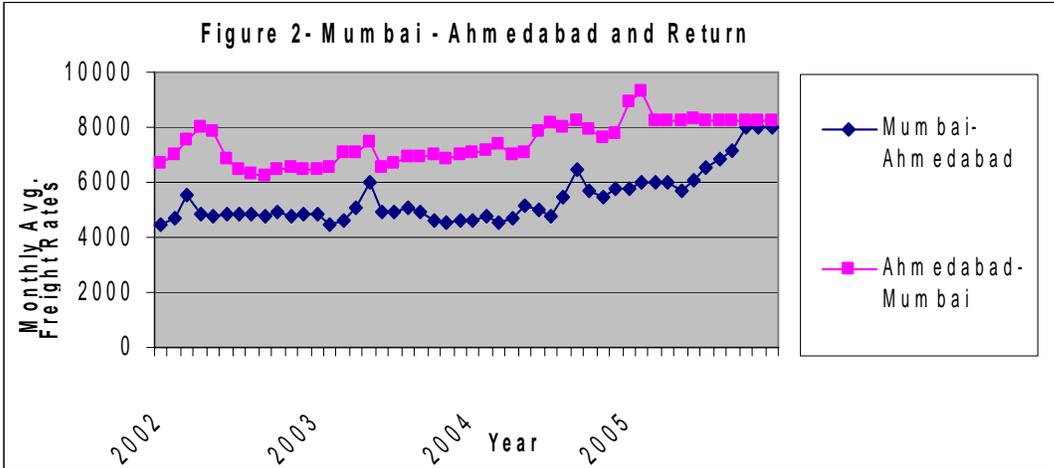
Source: Deloitte Study (2003)

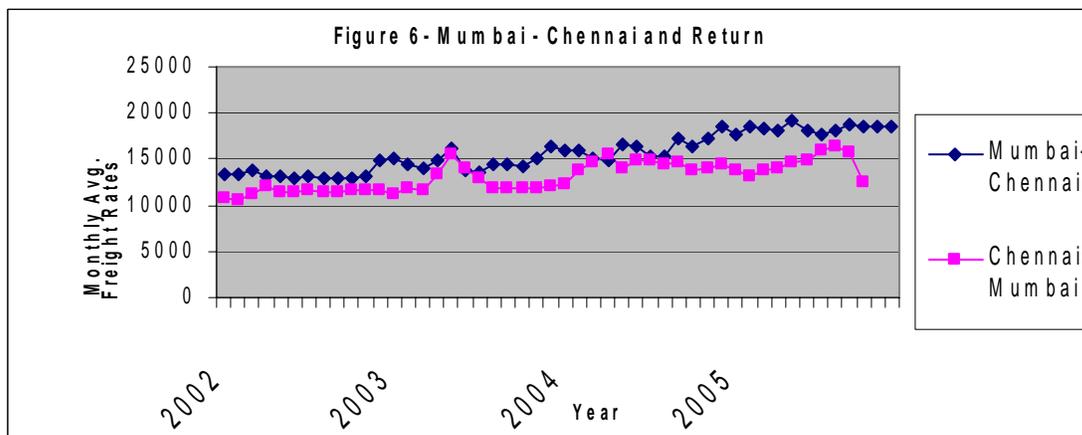
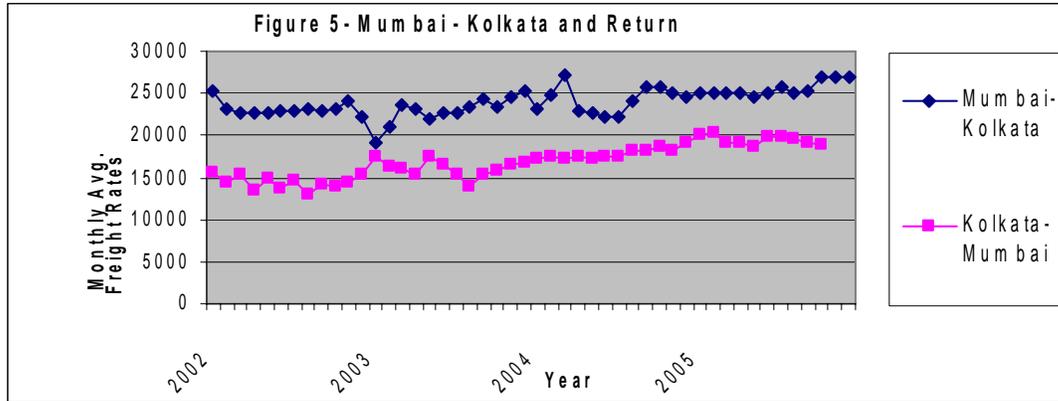
One point of view that has emerged over a period of time is that there has been only a gradual (though some what consistent) increase in freight rates in India due to the entry of a large number of operators. With increasing fuel costs, it is claimed that profitability has decreased considerably with many operators just able to break-even. It may be mentioned that the rate of inflation during the past few years has been hovering around 4-4.5 per cent on an annual basis.

Trends in Freight Rates

Given below are the trends in freight rates quoted from Mumbai to

1. Ahmedabad and return (Figure 2)
2. Banglore and return (Figure 3)
3. Delhi and return (Figure 4)
4. Kolkata and return (Figure 5)
5. Chennai and return (Figure 6)





Note: The numbers for these figures are monthly averages for the years 2002-05.

From Figure 2, which gives the Mumbai- Ahmedabad and return rates, it is observed that the return rates have been consistently higher than the onward rates till mid 2005 after which there has been an increase in onward rates with a convergence towards the end of the year. The higher return rates in the past have been attributed to lesser availability at Ahmedabad indicating a much narrower supply base when compared to Mumbai. Given a fairly large market for local transport (State) movement, it is pointed out by some observers that there are very few locally available national truck-permit holders which possibly explain the low level of supply for inter-State movement. From the point of view of growth rates, it was observed that in both the directions freight rates have grown at just about 1 per cent (taken on a monthly basis) with the figures being 10 per cent and 6.5 per cent for the onward and return trips respectively.

In the case of the Mumbai- Bangalore route, the rates (seen in Figure 3) have been more buoyant as reflected by the compounded annual growth rate of nearly 13 per cent though the return rates have been growing much less (2-3 per cent only). It must be admitted here that the latter growth rate has been computed only for three years due to non-availability of data for 2005.

Figure 4 gives the trend for the Mumbai – Delhi route and return. It can be seen that there has been a steady increase in the onward direction with the return reflecting a much lesser increase. While the annual growth rate for onward direction is nearly 8 per cent, it is only about 2.5 per cent in the reverse direction. This may reflect reverse trips to be more in the nature of return trips while imports constitutes a major demand as far as onward movement is concerned. This is quite the reverse when we observe the trend in the Mumbai – Kolkata and return direction (Figure 5). Though freight rates are higher on onward movements, the growth rate is about 3.5 per cent compared to more than 10 per cent on the return movements, rates for which were lower by nearly 60 per cent in 2002 but which had narrowed to 42 per cent in 2005. Figure 6 gives the trend for the Mumbai – Chennai route and return. In this case the growth of freight rates is higher at nearly 11 per cent and 9 per cent respectively.

In the case of intra-State movements, the rates are not very different when considered on a unit basis though the element of distance does make a difference. For example, for a distance of 500 kms., the rate for a FTL is around Rs.5000 – 5500/- with the rates being proportionately higher for a lesser distance and lower for a longer movement.

We now turn to an examination of operators' costs with a view to understanding the profitability of trucking operations.

Part II

Analysis of Operator Costs

In this Part, we attempt to examine, in some detail, costs of operations of a truck operator. The exercise has been done for a standard 16 tonne GVW (Gross Vehicle Weight) Truck.

Cost of operations of a truck can be categorized into the following:

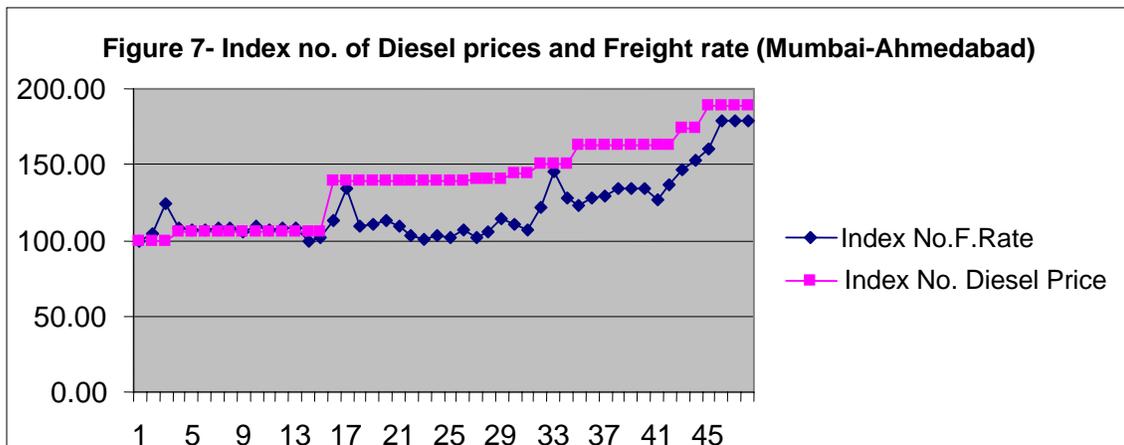
- a. Fixed Costs mainly comprise of interest payments, crew charges, administrative overheads, maintenance repairs, wayside expenses and amounts by way of contract amount, insurance payment, road taxes and permit charges.
- b. Variable Costs mainly consist of cost of fuel and lubricants, tyres, spare parts etc.
- c. Terminal Costs and Line Charges relate to commissions paid, loading and unloading charges.

Given in **Annexure I** is a format of the model of cost of operations of a truck specified the way it is in Microsoft Excel. The model provides for an estimation of base year (2005) relationships in terms of the various cost categories.

The data for this analysis is based on surveys conducted for the purpose of the study between November 2005 and May 2006. We are aware that interest rates on borrowings for vehicles have come down substantially in the past decade. Though the rates have fallen much more in the case of nationalized banks, since the dependence on these institutions is only marginal, the rates that we have considered in the analysis range between 12 and 14 per cent – currently being charged by co-operative banks, non-banking financial companies, etc. With some dependence on private sources of financing continuing, the cost implications can be more significant in certain cases. Almost all the truck operators reported that finance is easily available given that the operator has a license, the required permit and the registration of the vehicle in order. In regard to insurance, under the MV Act *Third Party Liability Risk* is necessarily to be covered. A policy covering this risk is called the *Act Only Policy*. Most of the operators who were

interviewed admitted that they provided only for insurance relating to risk of damages to the vehicle called the *Own Damage Cover* and not for the third party coverage. As for the number of national (number of states) permits, an operator normally obtained permits for three or four States besides the home State.

Diesel prices have increased substantially during the last ten years or so. While in 1995-96 it was Rs.7.40 per litre, it went up to nearly Rs.20 in 2002 and by December 2005 it reached a level of Rs.38. From Figure 7, we can compare the trends in freight rates, say, between Mumbai and Ahmedabad and diesel prices (in Mumbai) over a period 2002-05.

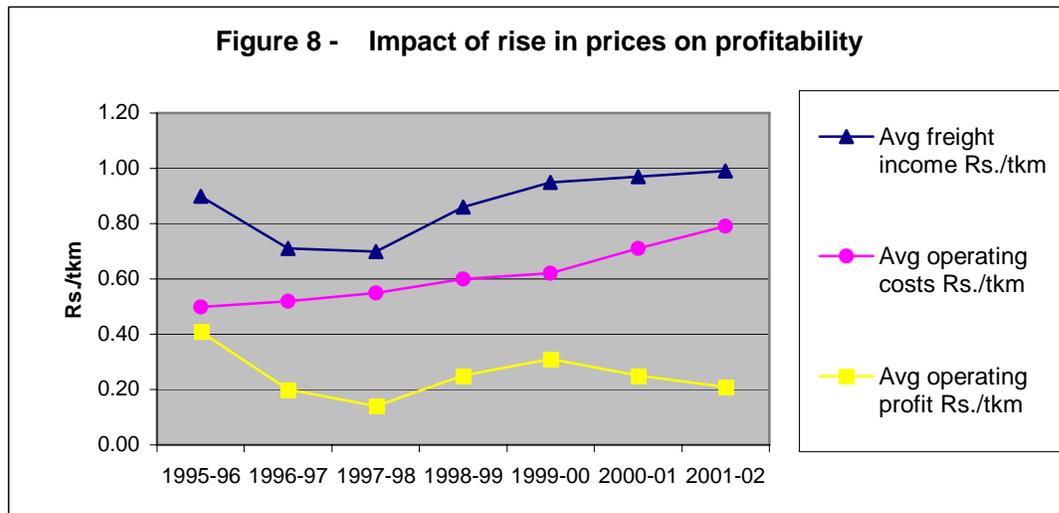


The annual compound growth rate of diesel prices has been around 16 per cent. For the purposes of comparison, both the series have been converted into indices with January 2002 as the base month. It is seen that for the first one and half years of the period diesel prices moved at the same pace after which they have been much higher for the rest of the period.

As far as terminal and line charges are concerned, they mainly relate to loading and unloading charges and facilitation payments. It was reported that the loading and unloading charges are nearly 75 to 100 per cent more in Mumbai compared to Pune and Satara. Facilitation payments involved those required to expedite clearances and / or to

avoid payment of taxes and fines. According to many operators, this may normally constitute 10 to 15 per cent of the freight revenue realised.

According to the operators, the profitability of truck operations is said to have been adversely impacted due to increasing average operating cost (mostly fuel) and falling or flat freight rates. See Figure 8 below



Source: Deloitte (2003)

Given this basic analytical model, an attempt has been made to understand the profitability of operations for average freight rates on the **different routes** (considered above). This has been done on the basis of simulation exercises, which take into account varying payloads, different distances in terms of total annual operations along with some deviations in the interest charged on truck loans.

In terms of payloads, we have taken these to be 9, 12 and 15 tonnes while in terms of distances we have considered annual movements of 60,000Kms. 75,000Kms. and 90,000Kms. Given below in Tables 5,6,7,8 and 9 is the profitability of operations on different routes from Mumbai, considering different combinations of payloads and annual movements. Profitability is represented in a slightly different way in Figures 9, 10 and 11 that are presented after Tables 5 to 9.

Table 5: Profitability on Mumbai-Ahmedabad Route (in %)

Mumbai-Ahmedabad	9 tonnes	12 tonnes	15 tonnes
60000Kms.	-0.45	-0.27	-0.09
75000Kms.	-0.37	-0.16	0.05
90000Kms.	-0.30	-0.07	0.16

Table 6: Profitability on Mumbai- Bangalore Route (in %)

Mumbai- Bangalore	9 tonnes	12 tonnes	15 tonnes
60000Kms.	-0.42	-0.22	-0.03
75000Kms.	-0.33	-0.11	0.12
90000Kms.	-0.26	-0.01	0.24

Table 7: Profitability on Mumbai- Delhi Route (in %)

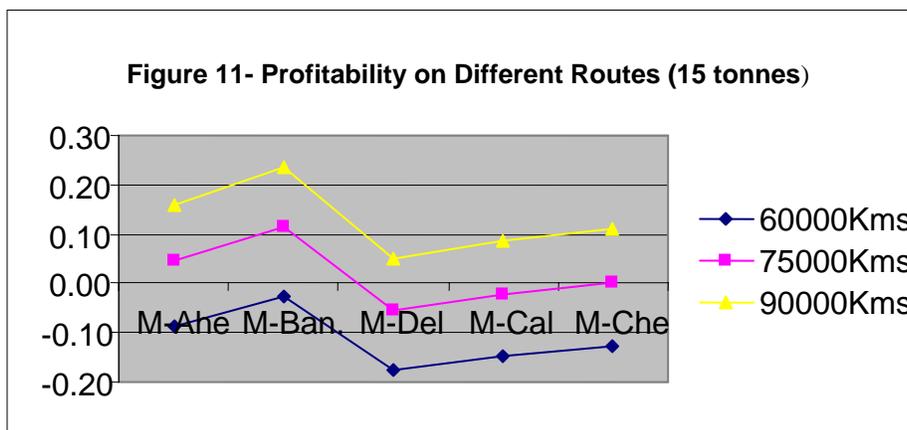
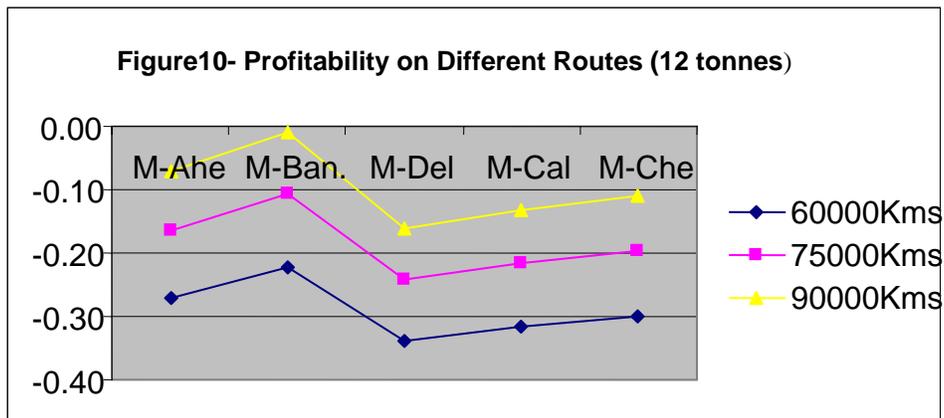
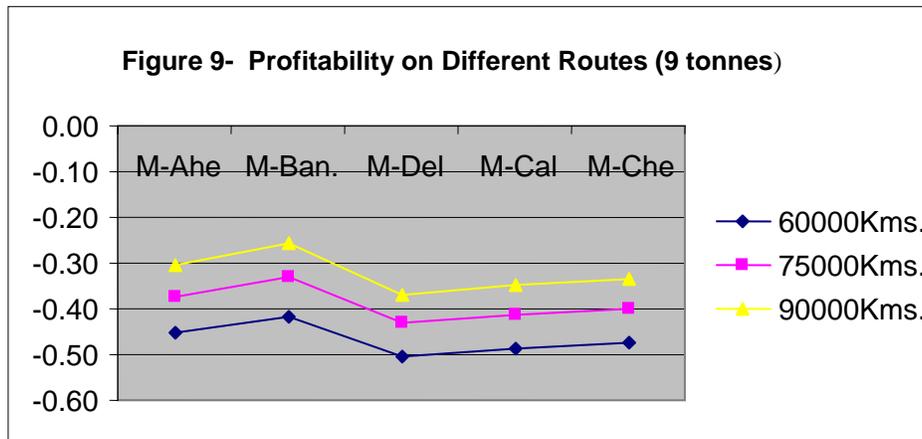
Mumbai- Delhi	9 tonnes	12 tonnes	15 tonnes
60000Kms.	-0.51	-0.34	-0.18
75000Kms.	-0.43	-0.24	-0.05
90000Kms.	-0.37	-0.16	0.05

Table 8: Profitability on Mumbai- Kolkata Route (in %)

Mumbai- Kolkata	9 tonnes	12 tonnes	15 tonnes
60000Kms.	-0.49	-0.32	-0.15
75000Kms.	-0.41	-0.22	-0.02
90000Kms.	-0.35	-0.13	0.09

Table 9: Profitability on Mumbai- Chennai Route (in %)

Mumbai-Chennai	9 tonnes	12 tonnes	15 tonnes
60000Kms.	-0.48	-0.30	-0.13
75000Kms.	-0.40	-0.20	0.00
90000Kms.	-0.33	-0.11	0.11



It is observed from the Tables given above that only for an aggregate distance of 90,000Kms. (around 300kms. per day) and loading to the extent of 15 tonnes, there is a

reasonable return on almost all the route except to Bangalore in which case the return is almost double. Our surveys of truck operators indicate that, on an average, a truck moves around 250-300 Kms. per day especially when they are involved in inter-regional movements. Given the lower limit of moving around 250Kms. (or even slightly less) there is a financial loss. Even with a possibility of covering a slightly greater distance, say, 275 kms., there may be only a very modest profit level if not a break-even situation for the industry. This was also pointed out by World Bank (2005). On a comparison of freight rates and estimated costs, it was then suggested that only in a competitive market, one could expect freight rates to vary little from costs. It was also pointed out that Pakistan's trucking industry was facing a similar situation. Given the cost profile, it is noted that there is provision to meet the schedule of repayment of the loan obtained to buy a truck. But it is seen that depreciation is not provided for, in which case the operator in most cases is not in a position to replace the vehicle.

