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ROAD FREIGHT TRANSPORT IN VIETNAM

REGULATION AND COST COMPETITIVENESS



July 2006

This publication was produced for review by the United States Agency for International Development (USAID). It was prepared by Vu Quoc Huy and Vu Ngoc Uyen from Socio-Economic Development Studies Center (SEDEC) with technical support from VNCI.



The Vietnam Competitiveness Initiative (VNCI) is an economic growth project of the United States Agency for International Development (USAID) to improve the competitiveness of small and medium-sized enterprises (SMEs) in Vietnam. The project has three components: (1) Improving the regulatory climate for SMEs; (2) SME capacity building; and (3) SME access to finance. VNCI is managed by Development Alternatives, Inc. (DAI). The Asia Foundation is the principal subcontractor to DAI and is responsible for implementing component one of the project.

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ACKNOWLEDGEMENTS

This report was prepared by Vu Quoc Huy and Vu Ngoc Uyen from Socio- Economic Development Studies Centre (SEDEC) with technical support from VNCI.

The research team has greatly benefited from substantive support and genuine collaboration from Vietnam Automobile Transport Association (VATA) and Vietnam Chamber of Commerce and Industry (VCCI). We would like to thank Mr. Nguyen Manh Hung, and Mr. Nguyen Trong Lieu from VATA, Dau Anh Tuan and Tran Huu Huynh from VCCI, members of VATA in Ho Chi Minh City and Hai Phong for their support, encouragement and guidance, without which this report would hardly be completed. The report has also been benefited from numerous comments and advice from participants of two workshops organised jointly by VATA and VCCI. We would like to thank David Ray from VNCI and Nguyen Dinh Cung, CIEM for their guidance and support for the beginning of the report preparation.

All remaining errors and omissions, and of course interpretations and opinions expressed in this report are of course the sole responsibility of VNCI.

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The Vietnam Competitiveness Initiative (VNCI) is an economic growth project funded by the United States Agency for International Development (USAID). VNCI is managed by Development Alternatives Inc (DAI).

The Asia Foundation is the principal subcontractor to DAI and is responsible for implementing the research and policy component of the VNCI project. The objective of this component is to improve the regulatory environment for business, with a particular focus on regulations governing small and medium sized private businesses. This is the ninth in a series of published policy studies produced by The Asia Foundation under VNCI.



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ABBREVIATIONS

GDP	Gross Domestic Product
GSO	General Statistics Office
RFT	Road Freight Transport
VCCI	Vietnam Chamber of Commerce and Industry
VNCI	Vietnam Competitiveness Initiative
VND	Vietnamese Dong

INTRODUCTION

During the last decade, Vietnam has enjoyed a high and stable economic growth of around 7% per annum. The economy, once dominated by the state-owned sector, is now open to all kinds of ownership, including the private sector. This phenomenon is common to all sectors of the economy and the transport sector is no exception. The growing economy has resulted in an increasing demand for transportation. At the same time, the provision and quality of roads has also been improved recently, due to a large program of infrastructure building implemented by both central and local governments. The transport sector, as a result, has been enjoying a stable growth of around 7% per annum during the last five years, with the small-scale household sector maintaining a large share of nearly 60% of the freight by volume, while the state sector maintains less than 20% of the total freight (GSO, 2003).

The transport sector nevertheless is facing many problems. The World Competitiveness Report has ranked Vietnam very low in terms of competitiveness in transport and logistics. Complaints about the high costs and low quality of services are well documented. A survey conducted by VCCI in 2004 also shows that the majority of companies interviewed said that transportation costs in general are high for them. Transportation costs account for up to 14% of total costs and vary significantly across locations and sectors.

It should be noted that data on transportation costs are not really reliable, due to the limited information available, as well as the different methods of measurement. There are a great number of companies, for example, that have their own trucks and the costs of operating these own-account trucks are usually not separated from the total costs of the main non-transport business. There is a need, therefore to have a clearer picture of the costs for transport services.

Transport service quality, it is commonly agreed, is far from satisfactory. The VCCI survey pointed out that the delivery and quality of service in transport needs substantial improvement and this greatly affects a company's competitiveness, especially in the international market where delivery on time has become one of the crucial factors in competitiveness.