The question arises: How does an operator survive? To do so, the operator is required to overload – a common feature on Indian Highways. Though the MV Act is against overloading (the statutory provisions dealing with overloading are set out in Sections 113,114,194 and 200 of the Act), the provisions for the compounding of this offence have encouraged the continuance of overloading at least till very recently. The MV Act empowers the MOT, Government of India to specify maximum GVW and maximum safe axle weight of all transport vehicles. Accordingly, the Government laid down these specifications in the fifties with provision for some ad hoc increase since the sixties. The legal axle load limit in India is currently 10.2 tonnes as provided under the Section 58 of MV Act of 1988 (as amended in 1996). However, most Indian highways have been constructed for an axle load of 8.16 tonnes, the legal limit before the 1996 amendment. AITD (1999) had observed that a majority of goods transport vehicles that are two axle rigid vehicles are overloaded beyond the prescribed GVW. The study also pointed out that the consignor of bulk commodities such as fertilizers, steel, cement etc. were overloading their vehicles in order to get economies in buying of freight services. Thus, the study noted that there has been a tendency not only on the part of truck operators but also on the part of consignors to overload vehicles without regard for the

law. However, World Bank (2005), on the basis of an analysis to assess optimal axle load on two road sections in India, concluded that the present legal axle load limit of 10.2 tonnes is acceptably close to optimality. It is obvious that any excess beyond the legal limit could have serious implications for the deterioration of roads, and for the funding required to keep roads maintained at an acceptable level.

Given the pressures on margins, it is very clear that it is only with a certain level of overloading that operations turn out to be viable. This is a wide spread practice with axle loads well in excess of the legal limit – a practice aided significantly by laxity of enforcement of axle load controls by the concerned regulatory authorities in different States. Though it must be noted that a higher level of movement to the extent of 108000 or even 120000 Kms. could enable operations to be viable with the registered payload (simulation exercises relating to these figures revealed the trend towards viability of operations). Given a situation where overloading can no longer be expected to be a possibility (as a result of Judicial intervention- judgment of Supreme Court on overloading, November 9, 2005- and, of course, its strict implementation), it is more likely that the overall demand for trucking services (in terms of vehicles) at any point of time would increase thereby shifting the demand curve for such services. This can, no doubt, result in a higher freight rate in the market. But the issue is: whether this higher realization would eventually reach the operators? It is also a moot question whether a higher level of movement by trucks on a daily basis is possible given the existing barriers to free trade flows on an inter-State basis. In order to understand these issues, we examine, in the next Section, the structure of the industry in terms of the market, its players, the relationships and the implications for the different players. Our entire analysis is based on surveys mainly conducted in the Mumbai Region and to a small extent in Goa and Satara. Further, in the following Section, an attempt has been made to examine the policy and regulatory impacts on inter-State movement, which ultimately affect competitiveness on the domestic as well as international fronts.

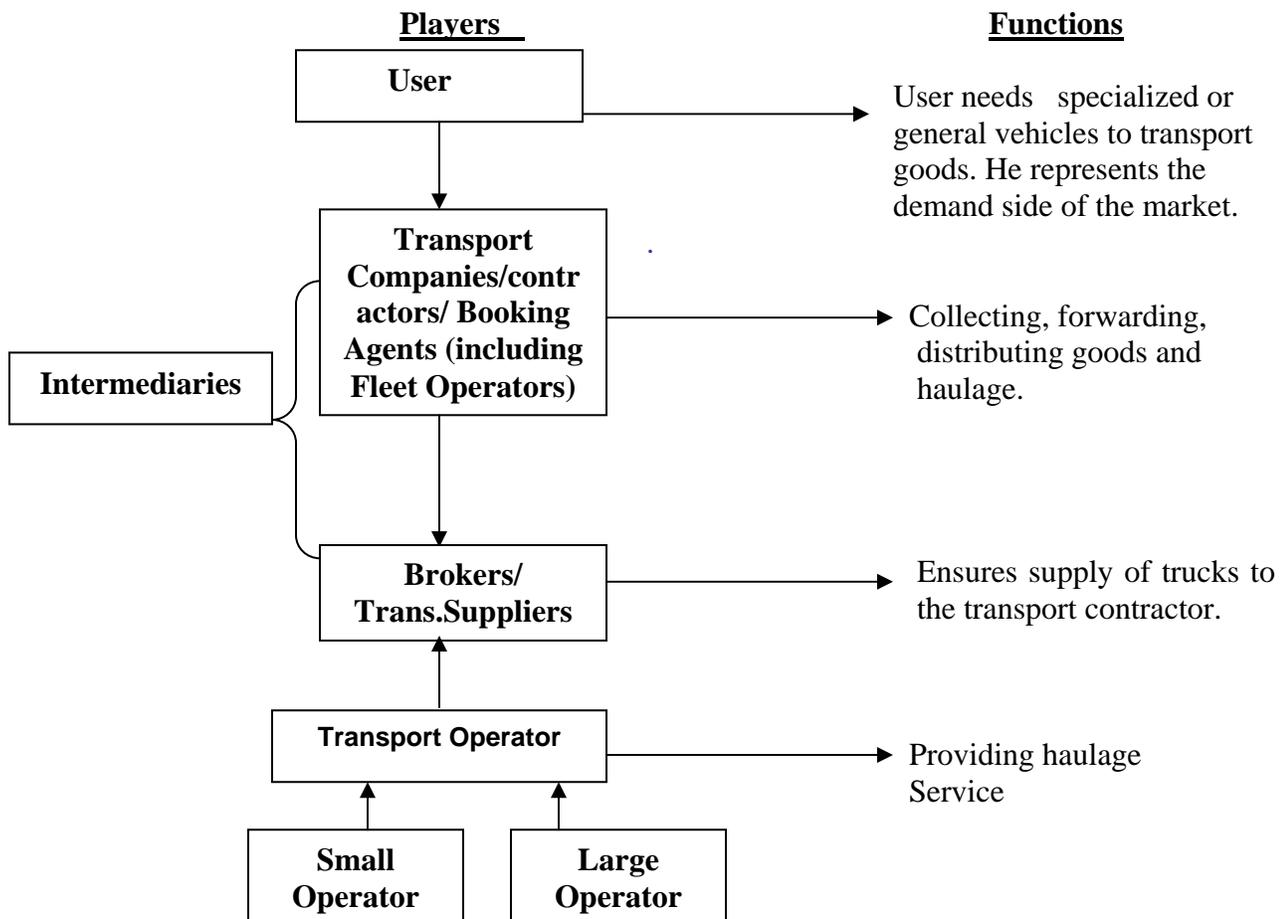
SECTION 4

The Industry – Its Structure, Market Surveys and Analysis Part I

The Industry Structure: the Market Players

The structure of the road goods transport industry in India is very complex as it has always been identified (and continues to be so) as a system comprising of many players in the field which include among many but mainly the transport operators (who could be small or fleet operators providing the real haulage services), the user/ consignor (constituting the ultimate demand for services), the intermediaries – booking agents / transport companies (who could be operators also) and brokers (who could be placed on either side of the booking agents and normally work for a commission). Figure 12 gives the most general picturisation of the structure of the industry in terms of the market players and their functions.

Figure 12- Market Players and their functions



Users: The users of road goods transport are the manufacturers, distributors, retailers of goods and the general public who are typically expected to represent the demand side of the market. Their choice of road transport, it appears, is influenced by a number of considerations including the inability of its main competitor, namely, the railways to provide wagons for loading on time. Above all, a relatively better customer orientation also provides the cutting edge. This gets reflected by lower transit time, reliability, etc. though freight rates may be marginally or even much higher.

Intermediaries: The intermediaries seem to play a significant role in the provision of road goods transport services. These can be normally of two categories, namely,

a) Booking agents/Transport companies/transport contractors: Booking agents are firms or persons who accept and store goods, both parcels and bulk and arrange for their movement through operators. This agent is really the person who represents the demand i.e. he negotiates with and on behalf of the users. He is responsible for collecting, forwarding or distributing goods carried by goods carriages and also for cargo loss and damage claims while performing other customer service functions. In some cases, the agents own trucks and also function as operators. In addition to these services, the agents also advance money to operators (especially small ones) to help meet their working capital requirements and by discounting bills on unloading. As regards the volume of business handled by this category of intermediaries, it is generally accepted that they have a virtual monopoly of most inter-State and long-distance movement.

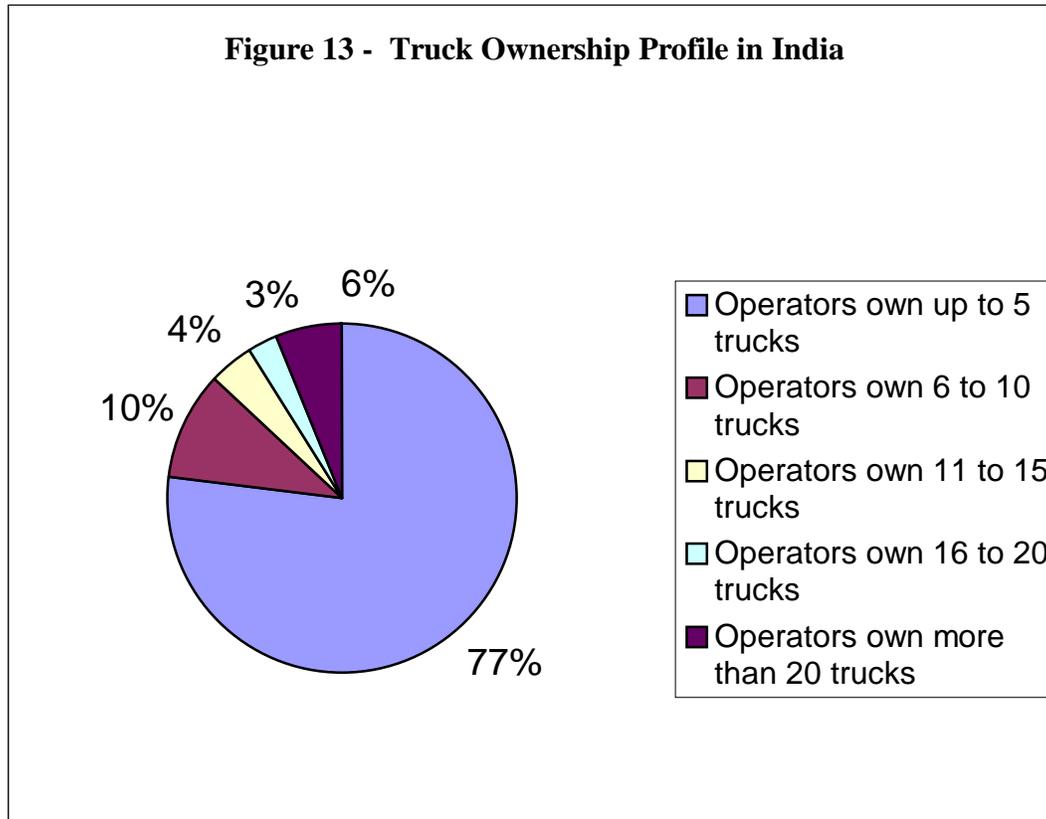
b) Brokers / Commission agents/ Suppliers of Vehicles: A Broker is normally expected to represent the supply side i.e. the truck operators, though in the past there have been booking brokers who have represented user interests for a commission. The broker takes a commission from the truck owners and ensures the supply of trucks to the transport company/booking agent. Given that the dependence on small operators is significant, there are issues of reliability of the operators, the movement etc. from the perspective of the User which is supposedly taken care of by the broker who normally is sought out by truck operators for loads. World Bank (2005) also observed the necessary role played by brokers in terms of ensuring a quality control on the reliability of the

operator and also as a means of facilitating prompt loading by the operators. Large fleet operators depend on these brokers for moving a certain volume of traffic over and above what their own fleet would permit.

In the course of our surveys and discussions with different players, we made an attempt to find out the number of intermediaries – brokers and transport agents/contractors- who operated in the Mumbai Region. Broadly speaking, there are three areas from which most of these intermediaries operate. A significant location is the Masjid Bunder/ Wadi Bunder/ P.D'Mello (city) area. This has traditionally been the area of their operations especially till the last decade since when only limited movement of trucks in the city (in terms of area and timings) have been permitted. With the shifting of some of the major wholesale markets to the New Mumbai area and emergence of warehousing facilities in New Mumbai and Bhiwandi, intermediaries have been operating from these two areas as well. Though the market in the city area (in terms of intermediaries) is still significant, their number in the other two areas is increasing fast. Though a provision for a major truck terminal has been made by the MMRDA at Wadala, the lack of facilities here has been a major factor inhibiting truckers from using this facility. As a result, the intermediaries have also not moved into this area from the city. MMRDA sources say that work on readying the terminal for use is in full swing and is expected to be over by end 2006.

As for booking agents/ transport companies, it estimated that there are around 5000 of them operating in the Mumbai region. About 1200 of these are formally associated with the Bombay Goods Transport Association (BGTA) as members. On further queries, we understand that most of these members were partnership or proprietary concerns with the remaining being private limited companies. Most of them are involved as booking agents only while a good number are operators with limited fleet capacity. Some of them are also custom agents and multimodal operators in addition to being booking agents. Custom agents are all registered with the Bombay Customs House and are all members (totaling 1162 presently) of the Bombay Custom House Agents Association.

Operators: Operators are expected to provide the services in terms of movement. The truck ownership profile in India as brought out in the CIRT study (1998) is given in Figure 13.



Source: Deloitte (2003)

The current ownership profile is somewhat different from what existed in 1971 (as given by NCAER, 1979) when the number of operators owning up to 5 vehicles constituted nearly 98 per cent of the fleet. The situation was only slightly different in the early 1990s when it was estimated that the 95 per cent of the vehicles belong to those operators who had less than 5 vehicles. This reflects a definite change in the pattern of ownership though it is still true that small owner operators dominate the same. We have not been able to get any idea regarding the relevant ownership profile in the context of vehicles registered in the Mumbai region. The number of goods vehicles in the region totaled nearly 200,000 in 2001. Given that there are a number of operators from other States plying their vehicles in the region, it was considered neither feasible nor necessary

to examine this profile. However, some figures are available in terms of the regular operators who ply their vehicles between JNPT and different locations. There are nearly 100 operators who own around 25 vehicles while there are 50 of them who own around 50 vehicles and 10 to 15 operators own around 100 vehicles. There are very few of them owning much more than 100 vehicles. These figures are based on discussion with some of the port based container truck operators.

Broadly, the operators can be categorized as follows:

1. Small Truck Operators: This category includes the single (or small truck operators owning 1-5 trucks) truck operator, who are very large in number. Entry barriers are low in the sense that: a) there are low capital requirements, b) Ease of availability of capital though at high cost, c) very little expertise required in terms of educational skills, and d) ease of obtaining driving licenses and permits. The presence of a large number of operators has led to a fragmented industry structure. Moreover, though the entry into this market is supposedly easy, information regarding availability of freight is a formidable problem. There is dependence on the brokers who give them business. The small operators, as can be seen from the above Figure, just provide the haulage service. The small operators are involved mainly in the physical movement of goods and depend on brokers and other fleet operators who, in turn, depend on booking agents for obtaining business. The small operators are not in a position to perform functions of aggregating, handling, delivering of cargo and marketing. These operators do not have the geographical reach and necessary infrastructure to tap business on a continuous basis and hence are forced to rely on brokers. They do not come into direct business contact with the users. This was the feedback from all most all the small operators interviewed so far. Though the exit option also seems likely in regard to these operators, it is observed it is a very difficult one since there is no alternative to this work. Therefore, there is hardly any scope for easy exit.

2. Fleet operators: The Large fleet¹ operators are small in number even in a region like Mumbai. The large fleet operators generally operate throughout the country, and have the

¹ A fleet usually comprises of a number of vehicles with varying payloads.

capacity to even transport a single parcel in any part. These fleet operators primarily work on a hub and spoke model. Large operators are also in a position to bid for movement contracts with companies. They utilize the services of the smaller operators when they need to have additional vehicles. Accordingly, the volume of business handled by them is normally several times more than the capacity of their own fleet. Some fleet operators do encourage their own employees to own trucks with some financial assistance but on the condition that these vehicles should be permanently attached to their fleet. It is understood that fleet operators attempt to derive considerable advantage in their interaction with users, brokers and others on the basis of their larger size and bargaining strength derived from size. But an emerging feature is the move from an asset-based model of operations to a non-asset based model.

The Industry Structure: The Market Makers?

The unique ownership profile has created middlemen who act as liaison agents. Our review of the sector in the Indian context revealed the sustained role of the middlemen. GOI (1966) pointed out the growing role of booking agencies which act as intermediaries and accept consignments for transport. GOI (1967) observed “the bulk of the trucks engaged in inter-city transport, which carry commodities which are comparatively and in smalls, have necessarily to depend on booking agencies” (p.48). GOI (1980) also observed the dependence of a majority of operators on goods booking agencies for their operations. Though the NCAER study (1979) found that more than 80 per cent of the small operators depended on booking agents, subsequent studies by CIRT (1994) and AITD (1999) revealed that about 70 per cent and 65 per cent of the operators depended fully on middlemen for their business. This is only one part of the story. Almost all the Reports/ Studies emphasize a significant role especially for the booking agents and a somewhat limited role for the broker (except for the CIRT study (1994) which reported a role for the broker in price fixation). In the context of booking agents, GOI (1980) specified three main types of their operations. The first relates to an agreement between the agent and the operator for a stipulated period during which the former arranges guaranteed freight at rates fixed in advance. Secondly, booking agents have day-to-day arrangements and offer goods to operators at prevailing market rates.

Thirdly, the agent acts an intermediary between the consignor and the operator charging commission from both. Having received representations that booking agents have been exploiting the smaller operators by retaining high margins of commission on freight and charging exorbitant interest rates wherever they act as financiers, the Committee (GOI, 1980) looked into the issue but concluded that “we have not come across any concrete evidence to show that booking agents exploit operators as they seem to be operating in a competitive market” (p.197). This was quite contrary to the opinion of an earlier Committee (GOI, 1967) which admitted the existence of high margins though these may not have been as much as suggested by the operators.

The evidence that has emerged over quite some period of time is that the middlemen/ intermediaries, which include the booking agents and the brokers, are the dominant players in the market and they in fact are the real “makers” of the market. Given this feature, the issue is: who and / or what determines the freight rates? NCAER (1979) indicated that the booking agents, besides other functions, also had a role in fixing freight rates i.e. the rate charged to the user and the rate given to operators. AITD (1999) was more emphatic in observing that these two categories acted as the real power centers (‘powerful agents’) in the industry and therefore had a major role to play in determining freight rates. One emerging view is that as a result of significant increase in the number of operators in the industry, the competitive nature of the market has been strengthened as a result of which competitive rates prevail. However, it must be recognized that since the early nineties, freight movement in general has not been in tune with the growth in capacity in the trucking sector as a result of which average capacity utilisation over the period 1990-91 to 2001-02 has been only in the range of 57 per cent to 63 per cent which along with a manifold increase in diesel prices has seriously affected profitability of operators (Deloitte, 2003). This situation has reflected an excess supply, which has depressed freight rates. For instance, over the period 1995-96- 2001-02, freight rates have increased only marginally by 10 per cent on the Mumbai- Delhi route. But equally significant if not more important was the observation “that the freight charges paid to the truck owners have no relationship with the rate settled between the consignor and the booking agent” (AITD, 1999 p.45). It is widely believed that the rate paid by the

consignor is a competitive one based on market forces of demand and supply. Even the most recent study of the World Bank (2005) brought out this feature clearly while admitting at the same time that the low cost to the user was at the expense of quality. This really brings us to the question: if the consignor is being offered a competitive rate, which is low, how much lower is the final rate offered to the operator given that the final rate has no relationship to the consignor rate? Would the rate to the consignor be lower given only reasonable margins to the booking agents?

These are some of the questions that we examined among the many others on the basis of surveys conducted mainly in Mumbai but to a smaller extent in Goa and Satara. The analyses of these surveys are presented in Part II of this Section.

Part II

Market Surveys and Analysis

Any attempt to understand a market for a product / service and its characteristics would necessarily have to begin with the relevant definitions, which can be primarily in terms of the product/ service that is offered, the geographic area which it serves, the nature of substitution possibilities within and outside and the ease of entry and /or exit into the sector in terms of policy/ regulatory elements and factors within the sector. All these features can ultimately affect the quantity and quality of services offered as also the price that is charged to the consumer and the revenue realisation of the producer. We attempt below some relevant definitions in the context of the RGTI in India.

Service Differentiation

In the context of trucking operations in India, there is a reasonable variety of services that is offered by the industry. One service relates to the parcel or smalls business. These mainly refer to small packages booked by different customers, which are consolidated into a truckload for dispatch (this is possibly most equivalent to the LTL segment in the context of countries like the United States and those of the European Union). Another relates to larger consignments, which could constitute a FTL or a

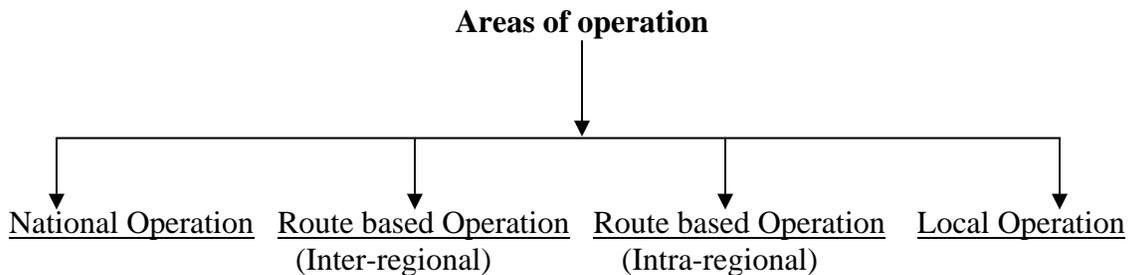
number of FTL. The emergence of containers has only sought to provide some consolidation in these two product categories. Given that the parcels are smaller units and there is need to consolidate these, their charges are invariably higher per unit of weight. A third category may take the form of specialised traffic moving in specialised vehicles such as tankers etc. According to CIRT (1994), specialised movement accounted for less than 10 per cent with parcels traffic accounting for about 20 per cent. According to market sources, currently the parcels traffic might account for about 25 per cent of the movement.

Areas of Operation

Trucking operations can also be classified into Local, Regional and National on the basis of the spread and the extent of operations. We now examine these in some detail.

There are some operators who operate at the local level only. Many more seem to be operating on specific routes on an inter-regional basis. Some others operate on a national basis. Figure 14 gives this delineation.

Figure 14 - Areas of Operation



1. National Operation

In the case of national operations, the transport companies play a significant role not only that of operators (fleet operators) but also the role of booking agents for other smaller operators. The geographical area covered by these operators is large and they have a fairly wide network of branches throughout the country. Here we observe the hub and spoke model is likely to evolve as the market matures. The large transportation companies are expected to increase their investments in setting up hubs across the

country. The hub and spoke distribution system enables optimisation of costs and higher revenues for the transport companies/ fleet operators. These transport companies generally have formal contracts with the users, which is very rare in the case of small operators.

2. Specific Route based operation (Inter- regional)

It has been observed during the surveys that most brokers and operators concentrate on certain specified routes such as between the following points:

1. Mumbai- in and around Delhi, Panipat etc.
2. Mumbai- in and around Bangalore
3. Mumbai – in and around Ahmedabad
4. Mumbai- in and around Chennai
5. Mumbai – in and around Cochin
6. Mumbai- in and around Kolkata

The main factors responsible for the focus on a particular route are:

- Market expansion requires finance.
- Requirement of permits for operating in different States and costs involved in obtaining these permits.
- The requirement of additional staff which meant higher staff costs.
- Infrastructure (or offices at different location, information to establish contact for return trip etc.) is also a constraint.

Due to these factors, there does appear to be a **segmentation of markets** on a route wide basis. Another factor that seems to have contributed to this trend is the information flow being controlled by two groups i.e. the booking agents and the brokers.

3. Intra-regional operations

In this category, the operators restrict their movement to intra-State operations.

4. Local operations

In this case, the geographical area of movement is very limited i.e. only local operations as for example, movements in and around Mumbai.

Substitution Possibilities

In almost all the categories of services offered and distances moved (exceptions being local movements), choice of railways as a mode has always been a possibility. This is especially true in the case of long-distance movements in which case the railways have inherent advantages, which get reflected in lower tariffs. However, the railway system in India has been consistently under performing in terms of its potential as reflected by the inefficiency on the system (Rao and Sriraman (1985), Sriraman (2000)). As a result, significant movement of bulk items over long distances has been a common feature especially since the late 1960s. With the trucking industry offering the advantages of customer-tailored schedules, easy availability of equipment, easier maneuverability, smaller cargo acceptance, flexibility in operation and organisation, door-to-door service, etc., there has been a continuous shift to road movement despite the higher explicit costs of movement by road (See Table 10).

Table 10: Road -Rail Rate Differential		2001-02		
		Road	Railway	Difference ¹ (per cent)
Particulars				
Distance (Mumbai-Delhi)	Km	1,407	1,389	-
Average freight rate	Rs.per tonne	1,395	805	73.2
Loadings/unloadings in truck	Nos.	2	4	-
Loadings/unloadings in railway	Nos.	0	2	-
Loading/unloading charges for truck	Rs.per tonne	90	90	-
Loading/unloading charges for railway	Rs.per tonne	0	50	-
Handeling loss per loading/unloading	Per cent	2	2	-
Effective freight cost	Rs.per tonne	1,631	1,362	19.7
Effective freight cost	Rs.per t-km	1.16	0.98	18.2

¹ Percentage differential between road and rail freight rates over rail freight rates.

Note: 1) Road freight rate is the average freight rate on the Mumbai-Delhi route.

2) Railway freight rate is for the distance slab of 1,400 Km.

Source: Deloitte (2003).

With the development of high quality roads in different parts of the country including the up gradation of important sections of the National Highway network, it is expected that the share of road movement would go up further. However, the emergence of a different railway approach in the past year or so in meeting the demands of the market in terms of different strategies involving tariffs, insistence on higher utilisation of

assets, development of exclusive freight corridors can be expected to restrict shifts to some extent. The Indian Railways have begun offering highly competitive services in regard to parcel movement by going in for lease of space for parcel movement on scheduled trains running from different cities on the network. More recently, the space being offered has been increased in terms of provision for higher loads (4tonnes), which still comes within the category of ‘smalls’ or ‘parcels’. Though dedicated freight corridors may take quite some time to emerge, their emergence (which is expected to be fast) will definitely slacken the move towards roads if not divert back movement to the railways.

Ease of Entry and Exit

The absence of barriers to entry and exit reflect a fairly competitive market. There could arise private barriers in the form of structural barriers (product differentiation, extent of sunk costs, etc.) and strategic barriers in the form of particular behavioral strategies of incumbents (in the form of threats, pre-emptive behavior, etc.) while public barriers arise in the form of licensing and other regulations imposed by the Government.

“There are no entry barriers to this industry; almost anyone who can manage to own a rickety truck gets into it” (CIRT, 1994, p.8). This observation is perhaps true to a large extent. Low entry barriers can be attributed to some of the following factors:

- Low capital requirement as compared to other self-employment options (particularly for buying not so new trucks)
- Easy availability of capital (through unorganised financiers although at a significantly higher cost for the small operator)
- No expertise required in terms of business or educational skills. A basic driving skill is the only prerequisite coupled with the fact that driving licenses and clearances are simple to obtain.
- Liberal issue of permits – at State and National levels- has enabled emergence of the perception that the market for these services is huge.

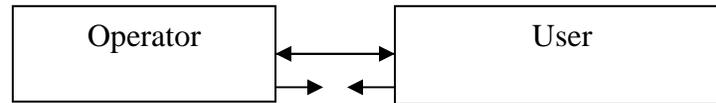
Given the low entry barriers in the Indian context (in terms of both private and public ones), the normal consideration for entry into any economic activity, at least on *a priori* basis would be the existence of good (or more than good) returns. Our surveys did reveal such a consideration on the part of operators especially the smaller ones. This was based on the observation (rather cursory) that other operators were fairly successful in terms of the financial performance. At the same time, there was only little awareness of their own limitations in terms of their ability to identify demand for their services. This fear was to some extent removed on the possibilities of attachment to the larger ones or other intermediaries. In other words, the new entrants would not normally know where the demand for their services lay except through the players they are attached to. Thus even basic information requirements are not available to new entrants. Though this is not perceived to be a barrier to entry, the problem is formidable and gets resolved only by an almost complete surrender to intermediaries by which time exit is also ruled out an option. Thus, there are information asymmetries to contend with. Given the lack of alternative employment opportunities, exit was not considered. Many of the smaller operators confessed that they held on to the business and given that their families were all located at their native villages, as single individuals, they managed to continue their operations especially in urban areas.

As for competition within the industry, we examine these issues below in some detail taking into account the areas of operations and the extent of involvement of the different players in terms of different relationships in different operations.

Interrelationships

The surveys focused on different supply linkages with a view to examine the interrelationships between various players in this market. The following patterns have emerged from this examination. This has been explained in terms of different models in the form of flowcharts below.

1st Model



The above model is applicable only in case of local (within a particular city or peripheral areas of the city) movements. Given that the geographical spread of operations is very limited and the informational requirements are minimal, **there is almost no role for intermediaries in these operations.** The contract is mostly informal except in the case of specialised requirements in terms of vehicles for a long period (case considered later). The surveys indicated that there is hardly any scope for middlemen. Generally in this market the operators and users are in a position to determine the freight rate and this seems to be the most competitive market. This is especially the case relating to movement of household items on a local basis. However, even in the case of local movements, we have come across instances wherein there are attempts to fix rates at higher than the market level as a result of formation of associations/unions. AITD (1999) observed, “The practice of truckers forming cartels particularly in important industrial locations would need to be discouraged and competition encouraged” (p.53).

In the Mumbai context, our surveys reveal the possibilities of such control on freight rates mostly in case of light commercial vehicles (mostly tempos) in and around the ports (Dock Local Unions), in and around Industrial Estates like Andheri Industrial Estate (MIDC) in Mumbai, Wagle Industrial Estate in Thane and industrial area in Bhiwandi. Some operators also mentioned existence of price fixing unions in place like Daman. On the basis of our discussion with some local operators we understand that in the context of setting up new economic activity like industrial estates there are informal provisions to make use of locally available skills and services including trucking services. In fact, some water tanker operators pointed out that even for more formal contracts involving water supply on a long-term basis, there is priority provision for operators from the local area. It has been pointed out to us on many occasions that there are such cartels of operators in different parts of the country. The CIRT study (1994) observed the

existence of strong associations of operators such as Calcutta Truck Owners Associations, Durgapur –Bilaspur Truck Owners Associations, which prevented other trucks from entering their areas of jurisdictions. It is not quite clear whether these associations also ‘fixed’ prices. In another context, it was pointed out that truck owners in some regions of Himachal Pradesh do not allow entry of outside operators for movement of apples. Once again it appears that the provisions for a priority clause in favour of the locals, to begin with, may have led to this kind of attempts to fix prices. And the practice would have been continued. But we feel that these have been attempts at price fixation on a highly localised basis. A reference to the MRTP cases (almost all) cited earlier in the Indian context emphasises this point.

The local markets where there does seem to be some attempts at price fixation is not based on the strengths of any formal combined efforts since we did not notice the existence of formal associations which are registered with any authority based on a memorandum of association. Given that the entry of tempos and light commercial vehicles (which normally take care of local movements) has been very significant in the past two decades, one would expect a competitive situation with a large number of operators competing for a set of loads at the local level. However, this is not happening. Let us digress a little and consider the market for taxi or auto rickshaw services. These operators have to take a permit and are allowed to be based at certain specified location where they could wait for passengers. These locations are all specified by the RTA. With the number of locations for parking not having increased (with increased number of permits), taxis and auto rickshaws have, over a period of time, begun to operate from a number of areas (parking spaces which run into hundreds- being based as they are at every street corner). With a few at every location, they invariably allocate areas which they would head for – though not necessarily get involved in some price bargaining. Local trucks have virtually no allotted parking spaces. As a result, they have been following the pattern of the taxis, etc. in basing themselves in small numbers wherever possible to get loads. Being small in number and with no possibility of a return load, they attempt to fix price maybe at more than typically expected market levels.

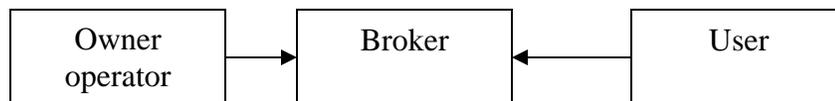
One exporter who fabricates wooden furniture in the city and exports manufactured furniture items mentioned that he found operators near his unit in Reay Road often quoted a relatively high rate of Rs 500/- for moving a tempo loaded with goods to a place in Masjid Bunder – situated about 4 kilometres away and which takes about an hour to cover on a normal day. His view was that people were being charged a price nearly twice (or even more) the one that would be based on a fair consideration of costs with a reasonable return. The *modus operandi* was to quote a certain rate when business operations began at day time which would then be the quote for the rest of the day for almost everyone who operates from the locality. This situation prevailed all over the city in terms of a number of localities. We need to emphasise that such a situation exists only for movement of industrial items/ export items over short distances – within the city or in the suburbs and was based mostly on informal arrangements between the operators who had the full support of the local politician.

Some users also referred to the dominant role of a single operator or a set of operators in the context of local movements within, say, the Jawaharlal Nehru Port, New Mumbai. Given that a lot of stuffing and de-stuffing that takes place and given the time considerations between arrival at the gate and possible loading on to vessels and thereby the need to use the buffer yard for waiting, etc., the local movement is handled by operators hand-picked by the port authorities. This is done by a tendering process (the disadvantages, problems faced are examined elsewhere). Apparently, local movements which are based on rates (as per the lowest bid) are handled so very inefficiently by the appointed operator(s) resulting in the costs of movement (which includes delays) being much more.

We noted in the Pithampura (A.P) case (MRTP Enquiry: RTP Nos. 402 of 1988, 97, 98 and 99 of 1989) that the MRTPC had argued that this was more in the nature of a criminal case about which the police needed to be informed. A similar cartel like arrangement is supposed to be in operation at the Jawaharlal Nehru Port at Nhava Sheva. Though informal, the operators are being organised as the **Pagote Prakalpagrasta Truck Tempo Malak Association Maryadit** which does not allow other operators to lift

anything of the order of 4.5 tonnes or less without paying a hefty amount. According to some of the office bearers of the Bombay Goods Transport Association, this problem arises once in a while only, of late, due to active role of the local police in attempting to curb this practice.

2nd Model

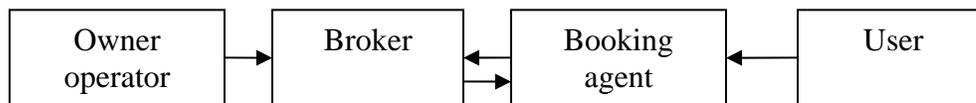


The market for this service is seen to be a perfectly competitive one with existence of a large number of users and a large number of operators. But it can be seen that in the above structure there is an intermediary who is a broker here and who gets paid a certain fixed commission for his service. This type of model is prevails mainly where the area of operation is limited i.e. **area of operations is mainly within the state**. In this case, the informational and other requirements are limited and hence provided by the broker. The final user price appears to be based on the market forces of demand and supply because there are large number of brokers (some operators in Vashi mentioned that they depend on 4-5 brokers for their intra-state operations). But as these brokers have tie-ups with brokers in other parts of the state, the broker in other parts of the states is likely to receive a higher commission by paying the driver a lower rate for the return load. A part of this commission would be passed to the broker in the original destination. Thus, the brokers are not as innocuous as they seem, in the sense they are not just benign search agents charging fixed commissions for uniting an operator and a user. In some cases even the driver who fixes the return load gets the commission for it. But given the large number of brokers, the commissions that they receive are likely to be a reasonable one, in the range Rs.300-500 for one transaction. This does not seem any different from the figure quoted by the World Bank (2005).

The Goa case study (see **Annexure III**) reveals such a relationship in the context of movements of iron ore from the mines to the port. These are purely short distance

movements but involve the services of the village panchayats as intermediaries. It is not quite clear whether they perform this role for a commission like a broker. But one feature that needs to be noted is that the panchayats draw upon the services of the operators who are based in these panchayats to provide the requirement of the mines. In this sense, the role of the panchayats can be viewed as a social one whereby employment is provided through the panchayats with or without a consideration. Entry of outside operators is not possible. Thus there is an implicit entry barrier.

3rd Model



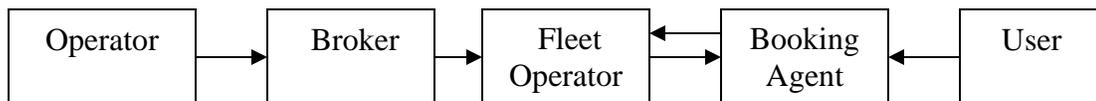
This structure is very much evident in the case of players on certain specified routes. Some of the important routes are Mumbai- Panipat, Mumbai- Jodhpur, Mumbai_ Cochin, Mumbai-Lothian, Mumbai-Agra, Mumbai-Calcutta, Mumbai-Bangalore, and Mumbai- Hubble.

In addition to the presence of a broker on whom the operator depends, there is also a booking agent with whom the user is in contact. Thus there is no direct business contact of the operator with the user. It is thus expected that the brokers and booking agents negotiate on behalf of the operators and users respectively and hence supposed to play a dominant role in determining the freight rate. **In a sense, we could say that the brokers represent the supply side of the market while the booking agents constitute really the demand side of the market.** Since it is also observed in many cases that the brokers normally receive a certain commission for their services, it does seem that the booking agent then really represents the supply side as well as the demand side. Here it must be recognized that the booking agents have a far greater role to play in terms of provision of various facilities at different locations, financial advances to operators in lieu of freight charges, responsibilities for safe movement and delivery and extensive nature of their operations. This can be considered as one of the reasons for the booking agent's margin

not being fixed and it is the difference between the freight rate charged to the user and the rate, which is paid to the operator. But there are limited situations in which the broker can play a very significant role in determination of freight rate in which case he represents the supply side. In general, it does appear that the booking agents have a dominant role to play in determining the freight rates. Normally, given the existence of a number of booking agents, the freight rates seem to be determined competitively. The assumption is that there is good information flow to the users regarding the market. However, during the peak season (October to December and March to June) when there is tremendous pressure from the demand side, the information flows appear inadequate. As a result, the intermediaries are in a position to hike the freight rates well over and above the normally expected bench market rates. A number of brokers revealed this to us.

In Satara, it was observed that a group of small operators were organised in such a way so as to not only take care of information requirements but also provide for allocation for movement on a day-to-day basis. However, it is to be noted that this did not really result in a price different from the prevailing market rate.