At the same time, due to the low quality of infrastructure and rapid increase of transportation flows, traffic safety has become a very serious challenge. Road crashes and fatalities are on the rise, pushing the Government to adopt tougher measures on traffic controls. While these measures are without any doubt necessary, they also provide significant grounds for regulatory abuses, which in turn increase the costs of operation and maintenance, putting further pressure on the sector's performance and quality of services.

There are many factors that influence the performance of

road transport and the trucking business in particular. The quality of infrastructure, human resources, and overall demand and supply conditions are important factors. However, one of the strongest complaints concerns the current system of regulations on the trucking business and road transport in general. While barriers to entry have been significantly reduced, partly due to overall improvements in the business environment recently (especially since implementation of the Enterprise Law), many complicated and inconsistent regulations remain and impede the sector's development. This study aims to address these issues and examine the potential impact of these regulatory constraints on the performance of road transport and eventually the impact on the competitiveness of the economy. In particular, the study will:

- 1) establish transport costs for the trucking business and the costs of transportation of goods in some selected business using transport services;
- 2) identify the factors that are raising domestic transport costs; and
- 3) identify possible links between recent traffic safety measures and the costs for road freight transport.

The Report consists of five parts:

- The first section will examine recent features of the development of the road freight

transport (RFT) and implications for the regulatory framework.

- The second section will review some of regulations imposed on the RFT, especially those in the area of traffic safety as reflected in Decree 15/2003/NĐ-CP
- The third section will provide rough cost estimates in the RFT, based on two surveys; one on

transport operators and the other on 'on-road' survey which gathers information from drivers regarding their daily operation. An analysis on possible links between traffic safety regulations and their enforcement and these costs is also examined.

- The fourth section will show how companies and drivers see the effectiveness of the current

regulations, their perception on the current business environment and their intended responses to this regulatory environment.

- The final section summaries key findings in cost estimation and recommendations on possible improvement of the current regulatory framework in order to facilitate the development of the RFT.

RECENT DEVELOPMENTS IN RFT AND IMPLICATIONS FOR THE REGULATORY FRAMEWORK

During recent years, the RFT sector has undergone rapid and significant changes in its operation and organization. These changes are reflected in the following key points:

Maintaining an Important Role in the Whole Transport Sector and Sustaining a Rapid Growth for Years in Line with Overall Rapid Growth of the Whole Economy

The RFT accounted for 69.7 % of total freight in 1995. This ratio was 68.4% in 2002 and 67.5% in 2003. In other words, the sub-sector accounts for just over two-thirds total freight for the whole country, excluding international maritime transport (Table 1).

During the same period, the number of operating vehicles steadily increased. The annual growth rate of the number of vehicles was 13% per annum and total loading capacity increased by 14% during the period 1992-2002 (Table 2). High growth in the economy in recent years also gave a boost to development of the RFT. It is estimated, using this data (by

Table 1: Road Freight in Total Freight: 1995-2004 (thousand tons)

Year	Total Freight	Road Freight	Share of Road Freight in Total (%)
1995	132,576.3	92,255.5	69.6
1996	151,154.9	104,814.3	69.3
1997	168,347.5	116,409.3	69.1
1998	178,779.7	123,910.9	69.3
1999	190,219.1	132,137.3	69.5
2000	206,010.3	141,139.0	68.5
2001	223,310	151,483.0	67.8
2002	241,041.8	163,126.4	67.7
2003	261,401.1	175,856.2	67.3
2004 (estimated)	284,929.4	192,562.5	67.6

Source: GSO (2004)

the author) that a 1% change in GDP would result in a 0.8% increase in RFT.