4th Model



This is a variant of the third model in that there is demand for a fleet of vehicles for handling movements perhaps on a continuous basis. This model is also evident in case of specific routes. The large fleet operators get the freight through the booking agents but outsource it through the brokers to the small operators. Thus, the fleet operators in a way also play the role of intermediaries here for which they either take commission or just pay lower freight to the small operators. Here again the booking agent does seem to have a significant role. The issue is: whether the intermediaries dominate the scene?

One observation (made by many Committees in the past) that is pertinent here is that the freight charges paid to the truck owners have no relationship to the rate settled between the user/consignor and the booking agent. With the broker being a more passive

player relative to the booking agent, we suspected a fairly high margin for the booking agent. GOI (1967) observed 'It has been alleged that at times the margin of profits realised by booking agencies from truck operations is as much as 50 per cent of the freight they charge from clients' (p.49). In our surveys, the operators quoted margins of booking agents to be 25 to 35 per cent on the freight realised. More specifically, a figure of Rs.4000/- on freight realisation of Rs.10000/- was quoted by a number of operators especially the smaller operators. The booking agents themselves admitted only to a margin of 10 to 15 per cent of the revenue realised. Some of them even revealed specific figures of Rs. 1000 on revenue of Rs. 10000/-. World Bank (2005) observed that the transporters/ booking agents admit that the amount they have to pay to the truck operators on any given day can vary from half of their revenue to more than 100 per cent of the revenue. In the context of the peak season, it was revealed by some booking agents that the higher realisation is not necessarily passed on to the operator. Once again it is to be noted that it is lack of information flows which gives rise to this problem for the operator. Whereas it is the information flow that gives the intermediaries some advantage in the market.

In the 4th model again the booking agent plays the same role vis-a- vis the user as in the third model depending on the nature of the demand conditions. However, given that the fleet operator is in a far better position to obtain information, it is observed that the booking agent does not really benefit in terms of the margin. The onus is now on the fleet operator since he is in an advantageous position vis-a -vis the smaller operators. Our surveys revealed that the smaller operators were victims in this regard though not on a regular basis.

In Goa, some of the small operators who are involved in long distance movements have a tie up with a fleet operator, say, Transport Corporation of India (TCI) a major player on an all India basis. TCI provides the framework under which the small operator act as a franchise in a formal way for which they charge a price in addition to the margin available to the fleet operator in the case of an attached vehicle. The survey revealed that there are few companies operating on all India bases. These companies need to have warehousing facilities, branches all over the country, network of hubs and sub-centers.

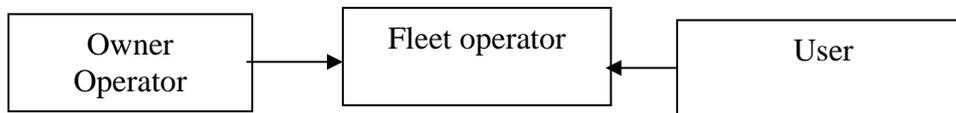
Accordingly their costs also differ. It was revealed to us that the user prefers specific route operators when there is full truckload, as they are faster and less costly. But when small parcels have to be transported, the users approach companies which operate on an all- India basis.

In the case of international trade, both these models appear to adequately represent the relationships. Our survey of some exporters revealed that it is the smaller ones who really bear the burden of somewhat higher prices and poor quality of services since they depend significantly on the intermediaries who also take care of other requirements in terms of formalities at the ports, etc. The president of the All India Importers and Exporters Association was critical of the role played by these. Though the trucking sector is still a highly disorganized one, he pointed out that transport companies who really arrange for the movements have been dominant in fixing rates in the past. Further, earlier there were also issues related to entry of outside operators to pick up cargo at the ports. However, giving the presence of a large number of such companies, this tendency is confined to pockets and mostly for local movements as pointed out earlier. One other issue in the context of trade movement that we examined related to the quality of services by the industry. World Bank (2005) observed that while the industry delivered services at very low freight rates, service quality was poor with low reliability and transit times double that of developed countries. Such poor levels in terms of quality is adequate for low value bulk items (which should normally be moving by rail) but would hardly be considered appropriate for international trade movements. When questioned, exporters hold that for a long time even routine handling, processing for movement by trucks were not satisfactory as a result of which exporters would take extra care by way of packing which meant additional costs. However, in recent years, the trucking industry has responded to these requirements in a positive way. But there are other issues that need to be addressed. One set of issues relate to the inland transport component and the other to the port component of the transport chain of, say, exports. The barriers to movement across the States in terms of the poor road conditions, the delays on account of different regulatory and taxation authorities and the resulting facilitation payments contribute to increasing the inland transport cost component. Lata (2005), in the context of an attempt

to examine the effects of infrastructural impediments on the competitiveness of India's exports, has pointed out that when we compare the inland transport cost with ocean freight, it is observed that magnitude of inland transport cost is disproportionately large. In addition, poor processing, handling at the ports also impose additional burdens on the exporter. Porter (2004) points out that the size of India's transport cost disadvantage for, say, textiles shipped to the United States was around 35 per cent, 20 per cent and 10 per cent when compared with China, Thailand and Indonesia respectively.

The 3rd and the 4th models seem to represent a significant part of the movement in terms of the tonnage handled, distance moved – in short, the output produced. Even though there is segmentation of markets in terms of region wise movements, given the large number of players in terms of various categories constituting the markets, structure of the market thus seem to be market driven and appears to be serving it reasonably well.

5th Model



In the above model there are three players but no middlemen. The fleet operators generally bid for contracts and have formal contracts. This is the case where there is 'competition for the market' which though not a substitute for 'competition in the market' is a good surrogate. The basis for this is auction theory, which traditionally promised to deliver many of the gains that competition in the market would have delivered. The implicit assumption was that the number of potential providers in the sector would be large enough to allow competition for the market to be effective. This has not happened in many of the infrastructure related sectors.

This model is observed in case of the market for highly specialized vehicles where large fleet operators have access to the market for bidding but small operators do not e

enter because of various entry barriers.²It is observed that the large fleet operators actually bid for the contract with users. They utilize the services of the small operators. That is, in case additional vehicles are required then they outsource them from the small truck operators. So the fleet operator here is playing a multiple role- that of a booking agent, a broker as well as an operator.

The bidding process in the case of formal contracts (which are normally for two years but extendable by one year) involved certain important issues. In a formal contract, we were given to understand that the users prefer multiple transporters instead of relying on a single transporter. The user's demand varies as per the season with the demand for a higher number of vehicles during the peak season with additional numbers quoted for the purpose of backups. For example, if the peak demand for vehicles is 180, user would put up a requirement for 200 vehicles. In addition, requirements are also influenced by factors like provision for annual growth, vehicle breakdown, and emergency requirements. To provide a benchmark tariff, which serves as a basis for comparison with rates quoted in the bidding process, users undertake their own calculation of freight rates, which is based on historical costs, change in the input prices and estimation of logistic costs.

From the operator's point of view, there are certain eligibility conditions stating that the transporter should have a certain number of vehicles of his own and three times that number could be in terms of attached vehicles. If it is the distributor of the user, he can have fewer owned vehicles in addition to the attached vehicles. This has important implications for the small and new operator, as the transporter cannot be a new player; he has to be an established player. Another condition is that the fleet would be a captive one and cannot be used for sub-letting. Sub-contracting is also not permitted. In other words, the contract is agreed to on a principal-to-principal basis. The transporters have to pay an Earnest Money Deposit, which is repaid back to all the bidders once the tender is open. The successful bidders are then expected to pay security deposits of specified amounts. The number of transport players, which bid for the tender generally is very large, and is a mix of small as well as big players. The transporters' interest in bidding is based on

² Operators having certain number of trucks/tankers can only bid for the contract.

factors like the number of vehicles required, the number of trips the vehicle can make, the mileage, loading and unloading base, the use pattern of the user. The tender is a pegged tender and is a combined tender in which one company acts as a front company and negotiates on behalf of the others. The issue is: whether this form of tendering means collusion among the participants? We have been informed that this grouping is meant essentially to pitch themselves against other groups to get the business rather than any attempt to fix rates. Even within a group, one operator acts as a leader while the others take turn in consequent biddings. This seems to be the typical case of many players tending to hedge by being involved as members of the consortium rather than as individual operators.

We have examined two major public sector users namely, **Bharat Petroleum Corporation** and **Container Corporation of India** in this category of models. Though conditions for bidding are different in some ways, they follow the general guidelines adopted by Public Sector Enterprises. In both cases it was revealed that the Users are able to get the most competitive rates given a fairly large availability of specialised trucking services. In a recent bid for movement of liquid petroleum gas cylinders, we understand that Bharat Petroleum was able to pitch the rate per cylinder at Rs.7/- as against the quoted rate Rs.7.63 based on a costing sheet given by the transporters themselves. A private sector company namely **United Phosphorus Ltd.** - manufacturer of wide range of chemicals – which exports chemicals and huge quantities also reported getting very highly competitive rates for their movements from the northern and western parts of the country to the Mumbai ports. Given that these users require bulk movements over a period of time, the movements are substantial. They are able to pin down the operators. Spokespersons for the All India Bulk Liquid Importers and Exporters Associations and the All India Exporters and Importers Association also spoke of obtaining the most competitive prices for trucking services from and to the Mumbai ports. However, it is understood that there are issues relating to movement within the ports especially Nava Sheva which is normally given to one operator on a bid basis for a certain period of time. The larger tanker operators who really bid for the tenders appear fairly satisfied with the

final rates fixed though the smaller operators complained of high margins for the larger operators and accordingly a lower return for them.

The case study of Satara (**Annexure II**) revealed that in the case of long term contracts – relating to grain movement (Public Distribution System) – there is virtually only one fleet operator who handles these contracts on a continuing basis. Though there are procedures to be followed in terms of bidding etc., it appears that collusion between the consignor (a State Government Department) and the operator preempts outsider entry. A recent report (**TOI, 2006**) referred to allegations made by some of the Ministers and officials of the Government of Maharashtra that the State Government had lost Rs.250 crores in the last few years in transporting food grains for the public distribution system. Transport contractors who have not changed after 1996 were undertaking this movement. According to the report, a group of contractors had managed to influence decisions of the State Food and Civil Supplies Department in their favour and that rates quoted by them were 350 to 400 per cent higher than prevalent rates. According to the report, there is a petition before the Bombay High Court challenging the process of tendering. This is possibly a case of bid rigging. It would be useful to point out some of the observations in **ADB (2005)** in the matter relating to bid rigging for the market especially those involving government agencies. It is pointed out that in many developing countries, the size of government purchases is now so large that only small reductions in the amount of bid rigging on state contracts would more than cover the costs of cartel enforcement. This is particularly noteworthy since as much as a quarter of documented law-enforcement actions in developing countries have involved bid rigging against state purchasers.

In this context, it may be useful to refer to some of the court cases that have been reported by the Bombay Good Transport Association (BGTA). In a number of these cases (in different parts of the country), the courts (Case No.216 of 2001 – Orissa High Court, Case No.1122 of 2001 of the Kerala High Court, Case No.85 of 2000 of the Guwahati High Court) have held that public sector units/ government departments need not necessarily have to take the lowest price bid provided the unit/ department is able to

provide valid reasons for approving a higher price bid (see www.bgta.org). We have not been able to look into the matter in greater detail.

Part III

The Competition Act, 2002 and the Findings of the Study

Competition law provides a regulatory framework to maintain and improve efficiency in markets, promote competitive practices, and restrain price rises in markets where competition is affected by business practices (collusive price-fixing, input output allocation, bid rigging); abuse of dominant position (exclusion, discrimination and predation); and mergers and acquisitions. Competition laws in many developing countries also cover a broad range of anticompetitive actions and policies, including discretionary grants of monopoly power and unduly restrictive government regulations.

In the Indian context, the provisions of the Competition Act of 2002 are broadly in terms of the following:

- Prohibition of anti competitive agreements – this includes contracts, arrangements and understandings between competitors (horizontal) – such as market sharing, price fixing, collusive price fixing, input-output allocations and bid rigging, etc. Also of concern are exclusive supply arrangements (vertical restraints such as tie-in arrangements, resale price maintenance, etc). Two factors are often assessed to determine whether competition is unduly lessened or prevented: the structure of the market and the behavior of the parties to the arrangement to determine the agreement’s likely effect.
- Prohibition of abuse of dominant position- where firms already have significant market power, the authority would not seek to make such power illegal. Structural dominance alone is not the focus of this provision. However, the provision would necessarily seek to prevent abuse of such dominant power.
- Regulation of combinations- these provide the tools to discipline anticompetitive behaviour before it takes place. Since, for example, a merger is forever, these provisions allow for careful scrutiny for potential negative effects on the economy. Specific criteria that is to be considered when to allow a merger or not are availability of substitute products, barriers to entry, effective remaining

competition, removal of an effective competitor, etc. These factors are examined to decide if there will be a substantial lessening of competition post merger

We now attempt to understand the issues relating to the study within the framework of provisions of the Competition Act, 2002. Considering the traditional hypothesis that certain players dominate the sector and abuse their power (abuse of dominant position), we have noted that this was indeed the case in the past as pointed out by the various studies wherein it was pointed out that the intermediaries (apparently few in number) dominated in fixing tariffs and were beneficiaries of huge margins – at the expense of the operators and the users. This does not seem to be the case now given the large number of such intermediaries. The long distance movements (as represented by the 3rd and the 4th models) seem to represent a significant part of the movement in terms of the tonnage handled, distance moved – in short, the output produced. Even though there is segmentation of markets in terms of region wise movements, given the large number of players in terms of various categories constituting the markets, the structure of the market thus seem to be market driven and appears to be serving it reasonably well.

The sector is a very highly fragmented one with the biggest operators owning just about a few hundred vehicles. Market sources do not expect consolidation especially in the face of asset-based operators (big ones) turning to non-asset based operations in a significant way. These are mostly related to parcel traffic and small loads which need to be consolidated at different points (hub and spoke operations). As a result, the emphasis is on investments on warehousing with movements being outsourced. In the United States, this has been the typical less-than- truck load (LTL) operations in which segment there has been consolidation in terms of mergers but this model has been based on extensive vehicle fleets as well as other facilities which require huge investments thereby posing issues of entry into the industry. We have noted one such case involving a merger between two organisations in the United States which was approved by the United States Department of Justice based on the expectation that there would not result less competition in this segment of movement.

In a consideration of anticompetitive agreements, the examination of the different markets revealed that i) (in the 1st Model representing local movements) there is a

tendency in local markets for price fixing practices based on informal arrangements and on the basis of local political support, ii) in the model representing specialised movement, movement on a long term basis (5th Model) where tendering aimed at substituting ‘competition in the market’ by ‘competition for the market’ prevailed, there was a (in some cases) tendency towards informal combinations which are aimed at clinching the deal without really influencing rates (which was not easy in the face of large users of services). **The question then arises: is there a possibility of use of countervailing power (as an anti-competitive practice) in the case of large users?** We examined this aspect in the course of our surveys.

Consider, for example, the tanker market. We spoke to some of these operators (especially in the oil tanker segment) and also had discussions with their local association. Though representing a specialised segment, there has been a steady increase in supply in terms of the numbers entering the market. Given the important role of bigger operators in bidding for contracts, there is a possibility of the smaller ones (who once again dominate in terms of providing the single tanker in large numbers individually) not being given the appropriate rate. As is the case with general trucks, the profit margins are low with the small operator bearing the brunt of the burden. The profit margins are low because the users may be attempting to get better rates (than what are quoted at the time of bidding). However, we examined this dimension of the issue with the help of some data provided to us by Bharat Petroleum. Based on the lowest quote, the rate was put forward as Rs.7.63 for movement of a cylinder of a 14.2 kg. LPG (Liquefied Petroleum Gas) cylinder. The final rate that was agreed upon was Rs.7.00 which, given the operators cost profile, just about provided a break-even situation. The operators seemed to be satisfied with this situation. The role of the tankers’ association is to prevent exploitation of smaller operators by bigger operators as well as minimize harassment by police, RTO, etc. In the case of United Phosphorus, a major user of the trucking sector for movements between States as well as to the ports for export, we were given to understand that all such movements were based on contracts though not always on a bid basis. However, what was most important for the user was the quality of service provided in terms of the various dimensions such as reliability, safety, etc. Taking into considerations these aspects, the practice has been to rely on a certain set of operators over a period of

time which ensures a certain loyalty to the user which meant that the user did not necessarily impose their significant purchasing power to push up rates to clinch the deal. Even from the perspective of certain operators, this did appear to be reasonable to conclude. For example, Om Shree Ganesh Container Movers revealed to us an annual contract for transport of containers that they had with a major forging company in Pune for their movement requirements between Pune and the Mumbai ports. The contract, according to the operator, was being continually renewed (resulting from the quality of services provided as revealed in the contract) on rates that the operator found to be very reasonable. But it must be admitted that a more detailed empirical analysis involving many more large buyers would be required to be made to emphatically state that countervailing power (on the part of the users especially large ones) is either of significance or not in the context of the trucking sector.

However, very limited evidence points out to bid rigging practices by operators especially in the local movement of food grains for the public distribution system. Though these may be highly decentralised in terms of areas, it appears that the same operator or the same set of operators have continued to receive contracts for movements over a considerable period of time. This may be due to wrong tender design or collusion with authorities. We have not been able to examine the tender documents of these regional level authorities but have found those prepared in connection with oil movements (Bharat Petroleum) and container movement (Container Corporation of India) to be of the standard design with all the requisite details and specifications (at least to our knowledge). These are standard documents used by the public sector (with variations to suit the matter at hand) and have been time tested. There does not seem to be any reason to doubt the design of the process and the related documents. It does appear that the problem lies with faulty implementation and this seems to indicate active collusion with the authorities.

To conclude, from the above different supply chain models one could say that the market appears to be segmented on various basis, say as per area of operation, as per routes, i.e. operators as well as booking and commission agents seem to have

certain preferred routes. The preference for the area of operation is in general based on familiarity with the route, contacts on that route, infrastructure required, which in turn reduces associated risks. Historically, this kind of market segmentation seems to have led to more powers in the hands of intermediaries as the information flow was normally accessible to the intermediaries only. Therefore, in the past, these intermediaries have enjoyed higher margins and have been in such a position so as to exploit the market situation in their favour. However, over a period of time, the entry of a large number of players, both operators and intermediaries, is ensuring that the structure is driven by market forces. Given the dominance of small operators and the user requirements in terms of reliable haulage, loss protection, the role of the intermediaries is substantial and proving to be useful to both from demand and supply perspectives. Though, there could be situations wherein these intermediaries seem to be colluding with each other in fixing freight rate as well as the conditions and terms of freight movement, the existence of a large number of these intermediaries especially in the significant sections of the overall movement reveals an overwhelming tendency towards a market determined revenue sharing arrangement. The Mumbai market reflects this scenario to a very large extent. However, concerns have been raised regarding cartelisation practices in local movements and bid rigging practices in the context of attempts to compete for the market by way of tenders and open bid procedures. These concerns need to be looked into and such practices removed/ curbed.

SECTION 5

Effects of Policy and Regulatory Regimes on Competitiveness of the Industry

Several studies have, in the past, pointed out the implications of policy and regulatory regimes on the efficiency and viability of operations of the trucking sector and thereby its competitiveness in the Indian context. We examine some of these aspects now. We begin with issues related to policies and then take up the regulatory aspects.

Some Policy Effects

Taxation Regime

Taxes of various kinds and in varying rates are often imposed without consideration to their distorting aspects. States have often attempted to reduce taxes in a competitive spirit to attract trade and industry to the State concerned¹. Such competition in sales tax leads to legitimate concerns and there has also been an attempt to unify and harmonize sales tax rates so as to move towards a value added tax (VAT). However, there is also the issue that in an attempt to absorb the resultant revenue loss from lowering of sales tax rates, States have sought to identify new sources for levying taxes. There has, thus, been a growing tendency to transfer tax liability to the transportation sector for quite some time.

The tax regime is both transport-specific and commodity-specific. Vehicles are detained for checking payment of commodity-specific taxes such as sales tax, octroi and other local taxes. These checks are generally done by the respective agencies at separate points, resulting in more than one detention for this purpose. At the same time, there are specific taxes levied on the transportation sector, for instance, road tax, national and state permits, etc. Taxation of motor vehicles is a widely used instrument for raising resources. Usually, the transport carrier is detained at five different locations for collection of tax or checking the papers at the State and District level.

According to Debroy and Kaushik (2001) what differentiates the existing system in India with that of taxation systems practiced outside India is the delay and harassment in the tax recovery system. Domestic trade taxes in India are in need of reform. The tax

regime that is in place today is archaic, irrational and complex. It interferes with the free play of market forces and competition, causes economic distortions and entails high costs of compliance and administration. Under the Constitution, the basis of excise duties and sales tax, the two principal components of the domestic trade taxes, are distinctly defined – excise duty as a tax on production of goods and sales tax on consumption (sale or purchase). In practice, the two have come to overlap because of problems in administering taxes at the retail level.

Vehicle and operation related

In the context of assessing tax burden on a unit of operation, say, a truck operating at a certain utilisation level and moving over a certain distance, GOI (1950) observed “these taxes alone amounted in the case of lorries to 100 per cent more than the average earning per ton-mile for carrying traffic by rail” (p.25). The general conclusion was that the prevalent taxation policies of the Central and State governments do not conform to their overall policy of developing road transport as a national enterprise. GOI (1967) was more specific when it pointed out “that the burden of taxation on the road transport industry has been increasing. The margin left with the transport operators after the payment of taxes is not sufficient to enable them to plough earnings in an adequate measure for replacement let alone expansion” (p.63). The general conclusion was that the tax element in the cost of operation had become a definite disincentive to the healthy development of transport. NCAER (1979), on the basis of a detailed exercise, found that the situation had not improved and pointed out the need to rationalize the tax structure so as to ensure that taxation would be growth oriented rather than a hindrance, as it had been in the past. According to World Bank (1989), the position in regard to the incidence on vehicles was most unsatisfactory in India. Since vehicle taxation in India was road damage related but levied on the basis of gross vehicle weight rather than on potential axle loads resulting in under taxation of 2 axle trucks compared to those with more axles. Since the former is a major source of revenue to the States (accounting for one-fifth of the revenue from road users), it has been felt that there is need for rationalization/restructuring to ensure that the tax burden is distributed fairly among different types of

vehicles according to PCU (passenger car unit) dimensions as well as the road damage caused by each type of vehicle according to the equivalent standard axle.

As for the taxation element in the operating cost, GOI (1967) had come up with a figure of 35.2 per cent. NCAER's (1979) figure was at higher at 42 per cent. The corresponding figures for the US and the UK were 5 per cent and 17 per cent respectively for the early seventies. More recent estimates (Sriraman, et.al., 1998) of the tax burden in the price of the vehicle were 31 per cent and in the operating cost 57 per cent. A high tax burden would naturally affect competitiveness of services especially viewed from the perspective of growing liberalization and globalization of markets. While it was reasonable to expect this burden to come down to levels obtaining in advanced countries, rationalization should necessarily lead to a lowering of the tax burden to about 15 to 20 percent (of the operating cost) – which are close to figures emerging out of optimal tax exercises conducted in the context of developing countries (Newbery and Stern, 1987, Ray, 1993). A detailed enquiry is called for in this regard.

Commodity-related Taxes

An important feature of the prevailing tax system is the existence of a large number of barriers for passenger and goods. Documents received by check-posts help the transport department to monitor flow of goods into the State and also make an assessment of tax. These check-posts, however, interfere with the free flow of traffic within a State and cause harassment to a large body of dealers, the majority of whom are not liable to pay tax. Studies undertaken on the efficiency of check-posts in different States reveal that the existence of check-posts does not contribute significantly to checking tax evasion. On the contrary, the more the number of check-posts, the higher is the wastage resulting from stoppage of traffic.

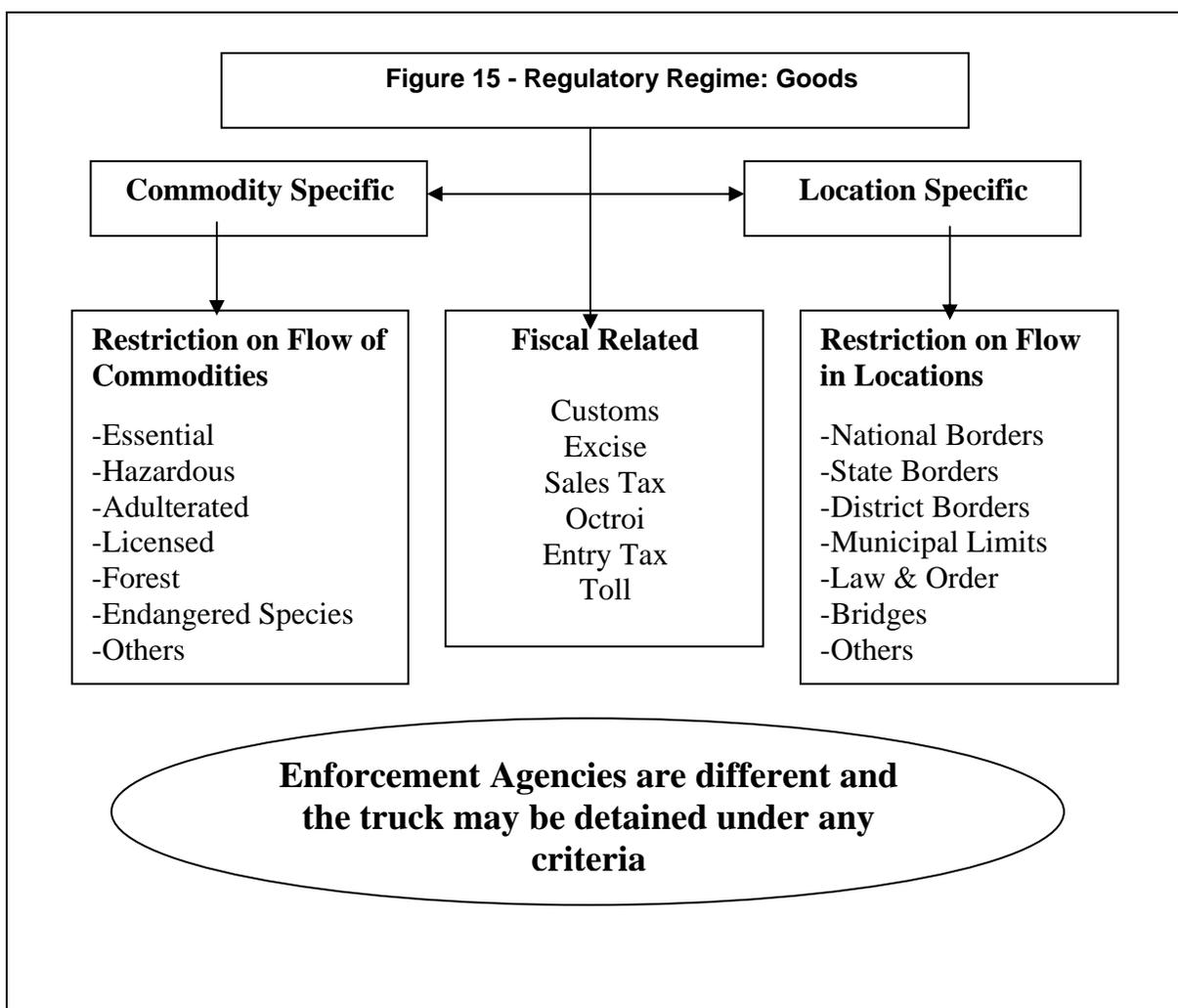
Regulatory Effects

The MV Act of 1988 (1939 as amended over a period of time) prescribes conditions for regulation of all types of road transport, viz, passenger transport in public and private sectors, tourist transport, contract carriages and goods transport. The regulatory aspects (in terms of different dimensions) relate to quality of vehicles, safety, labour,

environment, loading, policing, etc. The Motor Vehicles Departments of the various States are concerned with the enforcement of the provisions of the Act. Almost every high –powered Committee that has gone into an examination of the issues of road transport in the Indian context has observed that the focus of these departments has been on collection of tax revenue from motor vehicles and not on effective enforcement of the various provisions of the Act. As a result, other important functions related to aspects such as mobility, safety, fuel conservation, environmental protection, etc. have hardly been attended to. In fact, AITD (1999) observed, “the regulatory mechanism has fallen far short of expectations” (p.24). However, even this limited focus has, it appears, given rise to a number of problems especially smooth flows of movements thereby affecting efficiency of operations.

One important index for measuring the efficiency of a transport system is its adequacy. Adequacy is not merely influenced by the size of the fleet in operation but much more importantly by whether a given fleet moves freely without restraints so that its effective capacity is utilized and hence productivity enhanced during a given period of time. The smooth flow of road goods traffic is hampered by frequent detentions of vehicles for one reason or the other at various check points and mid way. Vehicles are detained for checking essential documents such as registration book, driving license, permits, etc. (RTO checking). They are also detained for checking payment of commercial taxes such as sales tax, octroi, other local levies, etc. In addition, detentions take place for booking traffic rule violations (Police checking) and also at State borders (Border Post checking).

According to Debroy and Kaushik (2001) besides having to conduct their operations within the framework of the Motor Vehicle Act, the operators have to fit their operations within the regulatory regime for goods too which can be schematically be represented in the following figure {adapted from Debroy and Kaushik (2001)}



The consequences of detention of vehicles are loss of time leading to underutilisation of truck capacity, avoidable consumption of fuel (due to deceleration and acceleration, stopping and restart of engines) and lastly, corruption and graft. GOI (1950), while pointing out to the delays due to octroi levies observed, “the delays that occur while goods are being examined and weighed at octroi posts are as harmful or even more harmful to the economy of the country than the levy made on the goods themselves especially when these levies are relatively light” (p.23). GOI (1967) pointed out, “Octroi and similar check posts which detain vehicles frequently are impediments to the growth of the economy and the time they consume is a serious obstacle in the way of quick turn round” (p.83). The Committee also observed that octroi was a fertile source of corrupt practices and concluded that octroi is one of the greatest hindrances in the way of

commerce and economic development of the country. NCAER (1979) noted that considering the total time wasted at the various detention points which were of the order of 20 to 35 per cent of the running time, carrying capacity equivalent to nearly 80000 trucks or capital investment equal to Rs.650 crores is locked up due to check posts. Further, there was a huge wastage of fuel as a result of idling. In terms of gratification and other social costs, the study revealed that the incidence of gratification on different routes was almost as much as the total fees levied on those routes. CIRT (1994) surveys revealed that detentions on the different routes ranged between an average of 2 hours and “more than 24 hours”. In the course of our surveys, most operators emphatically pointed out that problems arising out of exploitation by an intermediary in the trade were of no consequence to them when viewed in relation to those they faced on the road on a day-to-day basis. “The broker is a much lesser evil than the police or the RTO official,” it was observed every time we raised the issue of exploitation by the intermediary. The implications are many. One of them, as pointed out earlier, relates to low utilisation that results from less movement in a day. Our exercises relating to freight rates and operators reveal that at a higher lever of operations in terms of more movements per day, say, 350 to 400 kilometers, operators’ returns turn out to be positive even with legal loads. With less to be paid by way of wayside expenses, the returns could be higher. Debroy and Kaushik (2001) conclude that on the basis of personal interviews with transporters, if all the additional costs were eliminated, the delays could be reduced by approximately 3 days and transportation costs halved. World Bank (2005) pointed out the low cost of movement by trucks while at the same time it was inefficient. If inefficiencies could be reduced, the cost to the user could go down further which means rates would be more competitive. Given that there could be very little provision for overloading in future, the demand for truck services can go up significantly thereby pushing up freight rates and restore some respectability to the viability of operators especially the smaller ones.

SECTION 6

Competition Advocacy Measures and Initiatives

A key function of competition authorities in many countries has been advocacy of the application of competition principles in the design of governmental policies and measures including the elimination of unnecessary regulation and the adoption of least anti-competitive means of achieving various policy and regulatory objectives (UNCTAD, 1998). One outstanding example of competition advocacy has been the clarion call given by the former Chairman of the United States Federal Trade Commission in the early seventies, Lewis Engman, for deregulation of the transport sector, which has often been cited as being among the first contemporary evidence of useful competition advocacy. Accordingly, competition laws in several countries have sought to intervene in legislation or administrative processes, while others may intervene only if the competition authority is requested to do so. In Canada and the United States, competition authorities participate in proceedings before regulatory authorities relating to competition policy and also undertake general advocacy efforts. In the United States, the Department of Justice participates in executive branch deliberations and has played an important role in deregulation. In the Republic of Korea, competition law requires other governmental authorities to consult with the competition authority when they wish to introduce, amend or enact any legislation that might restrain competition. In short, active competition advocacy efforts are a necessary part of any competition authority's work profile though it is not quite sure as to how such efforts (thereby recommendations) have actually been implemented. Competition advocacy is an essential part of the work of the Competition Commission of India. Having examined issues relating to competition in the RGTI in India, we now attempt to provide some guidelines, which can be part of advocacy measures to be put forward to the Government in regard to RGTI in India. We provide these in two parts – some structural- relating to measures to promote efficiency within the industry and the others – policy and regulatory oriented- relating to measures aimed at removing barriers to movement with a view to increasing the industry's efficiencies and thereby its competitiveness.

I. Structural and Behaviourial

1. We have pointed out the tendency for price fixation especially in the context of local movements. This mainly relates to short distance movements of industrial/ commercial items with the Mumbai region. Given that these attempts at price fixation occur at distinct places namely small industrial estates or areas of small commercial activities, it would be useful for the users – their associations- to get this sorted out with the local operators with the help of the larger association of operators, say, for example, the Maharashtra Rajya Truck and Tempo Vahatuk Sangh which represents both small truck and tempo operators in the State and is based in Mumbai. **The Regional Transport Authority (RTA) can be requested to provide parking spaces where these operators could be located and also notify (based on discussions with the operators and users) a price band within which the operators could compete until such time that the market has effective competition. Thus, the State Governments through the RTA could eliminate price fixation practices in local movements.** It may be useful to note that most of the MRTP cases given in Section 2 (Part III) referred to restrictive trade practices and price fixation therein in the context of local movements.

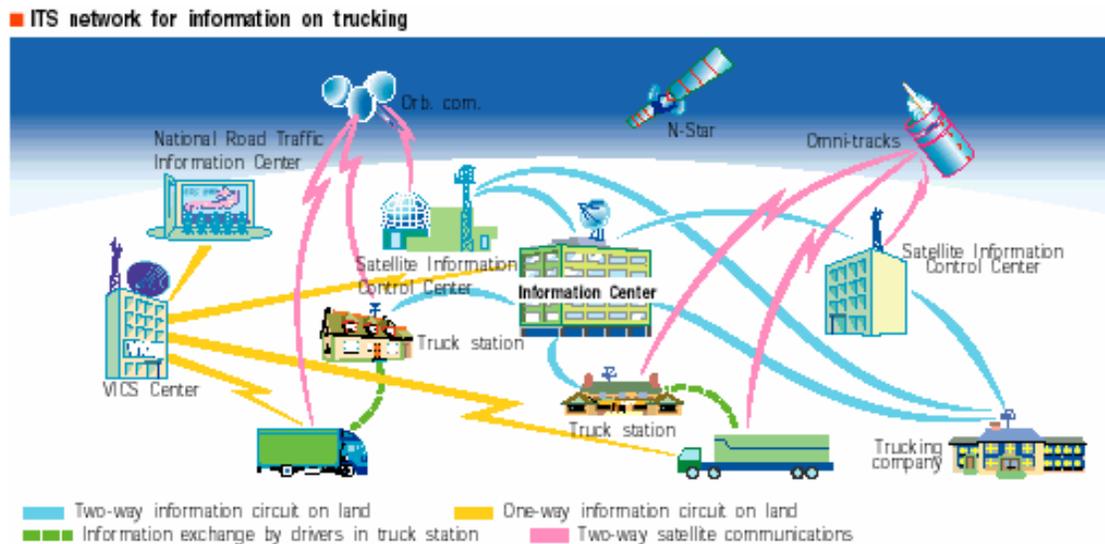
2. In the case of competitive tendering, there are often difficulties or limitations associated with competitive tendering processes for long-term provision of natural monopoly services such as difficulties of specifying all the contingencies in the contract. There are advantages too. Competitive tendering substantially reduces the information disadvantages of the regulator by revealing, through the bidding process, key information about the true costs of providing the tendered services. Given the shorter-term contracts, in the context of RGTI, the difficulties are not significant. But given the tendency that many players tend to hedge by being involved as members of a consortium rather than as an individual producer, there is always a danger of collusion in the bidding process as pointed out earlier. This has been observed in the case of petroleum product movement wherein the collusion aspect takes the form of groups aimed at winning the contract while not really aiming at any price fixation. However, in the context of other public sector contracts, especially in food grain movements (for the public distribution system), very limited evidence points out to collusion between the operators and officials aimed at high

rates for movement – relative to market rates for similar movements. **It is, therefore, necessary that the Central and State Governments and other public sector bodies enhance the efficiency and competitiveness of competitive tendering through more careful attention to the tendering process.** In particular, attention should be paid the specifications of the services to be provided and the selection of firms eligible to bid. An element of this would mean that the geographical region over which the services are required should be neither too large nor too small. (In fact, this is done precisely in the case of petroleum product movements in India wherein region-wise requirements are required to be catered too. Further, a regular feature on the part of the user has to been to split movements between groups so as to ensure that possible disruptions associated with loss of service from a single firm (group) are reduced). **Given that there is provision for action against bid rigging or collusive rigging in the Competition Act, 2002, the Commission’s advocacy role would be to impress upon Governments for an active oversight of the competitive tendering process to ensure sustainability of competition failing which active competition enforcement would be resorted to by the agency.**

3. Informational asymmetries have been quite significant in the context of the working of the market for trucking services. As a result, the implications have been many. Even in the U.S. the problems were formidable within the regulated framework before 1980. Those opposed to deregulation argued that entry by small trucking firms would fail because without set prices and the information systems that large carriers maintained, small entrepreneurs would be faced with “chaos” and be unable to function. However, after 1980 the chaos got eliminated as a result of entry of a large number of operators and other intermediaries that effectively disseminated the required information as a result of the WEB- from which almost any one could access information to function effectively. Effectively, this means sharing of data useful for shippers and suppliers. From the supply side, the need for data sharing arises due to low margins (Crujssen, 2003). Internationally, especially in Europe, the **Intelligent Transport Systems (ITS)** is taken as a system that monitors the whole range of transportation including the road, rail, shipping, aviation and others. Among these functions, one that monitors cargo

transportation is very important. Japan's trucking industry, realizing as early as 10 years ago the arrival of today's transportation affairs, has been studying the ITS on its own, and worked out the system projection as illustrated here in Figure 16.

Figure 16 - ITS Network for Information on Trucking



Source: Home page of the Japanese Trucking Association

As part of measures to assist small and medium truckers in promoting joint truck allocation, the Network KIT which collects and exchanges information on the trucks awaiting cargoes and the cargoes awaiting trucks, is put into operation for greater transport efficiency. The efforts are being made for substantial improvement of this computer system, so as to increase the users of the system, and the cooperative unions that actually operate the system. As a result, there were 135 cooperative unions, 460,000 trucks and 508 terminals as of March 1998. The KIT, a system developed by Japan Trucking Association, provides trucking companies and shippers with information on cargoes awaiting trucks, and trucks seeking cargoes.