Emerging New Features in Sector Operation and Organization

Rapid and sustained growth of RFT in the last 10 years has been

accompanied by a dramatic change in the way the sector is organized and operates. These changes have transformed the sector, making it remarkably different from its characteristics in the past, particularly when Vietnam's economy was centrally planned. These new emerging features of the

Table 2: Number of Vehicles and Total Road Freight Capacity, 1992-2002

Years	Trucks	Total Capacity	Passenger Cars	Number of Seats
1992	38.1	195.5	17.2	541.0
1995	39.1	224.5	25.6	637.2
2000	69.9	355.2	43.9	874.9
2002	88.2	469.1	60.8	990.9
Annual growth rate (%)				
1992-1995	0.9	4.9	16.3	5.9
1995-2000	15.8	11.6	14.3	7.5
2000-2002	13.1	16.0	19.2	6.6
1992-2002	13.1	14.0	25.3	8.3

Source: GSO (2004)

sector can be briefly characterized by the following:

Greater Diversification of Ownership

The most critical transformations that the sector has undergone in the last 15 years are significant structural changes with rapid growth and an increasing role of the private sector. This is partly a result of policy changes which support a multi-sectorial economy and encourage private sector development. Currently, companies that are characterized by many kinds of ownership – including the state sector, households, private, shareholding and cooperatives – are operating in the RFT arena. The private sector accounts for a significant share and has an important role to play in the sector.

The state sector, on the other hand, has undergone a rapid and quite smooth equitization process and has adapted well to the new business environment. The state monopoly that once existed in RFT appears to be gone and the rights to conduct business have been effectively given to all companies. There is, however, a concern that state regulation and supervision has not been adequate to ensure a level playing field. The market for transport operators is so segmented that small-scale operators in the informal sector can get around many regulations in taxation and technical standards, putting other operators in the formal sector in a less advantageous position in competing for clients and orders.

Greater Diversification in Contract and Labor Relations Arrangements

The organization of the RFT sector has changed radically in recent years and this has a profound implication for contract and labor relation arrangements. Under the central planning regime, transportation operators were organized mostly in state-owned companies and/or cooperatives where the worker-company relationship was rigidly enforced through many institutional arrangements such as long-term contracts, a unified internal system of recruitment and employment policies. This has significantly changed. Transport operators are free to choose a wide range of labor arrangements with drivers and other workers. These arrangements can be a monthly fixed contract, a short-term contract or a haul-based contract, subject only to a flexible agreement between drivers and operators.

According to the monthly fixed contract, a driver will get a fixed amount of remuneration on a monthly basis and has to fulfill some minimum tasks assigned by the company. This arrangement is very similar to most other labor arrangements existing in state-owned companies where job security is ensured but incentives for better labor productivity are limited. On the contrary, a short-term, performance-based contract provides much better incentives and flexibility for drivers. A mixed arrangement between these two forms also exists when part of a driver's salary is paid on a fixed, regular basis and the rest depends on performance.

A special arrangement also exists among members of transport service cooperatives where each member has greater autonomy in carrying out their own business, but the cooperative still plays a role in facilitating members in some services, such as taxation, legal support or joint-ventures such as joint bidding for orders.

In brief, this greater diversification of contract and labor arrangements has provided greater flexibility in doing business for transport operators. At the same time, it gives a better incentive to drivers, whether they are members of cooperatives or simply company contract-workers. There is, however, a concern that in many cases a performance-based contract in fact shifts most of the risks in the business from companies to drivers. Since most drivers don't have equal bargaining power vis-à-vis their employers, the former are in a disadvantageous position. Drivers

often work without insurance or unemployment benefits. Companies have less incentive to monitor drivers' work discipline and law enforcement. In most cases, speeding and overloading are partly a result of drivers using their greater autonomy to obtain their own benefits at the expense of the interest of the companies they are working for.

Greater Diversification in the Business Profile of Transport Operators

Transport operators now reflect a greater diversification in their business profiles. Companies operating in RFT do not work solely on providing transport services. Instead they can combine transport services with other related businesses (and some of them have been so far quite successful). While this tendency of business diversification can be seen in other sectors, This has been a particularly noticeable trend, especially in small and household-based informal segments.

Many manufacturing companies no longer have their own transport units. Instead, this transport service was outsourced during the company's 'rationalization' process when companies' began focusing on the delivery of specialized services. A survey of manufacturing companies in 2005 indicates that the share of transport services that is carried out for these companies by the companies themselves is not significant. For example, a cement factory in Ha Nam province even outsources their supply of limestones to other companies. Ninh Binh Transport Company

took over both supplying and delivering lime-stones "at-gate" to this cement factory.