We understand that such systems have developed in some parts of the country though in a very limited way (see **Annexure IV**). It is obvious that the private sector is taking a lead in attempting to provide a basis for information exchanges in an attempt to eliminate the middlemen so that the operators especially the smaller ones get a better deal in terms of returns/ margins. Given the structure of the industry, it will be a long time

before intermediaries are eliminated. In fact, this may not be exactly desirable. What can be expected to happen is the emergence of a single intermediary like the broker operators in the U.S. who would in addition to their current 'responsibilities' also take care of cargo insurance and third party liability insurance covering their truck operators. **An effective public sector role (Central and State) can be in facilitating applications and adaptability of information technology and Intelligent Transport Systems (ITS).** This is required especially in coordinating the working of the system of exchanges that can be expected to emerge at the regional levels. The Commission can advocate such a role.

4. Several times in the past, the role of transport operator cooperatives as a means of enabling viability of operations for the small operator has been emphasized. CIRT (1994) felt that these could be an interim measure only and that if mobility gaps have to be bridged in keeping with the growth of the economy, it was necessary for the corporate sector to come into the sector in a big way with large fleet so that standards of operations and quality of employment could be raised for the benefit of the entire economy. However, we are not inclined to view this as a solution. Even in advanced countries, we came across a huge number of firms operating with a few vehicles but still turning out to be profitable though it must be admitted that the larger firms were more profitable (Savage, 1995). A cooperative solution would provide for far more flexibility in terms of a scope for a decentralized framework of operations than a corporate solution. Besides, attempting to provide a viable basis of operations, one could handle the issue of information asymmetries also. We understand that a cooperative solution has not really emerged in countries like the U.S. where attempts have been made towards this end. However, there are groups such as the Truckload Carriers Association, American Independent Trucking Association, Inc. that have been formed for the same purpose and have been fairly successful in attempts to derive economies of scale in marketing, operating and sharing of information. In fact, on the shipper's side too, a group called the American Shippers' Association has functioned for nearly a decade fairly successfully taking care of shipper's requirement in terms of the rates and quality of the services. Though a cooperative effort could eventually evolve into a position of power as in the

case of cooperatives in sugar, etc. care can be taken to avoid these problems when they are tackled at the right moment. The cooperative solution would also ensure that information asymmetries are not present while at the same time result in elimination of some elements of intermediaries in the supply chain process. Equally important is the possibility of members of an operators' cooperatives society getting registration with the Indian Bank Associations (IBA), which enables operators to borrow against documentary bills accompanied by the lorry receipts and to discount or purchase bills drawn by their customers and accompanied by lorry receipts. Currently, as per the website of the IBA (www.iba.temp.directi.com), only 652 transport operators are registered with the IBA under their approved list. Today, one of the biggest problems that truckers face relates to availability of working capital/ on route expenses for which they invariably depend on middlemen who charge them heavily by way of discounts for the money advanced.

State legislation providing for cooperative efforts already exists. What is required are some efforts on the part of the respective State Governments to encourage operators based in the State to get down to formation of such cooperative units of operators. The Commission can actively promote this idea with the State Governments as an advocacy measure. A hypothesis that emerges: it would result not only in a vibrant set of operators with lower costs and viable operations but also a better deal for users by way of a more competitive price.

5. The movement of containers that moves by rail has been for a long time been handled only by a subsidiary of the Indian Railways, namely, the Container Corporation of India (CONCOR). The exclusion of other Multimodal operators from access to railways has always been pointed out as being discriminatory. Only recently, a policy decision taken to allow private sector to run container trains was approved by the Central Government. To begin with, the private sector (multimodal operators) is to be allowed to use the railways (in addition to CONCOR) for movement of containers from the ports to inland depots. Later, the private sector parties can be expected to have their own rakes with the movements being taken care of by the railways. However, we understand that a number of issues relating to price for the use of railway services, mainly levels and their temporal variations, have arisen as a result of which there appears to be reluctance on the part of

the private sector to make use of rail services. **The Commission, in its advocacy initiative, must lay particular emphasis on the emergence of a mechanism for a competitive price regime in this market and also point out the need for a fair allocation of services in terms of access between the players (the multimodal operators) in the market.**

6. With increasing use of containers in the eighties, one issue faced by the trucking industry then was that it was effectively precluded from carrying container cargo especially, import cargo, over the road. This was because the Indian Customs service had interpreted its rules and regulations in a manner that precluded trucks from competing with the public sector CONCOR. In December 1994, the Indian Customs relaxed some of these constraints. However, there have been problems. With a number of Internal Container Depots being established, the trucker's role increased. But bonding requirements associated with customs clearance in the case of truck movement to inland locations have placed the truckers at a disadvantage vis-à-vis the railways. **As an advocacy measure, the Commission needs to point out these anomalies which need to be removed to provide a level playing field to the trucking sector.**

II. Policy and regulation related

7. We have pointed out that the trucking rates are among the lowest in the world. From a structural point of view, the sector is a highly competitive one – one could even say that that there is too much of it resulting in a very low level 'equilibrium' income level. They are all in what one would call – a low level equilibrium trap. **As a result, service quality is poor – which does not augur well for our domestic as well as our international expansion efforts in terms of competitiveness of the economy. Advocacy should cover the quality aspect of the trucking service (industry) also.** The Motor Vehicles Departments of the States are concerned with the enforcement of the Motor Vehicles Act which provides for regulation of road transport. However, given the present institutional focus on 'revenue', important provisions such as those related to aspects such as mobility, axle load controls, safety, fuel conservation, environmental protection etc., have hardly got the necessary attention. These provisions need to be effectively enforced. Further, as suggested by the World Bank (2005), deficiencies related to motor insurance

such as lack of provisions regarding a statute of limitations, liability limits and thresholds for claims adjudication need to be removed by amendments to the MV Act of 1988. And all these have implications on the quality and cost of service provided and thereby on the competitiveness of services.

8. There has been a demand on the part of operators that the State Government should fix minimum rates for movements as provided under Section 67 (1) of the MV Act of 1998 which gives power to the State Governments to issue directives to the STAs regarding fixing of freight and fair rates. This fixing of minimum rates, according to the operators, would ensure that actual rates do not fall below these rates. In many countries such as U.S., Australia, there have been persistent demands to fix minimum rates even after deregulation so as to ensure reasonable profit margins for the operators. However, given the difficult experience of rate fixation under regulatory regimes of the past, Governments have rejected the demands for minimum rates. In the U.S., there are still requirements to publish tariffs on the part of the operators. At present, the freight rates are largely determined by forces of demand and supply. In an industry where there are large number of operators and intermediaries operating all over the country, it would be practically impossible to specify rates. Walters (1959) had made a case, which made it clear that no rate regulation was necessary given the ample competition. He maintained that 'some firms will find it profitable to establish more or less standard scales of charges from which they will diverge only occasionally. Others will find it profitable continuously to vary the rate charged. These are responses to the preferences of shippers and are quite proper and reasonable. There is evidence of rapidity of adjustment of the industry, the elasticity, the will to innovate and various others aspects of an efficient industry' (p.66). In other words, competitive market forces should define the structure and commercial arrangements within the industry. Rate regulation is an anachronism and even provision for such regulation must be removed. **Accordingly, we believe that the relevant provisions relating to fixation of minimum and maximum rates contained in Section 67 (1) and Section 79 (2) (iv) are redundant and should be dropped from the Act. This is to ensure that there is no more clamor for minimum rates under the existing regulatory framework.**

9. The workhorse of the Indian trucking fleet has always been (and continues to be) a rigid two-axle Mercedes (allowable pay load of 10.2 tonnes) design of 1960s vintage. This has been so because the allowable 10.2 tonne pay load can easily be increased by 40 per cent with minimal changes in the truck body and suspension. While this has had a catastrophic impact on the pavement, it has been financially beneficial to the consigner and operator. There has been a failure (fairly significant) to introduce more fuel-efficient, less polluting, low tare weight trucks with heavy haul multiple axles (Sriraman, 2006). According to World Bank (2005), the introduction of more tractors –trailer Multi-axle Vehicles (MAVs) into the Indian truck fleets could reduce the overall cost of transport including operating costs, quality of services, road provision costs and environmental and other externalities. One area where MAVs are indispensable is in hauling the standard ISO containers. With container traffic witnessing a spectacular growth in the past two decades, the role of MAVs has become significant especially in the context of international trade movements. However, traditionally tax and regulation regimes low-grade highways have typically favored a single axle truck over the MAV. Even with effective control of truck overloading and emergence of MAV friendly highways, it is widely recognized that efficient trucking technology will be introduced and used in India much more significantly only when the perverse system of financial incentives such as high tax rates and tolls on such vehicles is corrected. **As an advocacy measure, Governments need to be advised on this issue so as to ensure that more efficient use of trucking and road capacity is in place. This is especially important in the context of our competitiveness in international markets.**

10. When the reform process began in many countries, in the context of the transport sector, it was felt that a lot could be achieved by simply focusing on improving the efficiency and productivity of individual transport modes. However, given rapid increases in international trade movements, it was felt that only an integrated strategy involving all modes could be effective. In the absence of such an approach, there were major impediments including lack of competitive neutrality across transport modes, low quality and capacity of inter-modal connections, etc. It has been further pointed out that current

institutional arrangements do not appear to have provided the level of coordination and cooperation between modal jurisdictions that are needed to address certain issues. The traditional compartmentalized approach has, it is held, left a legacy of distortions that have created modal biases. The most commonly cited example is overuse of and excessive investment in road transport at the expense of rail. **This point hardly needs to be emphasised here in a detailed way in the context of transport development in India especially in the past decade or so. Thus, the design of public policies that influence investment in multimodal transport systems has been a major area of concern given its impacts on : i) India's international competitiveness, and ii) inter-regional competitiveness.** What needs to be emphasised now is a required focus on development of a multi –modal freight transport system which can lead to improved productivity through eliminations of the bottlenecks. In other words, we must move away from development and investment decision-making based on segmented modes and many tiers of management to an integrated nationally consistent multi-modal approach. **The Commission, as an advocacy measure, should advise the Central Government to initiate a review into the requirements for an efficient and sustainable national freight transport system (encompassing all freight transport modes). Taking into account reforms to date and also the various detailed studies undertaken in this regard, the review should map out what is required to:**

- **Achieve competitive neutrality across all transport modes;**
- **Address barriers to competition and efficiency in individual mode;**
and
- **Enhance interfaces between modes.**

This is an important advocacy measure which could ultimately result in policies which can help ensure that the mix of transport modes reflects the intrinsic efficiency of the different modes compared to current Government policies and regulations that favored one mode over the other.

11. We have already pointed out that there are a number of barriers to free inter-State movements of trucks in India. As a result of these barriers which result in huge delays, transport and transactions costs have increased which further increase the cost of

production distorting competition in the domestic market as well as our competitiveness in the international market. There are a number of legal barriers arising mainly from the legal framework governing indirect taxes imposed by States. Legal definitions regarding the incidence of taxes vary significantly from State to State. Legal procedures for compliance with State tax law are cumbersome and vary widely from State to State. Physical barriers such as check posts as well as legal rights to stop vehicle to check on payment of indirect taxes, operate as major sources of delay in the flow of goods across state barriers. All these features afford important rent-seeking opportunities for State officials. **With an economy dominated by roads and road transport, it is increasingly important that truckers have much the same right as the railways to travel interstate with a minimum of delays. Legal and administrative reforms in this area are needed for India to function effectively as a single market.** At the national level, “Some States like Gujarat have taken up the matter seriously and have initiated measures to have Computerised Inter-State Check posts. Through the use of computers and other electronic devices at 10 remote inter-State border check posts in Gujarat, a team of savvy public officials have reduced corruption and significantly increased the State’s tax revenue by automating the highway toll and fine collection system. The system was a good investment. Within one year a system had paid for itself, illustrating how strategic investments, properly planned can lead to long-term benefits” (ADB, 2003). This new system could be used by the sales tax department of the State, which would monitor the movement of goods in the State, as well as transshipments. Future plans include integrating payment of sales tax on the goods carried on the vehicles. At the international level, the European Union has introduced a range of policies that underpin the single market and boost trade.

As a measure of competition advocacy, the Commission needs to emphasize the importance of elimination of regulatory and physical barriers which can pave the way for a seamless national (single) market to begin with. **The State Governments should be encouraged to carry out competition audit of existing regulations especially those providing for the present system of checkpoints administered by the States and involve a number of agencies (which resulted in restrictions on smooth flow of commodities, the fiscal regime, etc) to determine the need for their continuation.**

BIBLIOGRAPHY

AAI (2003): 'Representation to U.S. Department of Justice by F.M. Scherer', American Anti-Trust Institute, Washington.

ADB (2003): Case Studies, Asian Development Bank, Manila.

ADB (2005): 'Asian Development Outlook', Asian Development Bank, Manila.

AITD (1999): 'Trucking Operations in India', Asian Institute of Transport Development, New Delhi.

Anderson, R.D. and Jenny, F., (2005): 'Competition Policy, Economic Development and the Role of a Possible Multilateral Framework in Competition Policy: Insights from the WTO Group on Trade and Competition' in E.Medalla (ed.) Competition Policy in East Asia, London: Routledge.

Arrunada, B. et.al. (2004): 'Determinants of Organisational Form: Transaction Costs and Institutions in the European Trucking Industry', Industrial and Corporate Change, Volume 13, No. 6.

Carbajao, J. (edited) (1993): 'Regulatory Reforms in Transport- Some Recent Experiences', A World Bank Symposium.

CIRT (1994): 'Road Goods Transport in India - A Study of its Structure and Organisation', Central Institute of Road Transport, Pune, December.

Cruijssen, F., (2003): 'A Survey of European Inter-organisation Data Sharing Implementation in Transportation', Mimeograph, Tilberg University, The Netherlands.

Daniel, D. and Estache, A. (2005): 'How Concentrated are Global Infrastructure Markets?', Working Research Paper 3513, World Bank, Washington D.C.

Debroy, B. and Kaushik, P.D. (2001): Barriers to Inter- State Trade: the Case of Road Transport, Paper submitted to the Ministry of Law, Justice and Company Affairs, Government of India.

Deloitte (2003): 'Modernisation of the Trucking Industry', Report submitted to the Advisory Group on Trucking Industry in India, All India Motor Transport Congress and All India Confederation of Goods Vehicles Owners' Association.

Dugar, S. M., (1997): 'Law of Monopolistic, Restrictive and Unfair Trade Practices', 3rd edition, Wadhwa & Company, Nagpur.

Dutz, M. et.al. (2000): 'Regulatory Reforms, Competition and Innovation', Policy Research Working Paper 2318, World Bank, Washington D.C.

Dutz, M. and Hayri, A., (2000): 'Does More Intense Competition Lead to Higher Growth? Policy Research Working Paper 2320, World Bank, Washington D.C.

Dutz, M. (2002): Competition Policy Issues in Developing and Transition Markets, Paper presented at the OECD Global Forum on Competition, March.

Dutz, M., (2005): 'Road Freight Logistics, Competition and Innovation: Downstream Benefits and Policy Implications', Policy Research Working Paper 3768, World Bank, Washington, DC.

Everett, S. (2002): Deregulation, Competitive Pressures and the Emergence of Inter-Modalism, Australian Journal of Public Administration, No.61, Vol.3, September.

Federal Register (2003): Volume 68, Number 214.

Fernandez, A. et.al. (2003): Quasi-Integration in the Truckload Trucking Industry, Paper submitted to the 2nd Annual Conference of the International Society for New Institutional Economics, Paris, September.

Friedlander, A.F. and Spady, R. H., (1981): Freight Transportation Regulation:Equity, Efficiency, and Competition, MIT Press, Cambridge, MA.

FTC (2003): FTC Approves Filing of Antitrust Complaints against Associations in Three States, Cases Concern Allegedly Illegal Filing of Collective Rates with States

GOA (2005): 'Review of National Competition Policy Reforms', Productivity Commission Enquiry Report, No.33, Government of Australia, February.

GOI (1932): 'Report of Mitchell- Kirkness Committee', Government of India.

GOI (1932): 'Report of Wedgewood Committee', Government of India.

GOI (1950): 'Report of the Motor Vehicle Taxation Enquiry Committee', Ministry of Transport, Government of India, Delhi.

GOI (1953): 'Report of the Taxation Enquiry Committee', Government of India, Delhi.

GOI (1958): 'Report of the Road Transport Reorganisation Committee', Government of India, Delhi.

GOI (1966): 'Report of the Committee on Transport Policy and Coordination', Planning Commission, Government of India, New Delhi.

GOI (1967): 'Final Report of the Road Transport Taxation Enquiry Committee', Ministry of Transport, Government of India, New Delhi.

GOI (1980): 'Report of the National Transport Policy Committee', Planning Commission, Government of India, New Delhi.

GOI (1987): 'Report of the Planning Group on Road Transport for the Twentieth Century', Planning Commission, Government of India, New Delhi.

Hoj et.al., (1995) : 'Deregulation and Privatisation in the Service Sector', OECD Economic Studies, No.25.

Hubbard,T.N., (1998): 'Governance Structure in the Deregulated Trucking Industry', Mimeograph, National Bureau of Economic Research.

ILO (1999): Background document, Symposium on the Social and Labour Consequences of Technological Developments, Deregulation and Privatization of Transport, Geneva.

Kessides, C. (1993): Institutional Options for Provision of Infrastructure, Discussion Paper No. 212, World Bank, Washington D.C..

Kessides, I.N. (2004): Reforming Infrastructure: Privatisation, Regulation and Competition, A World Bank Policy Research Report, Oxford University Press and World Bank, Washington D.C.

Kovacic, B. and Shapiro, C. (2000): 'Antitrust Policy: A Century of Economic and Legal Thinking', Journal of Economic Perspectives, Volume 14.

Lakshmanan, T.R. and Anderson, W.P. (2000): Case Studies in Trade and Transport Integration, Centre for Transport Studies, Boston University, Report prepared for the World Bank Group on Infrastructure, March.

Lata, M. (2005): 'Infrastructural Impediments and Rising Costs of International Trade: A Case Study of India's Export Competitiveness in the Global Market', Ph. D. Thesis submitted to the University of Mumbai.

Lee, C. (2002): The Institutional and Policy Framework for Regulation and Competition in Malaysia, Working Paper No.45, Centre on Regulation and Competition, University of Manchester.

Moore, T.G., (1995): 'Clearing the Track: The Remaining Trucking Regulation, Regulation', Vol. 18, No.2.

Muris, T., (2002): 'Creating a Culture of Competition: The Essential Role of Competition Advocacy', Presentation at the International Competition Network Panel on Competition Advocacy and Antitrust Authorities, Naples, Italy.

NCAER (1979): 'Road Transport Industry', National Council of Applied Economic Research, New Delhi.

Newbery, D.M. and Stern, N., (1987): The Theory of Taxation for Developing Countries, Oxford University Press.

Owen, B. (2003): Competition Policy in Latin America, Discussion Paper, Stanford Institute for Economic Policy Research, Stanford University, November.

OECD (2001): 'Competition Issues in Road Transport'.

Png, I.,(2001) : 'Managerial Economics', Blackwell Publication..

Porter, M.E. (2004): 'Indian Competitiveness: Where Does the Nation Stand?', PowerPoint presentation in Mumbai, January 20.

Rao, T.V.S.R. and Sriraman S., (1985) : 'Disequilibrium in Rail Freight Services', Ajanta Publication, New Delhi.

Ray, R. (1990): 'Optimal Commodity Tax and Consumer Behavior in India: Theory and Empirical Evidence in K. Basu and P.Nayak (ed.) Development and Economic Theory, Oxford University Press, 1992.

Savage, I., (1995): 'Panzar and Rosse Style Tests of Market Structure in the U.S. Motor Carrier Industry', Logistics and Transportation Review Volume 31, No.2.

Smith, H. L. (1995): 'Deregulation and Privatization in the UK Freight, Bus and Coach Industries, Volume III, Regulatory Policy Research Centre, Oxford.

Smith, G., et.al. (1986): 'Assessing the Effects of Trucking Regulation in Korea', Transportation Department, World Bank, Washington D.C.

Sriraman, S. (1998): 'Road Transport Development in India', Current Science, October.

Sriraman, S., (1997): 'Road and Road Transport Development in India', Asian Transport Journal, Asian Institute of Transport Development, New Delhi.

Sriraman,et.al. (1998): Report of the Sub-Committee on Financing, Taxation, Fares and Freight and Insurance submitted to the Steering Committee on "Trucking Operations in India", Asian Institute of Transport Development, New Delhi.

Sriraman, S., (2000): 'Indian Railway Finances- Critical Issues and Emerging Options', Economic and Political Weekly, Vol.XXXV, No.12, March 18.

Sriraman, S., (2006): 'The Transport Sector in India: Has it been technology driven or demand induced?', Directions, Vol.7, No.4, Indian Institute of Technology, Kanpur.

Taylor, J.C., (1995): Regulation of Trucking by the States, Regulation: CATO Review of Business and Government, CATO Institute, Washington D.C.

Thompson, L.S., (2000) : 'Regulatory Developments in the U.S. :History and Philosophy', World Bank, Washington D.C.

TOI (2006): Transporters milk PDS of crores by overcharging, June 13.

Thukral, K. L., (2002): 'Enhancing the Quality of Trucking Services', Report prepared by Asian Institute of Transport Development, New Delhi for Asian Development Bank, Manila.

UN Mission, (1993): 'Transport Sector Needs Assessment in India', Mission Report, United Nations Development Programme, New York.

UNCTAD (1998) : Empirical Evidence of the Benefits from Applying Competition Law and Policy Principles to Economic Development in order to Achieving Greater Efficiency in International Trade and Development, Report of the United Nations Conference on Trade and Development, July.

Vickers, J. (2002): 'Competition Economics and Policy', Mimeograph', Office of Fair Trading, U.K.

Walters, A.A (1959): 'Economic Development, Administration and Regulation of Transport',

Winston, C. et.al. (1990): 'The Economic Effects of Surface Freight Deregulation', The Brookings Institution, Washington D.C.

Wise, M. (2001): 'The Role of Competition Policy in Regulatory Reform', OECD Journal of Competition Law and Policy, Vol.1, No.1.

World Bank (1989): 'Vehicle Fleet Modernization Road User Cost Study', World Bank, Washington D.C.

World Bank (1997): Brazil Multi-modal Freight Transport: Select Regulatory Issues; Report No. 1631- BR, World Bank, Washington D.C.

World Bank (1997): 'Economic Development in India: Achievements and Challenges, A World Bank Country Study', World Bank, Washington D.C.

World Bank (2002): 'India's Transport Sector: The Challenges Ahead', Volume 1, World Bank, Washington, DC.

World Bank (2005): 'Road Transport Service Efficiency Study', Mimeograph, World Bank, Washington D.C.

Yamauchi, H., (1995): 'Regulatory Reform and Changes in the Japanese Trucking Industry', Volume III, Regulatory Policy Research Centre, Oxford.

Zingales, L., (1997): 'Survival of the Fittest or the Fattest? Exit and Financing in the Trucking Industry', Working Paper No.6263, National Bureau of Economic Research.

List of Websites:

www.infreight.com

www.bgta.org

www.businessworldindia.com

www.census.gov/epcd/www/econ97.html

www.competitioncommission.org.uk

www.infobanc.com/logtruck.htm

www.iba.temp.directi.com

www.internationalcompetitionnetwork.org

www.worldbank.com

ANNEXURE I

Format of the Model of Costs of Operations of a Truck- An Example

Std.16 ton GVWTRUCK			
Kms. covered /year	60000		
Payload	9		
Chassis Price(Rs.)	800000	Ch. Price	800000
On road Price(Rs.)	942656	s.tax	80000
Loan Interest rate(%)	0.14	Total 1	880000
No. of years	3		
No. of Installments	35	Octroi	35200
Body Bldg. Cost(Rs.)	150000	Tot2	915200
On road Price and Body Bldg. Costs	1092656		
Down Payment (%)	20	Reg.	27456
Down Payment(Rs.)	188531.2	Tot3	942656
Ins.and serv. Charges(%)	3		
Ins and ser.charges(Rs.)	32779.68		302965
Total(after down and Ins.ch.)	721345.12		1024310
Contract Amt.	1024310.07		29266
Inst. Per month	29266		1053576
Amt. Paid per year	351192		
Fixed Costs			
Av. Amt. Paid/year	465206.9835		
(Con.amt+Down pay+Ins+Body)/3			
Admn. Overheads(Rs.1000/month)	12000		
Road Tax and permit charges	50000		
Driver and cleaner salary	132000		
Loading & unloading	50000		
Broker's commission	50000		
Maintenance repairs	60000		
Wayside Expenses	60000		
Total fixed costs	879206.9835		
Variable costs			
Fuel average (km per litre)	4		
Diesel cost /litre(Rs.)	38		
Litres of diesel consumed per year	15000		
Fuel cost per year	570000		
Tyre life(kms.)	45000		
Avg.tyre cost per year	144000		
Total variable cost	714000		
Total cost per year	1593206.983	540000	
Cost per tonne km (rs.)	2.950383303		

ANNEXURE II

A Case Study of Trucking Operations in Satara

Surveys were conducted in Satara district of Maharashtra with a focus on the city area of Satara. The objective of the exercise undertaken in Satara was to examine relevant issues relating to the Trucking sector in a relatively small market like Satara. Satara district is located in the western part of Maharashtra. It is bounded by Pune district to the north, Solapur district to the east, Sangli district to the south and Ratnagiri district to the west. Raigad district lies to its northwest. It has historical importance in the history of Maharashtra. Traditionally it is an agrarian economy with sugar cane being the major crop. The movements consist mainly of sugar cane, sugar and other grains in and out of Satara.

There are 50-60 transport providers, which vary, in fleet size and nature of operations. The fleet of the truck operators surveyed varied between 1 to 30 trucks. More than 85% are single truck operators and we were given to understand that only two big fleet owners really dominated the market. The small operators are dependent on brokers and booking agents. Sometimes the small operators too acted as brokers and passed on the information regarding the availability of freight to other operators. This market due to its limited geographical spread and nature of business appeared to be very small. Most of the operators operated with over aged fleets. A single truck remains off the road on an average for 8 to 10 days in a month. The capacity utilisation is quite low may be due to lack of business throughout the year especially for the small operators.

The operators were reluctant to reveal the truckload carried by them³. Though the normal capacity load was 9 tonnes, it was revealed that generally the actual truck load is 15-16 tonnes. The truck operators try to increase their revenue realisation by overloading the vehicles in general. It was revealed by one big operator that overloading was resorted to because otherwise there was no possibility of breaking - even. According to them if

³ We were shown a truck which arrived in the market area of Satara which had a truckload of 34 tonnes whereas the capacity load was only 17 tonnes

Truck load is approximately 13-14 tonnes there is break- even,

Truck load 10 tonnes = Operations not viable

Truck Load is 15 tonnes = Profitable operations.

The role of brokers/ commission agent

As there are a large number of small operators, the brokers and booking agents play very important role in price fixation. The freight rate is mainly decided on the basis of distance or kms to be covered. They also determine the allocation of quantum movement. The commission of the broker is fixed per trip. Few small operators also act as commission agents.

As mentioned earlier, there are two big fleet owners who really dominate the market. These two, however, were not competing with each other, as their area of specialisation was different. One of the two transport companies enjoys a monopoly in transporting grains and fertilizers in Satara whereas the other transport company which also owned specialised vehicles has a monopoly position in transporting industrial goods in MIDC area of Satara. The transport company, which has a monopoly in grain movements, regularly bid for government contracts. This operator always managed to get these contracts. Due to their understanding with the government officials they knew the rates quoted by others and got the tender. But even this operator which regularly provided services to the government faced problems, like delays in payments, corruption, administrative inefficiency and lack of basic facilities at the Railway Yards.

The costs of operations of transport operators are substantially high. There are various components of it. But the loading and unloading charges, wayside expenses, and the fuel charges are the major components. Transport companies have to bear the loading charges, which increase their costs, and reduce their profitability. These are called as 'Varai' in Satara. This can be explained as the remuneration paid to the workers for the movement of goods inside the truck and arranging and re-arranging the load inside the truck. These charges vary a lot depending on the location. In Mumbai these charges are highest. But small operators normally take a stand "Jyacha Maal Tyacha Hamal" which means the person to whom the goods belong will bear these charges.

There was one interesting case where truckers owning a single truck formed a group and within the group the business was divided. This enabled them to have collective bargaining and at the same time it reduced their costs as they were sharing certain facilities like office, telephone etc. Apart from this there is trucker's association called "Satara Zilha Truck Chalak Malak Sanghatana" but as reported by the operators and brokers, it hardly plays any role as far as the freight rate or brokerages are concerned.

Other Observations: The bigger transport companies seem to employ drivers and cleaners on a long-term basis. Apart from the salaries these drivers and cleaners are also provided daily allowance when the truck is on road. There are no long-term formal contracts made with the traders. But informal contracts play an important role. Big transport companies also go for hiring of trucks if required. Most of the trucks were single-axle in Satara. Empty movement is a common problem for the operators irrespective of the size of the operator. Most of the vehicles are insured. One or two agents had other side businesses.

ANNEXURE III

A Case Study of Trucking Operations in Goa

Trucking operations in Goa can be categorized into two kinds of operations:

- Ore Movements
- General Movements

Ore Movements:

Goa is essentially a mining economy. Significant iron ore exports take place from Goa. The major mining companies in Goa are Salgaocar, Sesa Goa and Dempo. These companies utilize the services of various local truck operators. The trucking movements for iron ore take place in the following way; initially trucks carry the ore from the mine pit to refinery and after the ore is processed, it is further carried by trucks from the refineries to the jetties wherefrom they are transported to the Mormugoa port trust for export by means of barges. The mining companies are likely to appoint different operators for these respective movements.

The process of selection of truck operators in Goa is quite interesting. There is no formal contract in most cases. Rather; there are agreements between local village panchayats and the mining companies. This is mainly done to keep the village panchayats in good humour so that they would not unnecessarily obstruct trucking movements. As per the agreements reached the mining companies offer truck quotas to the village panchayats. Freight rates are determined mainly on basis of bulk density. For instance, pig iron has a higher bulk density than coke. So the operator could load a given volume of pig iron, and also carry additional part-load in the truck, which is not possible in the case of coke. Hence, coke is charged a higher rate as compared to pig iron.

Another peculiar feature which emerged from the interviews with various users of trucking services in Goa was that operators tended to charge higher rates if users levied a

relatively bigger penalty on theft of ore during transit. Users expressed concern over increasing pilferage of ore during transit. Earlier this was non-existent but is now a common feature owing to the large increase in price of ore in the world market. Pilferage occurred by means of collusion between the truck operators and barge operators. Also, it is very difficult to detect pilferage. For instance, from a truck load of ore, if three chunks of pig iron ore are removed by the operator, it is impossible to detect but could fetch the operator around Rs. 20000. It was revealed that by such relatively “minor” pilferages, a barge owner managed to export his own barge full of ore to china, where the demand for ore is at its peak owing to the booming economy.

The informality in the transactions between operators and users is further emphasized by the way in which price changes are negotiated. Negotiations take place between the truck operators’ association and the mine owners’ association. Important parameters, which act as signaling devices for price changes, are changes in ore prices in the world market. When price of ore rise in the world market due to greater demand, then the operators expected a part of the increase to be passed on to them in the form of higher freight rates. Conversely, when price of ore falls in the world market, they are willing to cut down freight rates.

Entry of new operators in the market for ore movements is highly restricted. As mentioned earlier, the quotas were allotted to various village panchayats. Furthermore, since the movements were of a highly localized nature, i.e. within the limits of Goa, it was virtually impossible for new operators to enter the trucking market.

Non Ore Movements:

For the general trucking movements, there existed both large fleet operators of India as well as smaller truck operators. Each of them had their own clientele. The larger operators moved consignments for companies at various industrial estates at Goa whereas the smaller operators moved for the smaller companies as well as catered to individual movements. The larger operators usually entered into rate contracts with the users. The

customers who moved larger consignments were given certain rate discounts. Other customers were quoted standard rates.

Operators like Transport Corporation of India used a relatively innovative way to get new business in Goa. If a local operator is moving relatively large consignments for a company, the TCI enters into an agreement with the operator. As per the agreement, the operator becomes a franchisee of TCI. While TCI gets an entry into the company's movements, the smaller operator gets to use TCI's brand name to generate new business.

The larger operators denied any kind of harassment at the check posts and also claimed that they did not indulge in overloading. However, they did admit to problems at check posts in those States, which levied octroi on goods movements.

The smaller operators typically owned between one to five trucks. They got their business either by direct contact with customers or in some cases, used the services of a broker for which they had to pay commission to the broker. The commission was either a fixed rate of Rs 250-300 per consignment or was charged at the rate of 15 paise per kg. Freight was charged at the rate ranging from Rs. 1.30 per Kg to Rs.2 per Kg depending on market conditions. Some of the smaller operators did complain of some harassment at the check posts but admitted overloading only to the extent of two tons over the legally permissible limit.

ANNEXURE IV

Information Exchanges

1. Case related to Transport Exchange

(Source: Business World, October 04, 2004)

Driving out the middlemen

For more than five decades, thousands of brokers have dominated the Rs 70,000-crore road freight sector. Now, one company wants to replace them.

Nazeer is a strapping young man who is supremely confident of his abilities. His profession requires him to be in a state of almost perpetual motion, plying up and down the Chennai-Kolkata highway several times a month. He has been a truck driver for five years now. You can tell that he handles the stress as well as he handles the steering wheel. He holds a record for having conquered the eastern leg of India's golden quadrilateral in three days flat. His peers admire him. He also commands the respect of his boss - Narasimha Rao.

Narasimha Rao has been an entrepreneur-fleet operator for 23 years. He owns 42 trucks that ferry goods all over the country. He is sharp and street smart. He has the schedules, movements, and loads of all his trucks plotted in his mind. He lives in Tenali, a small town in Andhra Pradesh. Yet he manages his countrywide fleet, customers and drivers with acumen. But there is one set of people that Rao does not relish dealing with - brokers. They intermediate between those with trucks and those with freight. Munna of Kolkata is one such broker.

Munna's office is a small room. Many drivers come there. Many languages are spoken. Many deals are struck. And many crumpled currency notes change hands. And more often than not, those who give do so reluctantly. Drivers are crowded around Munna's table for the better part of the day... and night. Many like Nazeer, who have come from Chennai, seek Munna out to find a return load for their truck.

Rao would be very disappointed if Nazeer came back to Chennai with an empty truck. He would be equally unhappy if Nazeer is stranded in Kolkata even for a few days

without a return load. Every idle day means loss of revenue. On the contrary, the longer a truck stays on the road, the more profits it earns for its owner. Both Rao and Nazeer know that. Munna knows it too, and exploits it to his advantage.

Rao-Nazeer-Munna - truck owner, driver, broker: this trio forms the backbone of the country's Rs 70,000-crore road freight industry. And more often than not, the broker has the upper hand in this uneasy economic relationship. Even big transport and logistics companies with large fleets outsource a substantial part of their truck requirements. And Munna is much in demand.

Every farmer, every manufacturer, and every trader relies on this trio to lug fruits and food grains, raw materials and finished products across the country. This basic transportation model, as defined by the triumvirate, has survived the last half a century with very little change. Monsoons have come and gone, the composition of India's manufacturing sector has changed, new industrial clusters have sprung up, new highways have been laid, large logistics companies have been born, information technology has transformed the way the transport sector does business, and bigger and better multi-axle trucks have hit the roads. But the broker has remained unchallenged.

Now, one man wants to change all that. He wants to displace the brokers from the trucking chain. J.K. Rajagopal is the CEO of Transport Exchange, a new road freight exchange. It has been working out of 40 offices on the country's highways for almost six months now. He hopes that truck operators and companies will find in Transport Exchange a respectable, efficient and transparent intermediary. Over 5,000 truckers and 500 companies have already signed up with it. Among them is Rao, one of the early members of Transport Exchange.

Rao is a good example of how Transport Exchange can help truck owners. To begin with, Nazeer has now stopped visiting Munna's Kolkata office. For that matter, he doesn't need to visit any broker anymore. These days, when he makes a trip to Kolkata, he stops at Kharagpur. He calls Transport Exchange in Kolkata and places a request for a

return load. By the time he reaches Kolkata, unloads the freight and gets some shut-eye, Transport Exchange has a load ready for him. He no longer has to shell out Rs 2,000 or more to Munna as brokerage. Transport Exchange is happy with less than half that amount.

Moreover, as much as Rao trusts Nazeer, he does not have to worry about the possibility of the latter cutting a deal with Munna or other brokers. He also need not be anxious of finding a return load quickly enough. Rao is certain most of his trucks will soon run at optimum capacity. "The utilisation of my trucks has been pretty much the same since I joined Transport Exchange. But I expect it to improve a lot as Transport Exchange expands," he says.

There are other benefits too. If Nazeer needs some cash in case of an emergency on the highway, Rao only needs to call the nearest Transport Exchange office. (See 'Working Capital: A Trucker's Lifeline') Rajagopal isn't the first one to attempt the disintermediation of the trucking business model. A couple of years ago, Transport Corporation of India (TCI), one of the largest logistics companies, tried it with apnatransport.com. It was a Web-based model, requiring fleet operators to log on to the Net. It failed. Other online ventures have survived, but only just. For example, the Indian Freight Exchange, a multi-modal exchange, has perhaps done better in the sea and air sectors than on roads.

So far, all such attempts have relied on the Internet - one of the greatest tools for disintermediation. In recent times, the Web has cut out brokers in several sectors worldwide, including air tickets, automotive, commodities and real estate. But India's truckers are very different from America's net-savvy car buyers or Europe's travellers. Nazeer is happy with his place behind the wheel. His rough, greasy hands are unlikely to touch computer keyboards in the near future. That is why Transport Exchange - it works through a physical network of offices - has a better chance of success than the likes of apnatransport.com. "Such physical exchanges will work. They have a better chance of

capturing brokerage revenues from the value chain," says a senior executive of a Web-based logistics firm.

Of course, Rajagopal has wired up his 40 offices with the latest in telecommunication infrastructure. Software tracks truck movements and the goods transport requirement of companies, and matches the demand and supply of trucks on the network. Algorithms work out how best to keep a truck on the road for as long as possible and the most profitable routes for truckers. It even teaches them how to combine part-loads for maximum gains. But it stays invisible to the actual users. The staff at Transport Exchange's branches consult their computer terminals and give verbal instructions to the truckers. Nazeer and Rao pick up the phone and interact with real people. They don't have to decipher Web pages. They can walk into a real office, sign real transport orders and collect real currency notes. They don't do business online. Interestingly, the thought of Transport Exchange first originated during the dotcom craze of the late 1990s. The idea was floated by Ashok Leyland Finance (since merged with IndusInd Bank). It drew up a business plan for an Internet-based model. But the management soon realised that a Web-based interface would not work. The idea was quickly dumped.

Rajagopal revived it a couple of years later. He recast the model and took it to Ashley Transport Services, a subsidiary of truck maker Ashok Leyland. He came up with the idea of a physical network which could deliver the benefits of technology to the trucker without him having to come anywhere near a computer.

Transport Exchange branches try to create an environment that truckers are familiar with. The people manning the branches speak the lingo of the truckers. They don't wear ties. The branches themselves are strategically located. Every city has a transaction hub. This is where most deals are done. "We have tried to set up our branches as close to these hubs as possible," says K.S. Kumar, director, Transport Exchange. Moreover, all the branches also have enough parking spaces to accommodate half a

dozen trucks. In many ways, a Transport Exchange is much like any other broker's office - only it has air-conditioning and a few other comforts.

Working capital: a trucker's lifeline

As any trucker will tell you, gaadi chalaane ke liye paisa chahiye (you need money to run a truck). Fuel charges, incidental expenses are all incurred up front. But the trucker gets paid only 15-45 days after he has delivered his consignment. So he needs a bit of cash, or working capital, to keep the business running. While banks and finance companies are willing to lend to them to buy new trucks, they don't fund his working capital needs. As a result, truckers land up at the doors of financiers, who discount their receivables, a hefty cost. Rates vary from 6-8 per cent or, sometimes, if the trucker is desperate, even 10 per cent. Such discounting is a huge market running into several thousand crores, mostly dominated by the unorganised sector. This is where Transport Exchange steps in. It has tied up with a few banks to provide 'challan discounting' services to truckers. And unlike unorganised financiers, the company is offering this at much lower rates.