The more flexible contract and labor arrangements examined in the previous Section also makes it possible for a transport operator to engage in more diversified business activities. Drivers can sign on for ad hoc transport, off the company balance-sheet contract, to more effectively use the vehicle he drives for the company and to earn additional income. Observation shows that many drivers, after finishing a company's contract to transport paddy from the Mekong River Delta to Binh Thuan, used the company's truck to transport fruit and vegetables on the way back for their own gain. Such contracts never show up in the company's financial report, but they do reflect the intensity and effectiveness of using the trucking fleet. Official company-level data therefore often underestimates the degree and magnitude of the vehicles' use and consequently cost information is not accurate.

Greater Diversification of Transport Needs Leading to More Segmented Transport Supply Sources

While the overall demand for transportation has increased steadily during recent years as the whole economy has grown steadily, transport needs have greatly diversified and now have different quality and delivery requirements. Casual observation, especially in the passenger transport sector, indicates that there are many different kinds of demands for traveling, ranging from luxury, express travel to low-quality, low-cost transport services.

A similar movement took place in RFT. As the economy has diversified in terms of demand and market destination, different requirements for transportation services have evolved. Those companies who work in the high-tech area and with international partners, for example, usually require more sophisticated, on-time, high-quality services with new transport modalities such as container transport or express-delivery and multimodal transportation. At the same time, a low-end market for transportation, where costs are the most important factor in a customer's consideration co-exist with these more quality-oriented demands. This 'low-end' market is often price-sensitive; the quality of service is usually of secondary importance and can be easily sacrificed for a lower tariff. The transport market is therefore highly segmented with different suppliers serving different needs for transportation in terms of price and quality of service. This segmentation seems to exist even within the same company, where different units are established to serve different demands and clients.

Dualism in the Sector: Will it Head to the Highway or Race to the Bottom?

Recent developments in RFT – with greater diversification in many areas, notably ownership, business profiles, and contract and labor arrangements, as well as in the market for transportation services – has resulted in an unprecedented change in the way the sector is organized and operates. The sector in fact exhibits a dualism, with two sub-sectors – “modern” and “traditional” – co-existing in a highly segmented and diversified market. The modern segment tends to be

more sophisticated in its organization with up-to-date technology and management, allowing service providers to satisfy less price-sensitive but high-quality demands.

The other, more ‘traditional’ or ‘primitive’ segment tends to operate in a highly price-sensitive environment but with less demand for quality from clients. This segment is usually concentrated in the less formal sector, mainly on a household basis but it can be highly responsive to low-quality transportation demands. Given the current state of economic development – where institutions for law enforcement are relatively weak, state regulation and supervision are often missing or inadequate and informality still persists – this “traditional” segment will remain in existence for a long time. There is a fair chance that both the ‘modern’ and the ‘traditional’ sub-sectors will live on and even flourish together. In other words, segmentation and dualism in RFT will be a part of any RFT developments in the future.

The dualistic characteristic of RFT has a profound implication for future development of the sector, as well as for the sector's regulatory assessment. Each segment or sub-sector does not operate in a vacuum without any interaction with others. On the contrary, they are closely related and interdependent. The modern sub-sector can be an example to the traditional sub-sector; demonstrating a new business future where high quality of services, modern management and technology, and law enforcement are rules rather than exceptions. The modern sector can play a lead role in moving the traditional sector towards a new, more sophisticated

way of doing business.

As markets and demand expand, companies in this sector may need a wider network of second-layer suppliers to form a more comprehensive network of transport service providers, using more integrated forms of operation such as multimodal transport, forwarding, etc. By expanding the network, the modern sector can provide a spillover effect for the rest of the business, pulling the whole sector to a new stage of development. This pattern of evolution would result in a better outcome for the whole sector: all would be heading to a highway.

However, there is another alternative in this scenario. It could be the case that all companies are forced to compete for short-term gains and the result is a race to the bottom: the sector is forced to choose a low-end market strategy which results in a majority of businesses supplying low-cost but low-quality service, low technology and slow innovation. The lack of proper state supervision and weak law enforcement tends to speed up this racing to the bottom process, since low-cost and low-quality transport operators, who practice predatory pricing and violate regulations with little risk of being properly fined, would be the ones leading the market.

While these two hypothetical outcomes are both possible, the state of the current regulatory framework plays an important role in determining the process of interaction between these two trends in RFT development. The following section reviews key issues in the current business environment with a special emphasis on the regulatory framework that influences the sector's performance.

THE REGULATORY FRAMEWORK AND BUSINESS ENVIRONMENT FOR THE RFT SECTOR

RFT Regulatory Framework

Transport operators in RFT operate in an overall business environment like most other sectors. Many macro policies – taxation, land policies and trade policies, for example – are transmitted to and affect the sector as they do for other companies in other sectors. The difference, if any, resides in the magnitude and scope of the affect.

The RFT sector is subject to a number of regulations. Some of these measures are commonly applied to all other businesses in other sectors; others are sector-specific and apply only to this sector. Commonly applied regulations are general provisions governing business practices such as taxation, custom procedures and price controls. The sector-specific regulations include, for example, operator licensing (drivers, technical controllers and technical inspectors), technical standards for vehicles and other required means of transportation, and traffic regulations and enforcement. There are also some indirect regulations which are imposed on other sectors

and businesses but which have a profound impact on the way RFT operates, for example import duty applied to certain types of vehicles and environment standards. While both economy-wide and sector-specific regulations are equally important in shaping the sector's performance, it is the latter which are the main focus of this study.

The current regulatory system can be reviewed using the following classifications:

- Entry regulations.
- Price regulations.
- Technical and environment regulations.
- Traffic regulations and enforcement.

These transport regulations directly affect the performance of RFT, and therefore the other sectors that use its services, because they can influence decisions about:

- (a) the intensity with which vehicles are utilized, which in turn determines the magnitude of costs allocated to each ton-kilometer performed;
- (b) the size of the company and the scope of its operations;

(c) the costs of certain inputs, notably wages, overheads and profit;

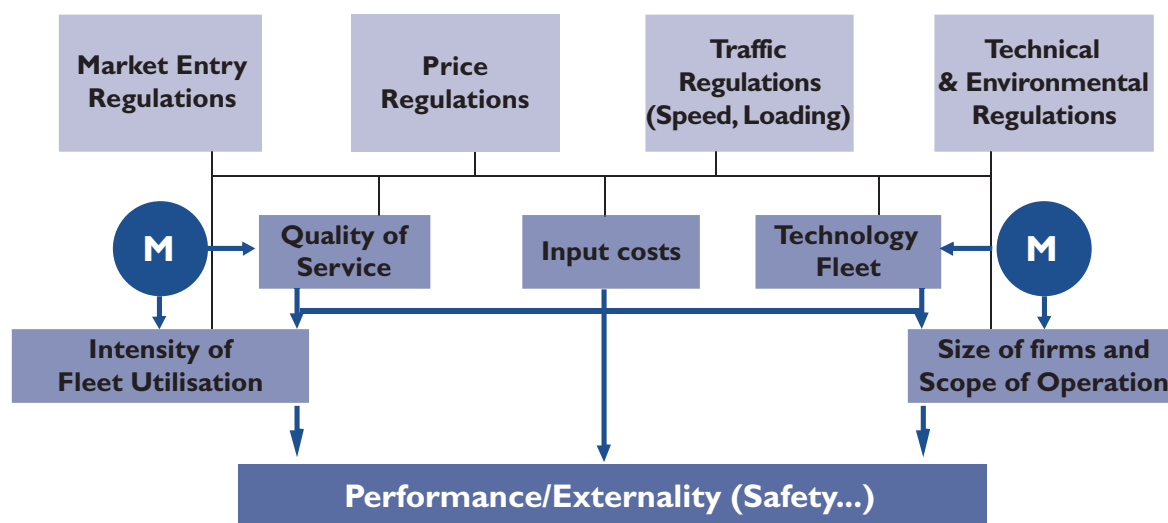
(d) the technology of the vehicle; and

(e) the services offered.

The relationship between regulations and performance of RFT is illustrated in Figure 1.