Rajagopal is working to a simple plan: enter broker territory, and provide all the services a broker offers, but with greater transparency, lower costs and better efficiency. Transport Exchange has a paid up capital of Rs 10 crore and targets a turnover of Rs 10 crore in a year. "Transport Exchange is trying to emerge as the super-broker of the industry. Whether it can break into the business depends on how much value it can add to both sides," says a senior executive of a Web-based logistics firm.

Less than a year from now, the number of Transport Exchange branches would have gone up from 40 to almost 200. Almost every hub and spoke in the country's road freight map would have been covered. The technology and business models too would have been tested rigorously. That is when the real battle with the brokers will begin. But, already, there are signs that the intermediaries aren't happy. "I've been talking to a few brokers and they have all been bad-mouthing Transport Exchange," says Rao.

That animosity will only increase as brokers realise that they are losing their customers. Nazeer, for instance, is much happier walking into a Transport Exchange office than he is walking into Munna's den. But Rajagopal prefers to underplay any

confrontational angle to the story: "The business is so large that we will hardly threaten existing players." Nevertheless, six months after he flagged off Transport Exchange, one thing is evident. Rajagopal is Rao's best friend and Munna's worst enemy.

2. Case related to Bharat on Wheels **(Source: Express Computer, April 19, 2004)**

Keeping track of trucks

The Bharat On Wheels tracking system finds ways to hook the transport industry to the information superhighway.

At any given point of time, around three million trucks are plying on India's roads, keeping the economy on the move, and reaching raw materials or finished goods to their destinations. However, once a truck embarks on its journey, neither consignees nor consignors can tell you where the truck is or what the status of the consignments is, unless the drivers provide these details to them over the phone.

A few novel vehicle-tracking systems based on satellite Global Positioning Systems (GPS), introduced in the recent past, proved nowhere near down-to-earth in affordability or accessibility due to various technical reasons. As a result, the Indian transport industry continues to remain largely under the radar of information technology.

This may change soon. The Bangalore-based BOW (Bharat on Wheels) Network, an IT solution provider for the transport industry, has recently come up with an innovative vehicle tracking solution that works on an interactive voice response system, the telephone network and the Internet.

Says Bharat On Wheels' managing director, P S Selvaraj, "What was missing all along was a vehicle tracking system. Though truck drivers could make long distance calls, there was no one way through which consignors, consignees, transport companies,

agents and vehicle owners could know the status of the vehicle or the consignment. Further, there was no one to support drivers in case of vehicle breakdowns, ill health, security needs and other unforeseen emergencies during the journey.”

According to him, the sophisticated GPS-based models did not take off in India since they involved gadgets costing as much as Rs 30,000 per vehicle, an investment that truck owners were not prepared to make. Also, truck operators needed computers and users with a working knowledge of computer applications.

BOW's answer

When BOW attempted to design an alternative system, it determined that the system would respect certain crucial criteria—the new system had to be the most economical, provide information even without a computer and Internet availability, and even an illiterate person would be able to operate it.

BOW's vehicle tracking system perfected on the basis of an interactive voice response system (IVRS) functions without the need to fix any additional gadget to the vehicle, as is the case with GPS.

The BOW system involves establishing tracking points, usually STD booths having BOW tie-ups, and located at convenient places like truck bays, dhabas, petrol pumps and check posts on national and state highways. Drivers who are given BOW cards furnish information about the vehicle's current location, date, time and destination (plus any other message) to tracking point operators, who pass those details on to the nearest area franchisee office online, where data compiling and transmission takes place. This information is made available to subscribers via both online and offline means.

BOW's IVRS helps truck drivers provide information over the telephone from any location in the country at just the cost of a local call.

Network

BOW is providing its services through an all-India franchisee network. The company is setting up master franchisees in all state capitals and major cities, and area franchisees in all districts and business headquarters across the country.

“We have 34 master franchisees and 121 area franchisees covering all important states, except Madhya Pradesh and a few North-Eastern states. We will soon be increasing the number of master franchisees by adding 18 others and the number of area franchisees by 25,” Selvaraj reveals. In the first phase BOW is targeting a minimum of 100 franchisees and 600 tracking points, which roughly covers the country. Later, it plans to expand to interior locations.

BOW has its own servers with high-speed data transmission, auto data back-up and recovery, besides high levels of security, which assure high quality service without interruption.

“Our franchisees will get immediate returns on registration of vehicles, and very good monthly returns thereafter,” Selvaraj says. “Master franchisees and area franchisees will get complete technical, operational, marketing, promotional and advertising support from us to render high-quality services to customers. By using the BOW service, transport owners can leverage and streamline their services in order to reach out to newer customers and ensure high satisfaction for existing customers.”

Savings

The BOW service costs a one-time registration fee of Rs 500 and monthly service charges of Rs 100 to Rs 300, depending on whether the vehicle for tracking has a state or national transport permit.

In the present situation, a driver has to make long distance calls to communicate with the owners during a journey, so the monthly telephone charges for a running vehicle could be quite high. “On an average, a truck operator with a national permit can save a minimum of Rs 1,000 to 2,000 by using our service,” claims Selvaraj.

“Since BOW’s vehicle tracking system is most economical and highly reliable, we are expecting a minimum 60 percent of truck operators to utilise the services,” says Selvaraj. The company is targeting a minimum of two lakh vehicles to begin with, and

“by the end of this financial year we hope we can reach six lakh vehicles,” adds a very optimistic Selvaraj.

3. Case related to Infreight.com (Source: www.infreight.com)

Infreight.com facilitates The Indian Freight Exchange, which is a portal built exclusively for the logistics and surface transportation industry in India. It is a vertical portal that covers all the critical aspects of the Indian road transport industry. It facilitates the critical and sacred transactions between the Shipper/Client and Transport Company and the Transport Company and Broker in a formal real-time environment via a secure exchange. The Indian Freight Exchange works to facilitate the day to day negotiation and contracting of truck-routes through a system of Global and Open Orders. The exchange also facilitates the regular and contracted transactions between the Client and the Transport Companies. The entire process is conducted via secure transactions, which means only authorised persons have access to the data. InFreight.com recognises that these transactions are sacred to all parties.

The Indian road transport industry is very vast and distributed considering the size of the country and has a market share of about 75%. Its nearest competitor is the Indian railways. Whereas the railways are government controlled and basically amount to a monopoly, the road transport industry comprises mainly of private players, most of who have a regional presence and no single player has a significant individual market share. The Indian road transport industry works through a very well set traditional system of Brokers who supply truck-routes of Market Trucks (which are small owner-operator run fleet of 1-7 trucks), to customers at freight rates which are negotiated on a minute to minute basis. The Brokers supply these Market Trucks largely to Transport Companies, who have infrastructure in place to add value to these truck-routes. The Transport Companies in turn offer a total transportation solution to Shippers/Clients like industries, traders, importers, exporters, government, etc. This value addition is in terms of offering periodic contracted rates (thus buffering the Clients from the vagaries of the market), risk coverage, billing and credit periods, payment of octroi and such statutory incidentals

enroute, etc. Many large Clients/Shippers with large volume despatches also directly contract truck-routes from Brokers and the market by making open offers. This happens in case of time critical or freight critical consignments.

ANNEXURE V

Data Issues

Data problems have been severe. Given that the Industry has never been in the public domain and that it has always been almost exclusively in the private sector, data relating to the industry has always been a problem. Committees after Committees have emphasised the need to develop a systematic database. Very often, Working Groups/ Committees, appointed from time to time, have often commissioned studies for the purpose of their work – which was invariably once every five years or so. But then, each Committee has to look at specific issues which required specific data to be generated. As a result, data generation has been undertaken in bits and pieces as a result of which no systematic time-series data is available even now. The first attempt that was made in 1987, as part of the work of a Planning Group of the Planning Commission (GOI, 1987), built up a database on rail and road movement from the 50s up to the mid-80s. This database has been updated once in a while and is still being used to estimate the rail-road share in the country.

Data that is available mainly relates to the registration of the vehicles in the States in terms of the categories of the vehicle. However, this database does not give the break up relating to the composition of the fleet which is important from the point of view of understanding and examining RGTI. Registered numbers often include vehicles, which have been deregistered. Permits are issued by the STA to operators for intra-State and National movements. However, the database relating to these permits has not been updated on a systematic basis as a result of which one is not able to know the exact number of, say, National Permit holders.

We are aware that the Economic Census that has been conducted almost every five years in the past two decades in India gives some figures relating to the transport industry. The most recent Economic Census (Fifth) was conducted in 2005 with only some provisional results available now. These results indicate the number of enterprises in the country at a certain level of dis- aggregation including transport

enterprises. Further, employment in these enterprises is also attempted to be given. We had a somewhat detailed glance of the report on the Fourth Economic Census of Maharashtra State undertaken in 1998. There is hardly any data that has been found useful for our study of RGTI.

ANNEXURE VI

List of People / Parties contacted

I. List of Operators/Brokers /Booking Agents/Users

1. Mr.Irfan S. Bhivandiwala, Bhiwandiwala and Sons.
2. Mr.Mohinder Singh Ghura, President, Maharashtra Rajya Truck Tempo Tankers Bus Vahatuk Mahasangh (Reg.)
3. Mr.Mahendra Arya, ex- President, Bombay Goods Transport Association, Sri Srinivasa Roadlines
4. Mr.M.C.Khatua, Transport Corporation of India Ltd.
5. ABC Transport
6. Jai Hind Transport
7. Mailspeed Transport Services
8. New Thane Motor Transport, Local Operator
9. Chawala Highway Services
10. Jaydeep Transport Services
11. Roshan Transport
12. Mahanagar Transport
13. Maha Transport
14. Mr.Manzoor Khan, New Bharat Roadlines
15. Mr.Afzal Husain, Iqbal Husain Choudhari Transport
16. Arunah Transport
17. Dombivili Goods Carrier
18. Vishwas Transport Services
19. Mr.Sopan Kadam,Somnath Transport Agency
20. Jai Lakshmi Road Service
21. Mr.Kheradarkar, Jadhav Brothers
22. Mr.B.M.Tambe, B.M. Fortklift Service
23. Mr.Dinkar Mohite, Ambica Water Suppliers
24. Mr.Shahaji, Best Container Movers

25. Manau Containers
26. Mr.Iqbal Singh, Raj Carriers
27. Mr.Prem Kumar , Operator
28. Leelam Transport Co.
29. Mr.Sanjay N. Gogri, Deepak Transport Co.
30. Mr.Navinchandra H. Gori, Deepak Transport Co.
31. Mr.Patel, Patel & Co.
32. Mr.Kailash Pingle, Operator
33. Mr.Parashuram P. Katke
34. Mr.Abid Husain
35. Mr.G. Vipinchandran Nair, Shree Kailash Associates
36. Moosa Transport
37. Jay Mallhar Logistics
38. Dombivli Goods Carrrier, local operator
39. Mr.R.P.Parkar, Sterling Roadways
40. Ajay Cargo Movers, Pvt.Ltd.
41. Mrs.Madhavi, Meghdoot Roadways
42. Mehata Roadlines
43. Vijay Laxmi Transport Corporation
44. Mr. Sudhir Kumar Vashisth, Malik Transport
45. Mr.Mohammad Sharif Liyakat Husain, Baba Transport
46. Mr.Anwar Yusuf Sheikh, Baba Transport
47. Mr.Raghu, Sushanth Road Lines
48. Mr.M.S.Barkade, New Ambica Transport
49. Mr.P.Desai, New Ambica Transport
50. Kolhapur Transport
51. Mr.V.S.Agre, Navarang Road Lines
52. Mr.Laxmanbhai, Sreenath Roadlines
53. Mr.Iqbal Mehar, Mehar Transport Corporation
54. Someshwar Transport
55. Mr.Kishor, Om Shree Roadways

56. Mr.Chandrakant, Prabhat Transport Service
57. Mr.Anil, Shree Krishna Garage
58. Mr.K.Vishwanathan, General Manager, Benzy Transport Corporation
59. Mr.Rajagopal, Canara Goods Transport
60. Mr.Phatak, Kartar Carriers Pvt. Ltd.
61. Mr.V.K.Gopinathan, Jai Bharat Roadways
62. Jalaram Transport Co.
63. Mr.Sachin Abdar, Mahanagar Transport,Vashi
64. Mr.Kiran Namdev Hinukale, Canara Goods Transport,Vashi
65. Mr.Manoj Pokharkar, Siddhi Trans – Logistics
66. Mr.Vasant Barkade, Kataria Transport Agency
67. Hindustan Roadways
68. Mr.Mishra, Prominent Roadways
69. Shivshakti Roadlines
70. Hyderabad Poona Transport Agency
71. Mr.Jain, New Diamond Transport Company
72. Mr.K.Sukumaran, Director, Supergeon Transport Pvt. Ltd.
73. Rama Roadlines
74. Mr.Debesh C. Patra, Territory Manager- Mumbai LPG, Bharat Petroleum Corporation Ltd.
75. Mr.D.B.Shetty, Director, Shrirang Sulpher Chem.Pvt.Ltd.
76. Kheraj Water Pumps
77. Mr.Sattarbhai Khan, New Vijay Transport, Satara
78. Mr.Riyaz Khan, New Vijay Transport, Satara
79. Roman Transport , Satara
80. Sawkar Transport ,Satara
81. Laxmi Transport , Satara
82. Vikam Transport, Satara
83. VRL Transport Satara
84. Transport Corporation of India, Goa
85. Rajesh Transport, Goa

86. Gadge Patil Transports,Goa
87. Deccan Queen Transports,Goa
88. S.V.Transport,Goa
89. Senior Translines,Goa
90. Sesa, Goa
91. Salgaonkar,Goa

II. List of others

1. Mr.B.Channa Reddy, President, All India Confederation of Goods Vehicle Owner's Associations
2. Mr.Chittranjan Dass,Vice-President, All India Confederation of Goods Vehicle Owner's Associations
3. Mr.K.S.Sharma, General Secretary, Maharashtra Tank Lorry Owner's Association (Reg.)
4. Mr.P.P. Puntambekar, Director, Shriram Transport Finance Co.Ltd.
5. Mr.Hardeep Singh, Head- Hire Purchase, Shriram Transport Finance Co.Ltd.
6. Mr.Selvan C, Senior Manager, Shriram Transport Finance Co.Ltd.
7. Mr.Arun Patkar, Partner, Deloitte Haskins & Sells
8. Mr.K.T. Golani, Regional Transport Officer, Motor Vehicle Department, Govt. of Maharashtra
9. Mr.Ravi S. Ganti, Manager Vehicle Sales, Ashok Leyland,Mumbai
10. Mr.Jagannath, Business Consultant, Thane.
11. Mr.R.S.Venkataraman,Business Consultant, Bhandup,Mumbai
12. Mr.R N.Yadav,Golden Transport Organisation
13. Mr.R.N.Rao,General Manager (West), Ashok Leyland,Mumbai
14. Mr.J.M.Saksena, Secretary General, All India Motor Transport Congress,Delhi
15. Mr.Virendra Parekh, Senior Economist, Indian Marchants' Chamber,Mumbai
16. Mr.B.Krishnamurthy, CMO, Aditya Logistics (I) Pvt.Ltd.,Mumbai
17. Mr.Cyrus J. Guzder, Chairman & Managing Director, AFL Private Ltd.,Mumbai

III. List of people met in May and June

1. Mr. Mohinder Singh Dua, President, Bombay Goods Transport Association, Calcutta Express Roadlines P.Ltd.
2. Mr.L.D.Fernandes, Managing Director, All Freight International Pvt. Ltd.
3. Mr.Shashi R. Tanna, Managing Director, Links Cargo Agencies Private Ltd.
4. Mr.Sachin Bhanushali, Sr.General Manager, Container Corporation of India Ltd.
5. Mr.Yash Vardhan, Group General Manager, Container Corporation of India Ltd.
6. Mr.Manish Kumar, General Manager (Customs) and Chief Manager (CFS, Mulund), Container Corporation of India Ltd.
7. Mr.K.Subramanian, Senior Regional Manager, Hindustan Petroleum Corporation Ltd.
8. Mr.Sudhir S. Rangnekar, Director, The Shipping Corporation of India Ltd.
9. Capt.S.Narula, Deputy General Manager, Container Operations, Container Corporation of India Ltd.
10. Capt.Devinder Durga, Deputy General Manager, Incharge Freight, Claims, Port Operations and Break Bulk Operations, Shipping Corporation of India Ltd
11. Mr.Mohan Nihalani, President, All India Importers' and Exporters' Association
12. Mr.Jayant Lapsia, President, All India Liquid Bulk Association
13. Mr.R. Rajasekhar, Vice- President –Commercial, United Phosphorus Ltd.
14. Mr.Siddhartha Bhattacharya, DGM- Logistics, United Phosphorus Ltd.
15. Mr.Nayan M. Savani, Managing Director, Savani Transports Private Ltd.
16. Mr. Naval. H. Mehta, Director, White and Co. Pvt. Ltd.
17. Mr.R.Radhakrishnan, Chairman, Clearship Group and President , The Bombay Custom House Agents' Association
18. Mr.S.H.Phalke, Shree Gurudatta Transport
19. Mr. H.T.Bhivandiwala, Bhiwandiwalla and Sons.
20. Mr.Ashok Sonimindia, Om Shree Ganesh Container Movers

21. Mr.Amit, Om Shree Ganesh Container Movers
22. Mr.Samit, Om Shree Ganesh Container Movers
23. Mr.P. Shridharan, Vice- President, Shriram Transport Finance Co.Ltd.,
Chennai.
24. Mr.R.Sridhar, Managing Director, Shriram Transport Finance Co.Ltd.
25. Mr.Umesh Revankar, Executive Director, Shriram Transport Finance Co.Ltd.
26. Mr.Norbert Noronha,Institute of Logistics Management
27. Mr.P.S.Reddy, Chief General Manager, Bombay Stock Exchange Ltd.
28. Mr. Ravindra P. Purohit, Economic Adviser, Hindustan Construction Co.Ltd.
29. Mr. Deepak Rane, Liasion Officer-Wadala Truck Terminal Project
30. Mr.Mark S. Fernandiz ,Chairmen, Indian Merchant Chamber, Logistics
Management and Infrastructure Committee
31. Mr. Juzar T. Potia, Managing Director, Potia Expotrs Pvt. Ltd.
32. Mr. A.D. Punjabi, Chief Finance Officer, J.M.Baxi & Co.
33. Mr.S.V.Ponkshe,General Manager, J. M. Baxi & Co. Total Shipping Support
Services
34. Mr. Narayanan, J. M. Baxi & Co. Total Shipping Support Services
35. Mr.Ebrahim Latif, Institute of Logistics Management

IV. List of people who have not responded

1. Nisha Roadways Pvt. Ltd.
2. Mr.Ramann Khosala,Cargo Carriers
3. Dorba Roadways
4. Jaipur Golden Transport
5. Associate Road Corporation
6. Bharat Roadways
7. South Eastern Carrier Ltd.
8. Yadav Transport
9. Mount Gomerry Goods Carrier
10. Carwan Roadways Ltd.
11. Delhi Rajasthan Transport Ltd.
12. Jayshree Clearing Forward & Shipping Agency

13. Om Hari Om Roadways Pvt. Ltd
14. Mr. Bhuman
15. Mr. Rajiv Agarwal.
16. Mr. Girish Agarwal
17. Rahul Transport Pvt. Ltd.
18. Bombay Dewas Roadways
19. Mr.M.N.Chaini, President, Maharashtra Economic Development Council
20. Shri.Vijay Kalantari, President, All India Association of Industries..