This study has a very narrowly-focused objective: identifying the major cost items in providing transport services with an emphasis on informal charges, if possible charges from enforcing traffic regulations. Many other equally important factors which may play an even larger role in determining the costs of provision – such as the price of vehicles due to various government controls on imports and production – are not considered in this study. Therefore, the study has selected for further investigation only a few regulations that have been given a great deal of public attention and debate: regulations on speed limits, overloading practices, and dealing with traffic violations will be examined in more details in subsequent sections.

Figure 1: Analytical framework for the Link between Regulations and Business Performance



M: Other general business environment factors

Rationale for Regulations in RFT and International Experiences

Discussions and debate on RFT regulations have been on-going for sometime as has been the case elsewhere. Indeed traffic laws have been debated for years everywhere. One of the most obvious reasons for this high level of attention is its extremely high externality, e.g. the performance of the RFT goes far beyond the economic boundary of the sector and has very far-reaching impact on others.

In order to start with a credible assessment of the current regulatory framework and find a way to improve it (e.g. make it better fit into the current socio-economic and institutional environment), a glance at the rationale of establishing and enforcing regulations in the sector

with international experiences illustrations are needed.

Traffic Law basically has two major goals- to ensure efficient traffic mobility and to promote safety¹. Law contributes to safety by requiring drivers and companies to follow conduct standards in their operation and travel. t, the two goals of traffic regulations are reinforcing and sometimes are conflicting. Speed controls may facilitate better mobility and improve safety. Examples of this kind of measure are replacing intersections with overpasses, vehicle quality improvements, etc. However, in other cases, there are significant trade-offs between two goals: Measures aiming on better safety tend to limit mobility and lower efficiency. Most of the problems that need to be addressed arise when two goals of regulations are conflicting. Even when measures

¹. Evans, 2005.

are mutually enhancing, there is also a problem of cost and benefits involved.

The next question arises is that if all countries are facing similar regulatory problems, are there any differences in the outcomes and what we can learn from this. The answer to this question turns out to be is not easy as one might think but some stylized facts are useful for any impact assessment. The following are some examples in dealing with traffic regulations.

Speed control

Obviously speed control violations are not a rare phenomenon and make a major contribution to the causes of traffic injuries and deaths (Box 1). Exceeding set speed limits is a regular occurrence, despite numerous efforts to deal with this problem. For developing countries, speeding may be even more prevalent due to a number

of specific institutional and development problems.

In a study conducted in Ghana, it was shown that more than three quarters of drivers exceeded the 40 km/h speed limit by at least 10% (Table 3). At speed limits of 80 km/h more than 80% violated the rule by a margin of at least 10%. More than half of drivers violated all speed limits at a margin of 15%.

Overloading

A survey in Pakistan conducted in 2001² indicated that all truck drivers recognized violations of overloading and speeding. Most of them claimed that they bribed the enforcement authorities to lessen the fines. Fines were obviously not a great deterrent, even though most truck drivers understood that they know what they do creates more risks for themselves and those using the roads and surroundings.

Regulation and Enforcement: An Economic Behavior Analysis

The questions arise: Why are people irresponsible and careless even

Box 1. How Does Speed Affect Traffic Collisions and Injury?

The higher the speed of a vehicle, the shorter the time a driver has to stop and avoid a crash. A car traveling at 50 km/h will typically require 13 meters in which to stop, while a car traveling at 40 km/h will stop in less than 8.5 meters.

An increase in speed of 1 km/h typically results in a 3% higher risk of a crash involving injury, with a 4–5% increase for crashes that result in fatalities.

Speed also contributes to the severity of the impact when a collision does occur. For car occupants in a crash with an impact speed of 80 km/h, the likelihood of death is 20 times what it would have been at an impact speed of 30 km/h.

The relationship between speed and injury severity is particularly critical for vulnerable road users such as pedestrians and cyclists. For example, pedestrians have been shown to have a 90% chance of survival when struck by a car traveling at 30 km/h or below, but less than 50% chance of surviving an impact at 45 km/h. Pedestrians have almost no chance of surviving an impact at 80 km/h.

Source: Motorists' Forum, (2005): Road Safety and Speed Management: A study led by the Motorists' Forum. August 2005. Available at <http://www.cfrit.gov.uk/mf>.

though they know that what they do may have serious consequences? Does it mean that the regulations are not effective and need to be abolished? What else can be used to regulate risk behavior? Can a standard cost-benefit analysis be applied in this case given that human life cannot be valued in bare monetary terms? (i.e. it would be absurd to speculate

that \$US 500,000 would be a threshold beyond which it would be not worthwhile to spend to save a human life). Box 2 uses economic reasoning to attempt to partly answer these questions.

In reality, as Deben and Afurkarr argue, there are a number of factors that may explain why regulations

Table 3: Speed Control in Ghana

	40 km/h	50 km/h	60 km/h	80 km/h	100 km/h
Drivers' mean speed	47.8	57.5	70.3	96.5	109.1
Standard deviation	5.3	6.5	9.8	9.7	11.2
Probability that a person exceeds the speed limit by 10%	76.3%	65.0%	67.0%	81.0%	46.8%
Probability that a person exceeds the speed limit by 15%	63.3%	50.0%	55.3%	67.9%	29.9%

Source: Adapted from Francis K. Afukaar (2003).

2. UNDP/ENERCON (2002).

Box 2: Economics of Bad Driving

While rigorous cost benefit accounting seems not to fit with a discussion concerning human life and safety, there exists, nevertheless, a reasonable framework which uses standard economic reasoning to help gauge why a driver behaves like they do when driving.

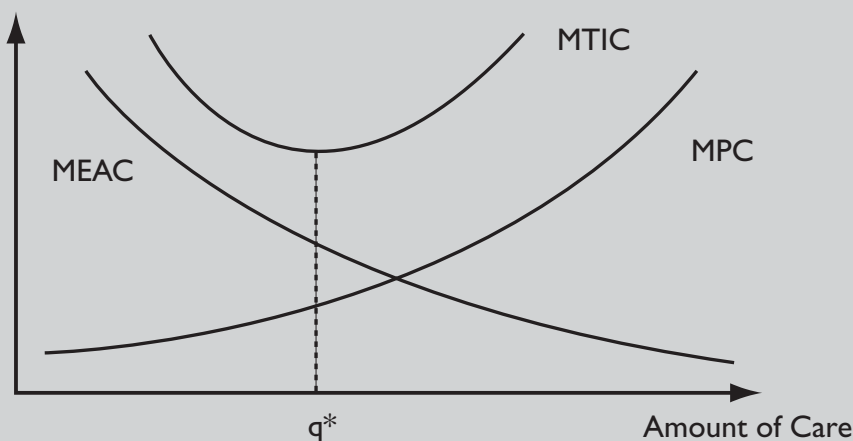
It is commonly recognized nowadays that, for individuals, laws and regulations always have costs and benefits. The behavior of companies and individuals, both parties being rational decision-makers, will depend on their perception about the trade-off between complying with the regulations and the likelihood of enforcement action and any resulting punishments. The net outcomes what we usually observe are the result of this interaction and it reflects on the deterrent effect of regulations. Liesbet Deben provides an interesting graphical illustration how an individual-traffic participant decides what level of care he devotes when driving, based on his own perceptions of the benefits and costs of his behaviour. The benefits that are obvious for a truck driver include the gain of time by the use of the vehicle, payment he receives for each consignment, (depending on load and tariff, saved care and other operating costs). The increased risk of being involved in an accident, the increased risk of getting caught for violation of the law, the increased damage when an accident really takes place are his cost components.

In brief, there are two cost components that a driver has to consider. The first is the marginal precaution cost MPC, which shows an increasing function (upward sloping curve), consists of the cost of the lost time due to taking precautionary measures and the cost of precautionary measures the driver takes. This implies that the more care the driver exercises, the more time he has to spend and the more precautionary measures he has to take. For example, by lowering his speed the driver exercises more care, but at the same time he loses time because he does not get to his destination as fast as when he would be speeding.

The other cost component is the marginal expected accident cost MEAC. It reflects the cost coupled to the reduction of the probability of an accident and the decreased costs that occur when an accident takes place. Its components are, amongst others, the decreased chance of an accident, the decreased chance of being caught, and the decreased damage when an accident occurs. The curve slopes down, indicating that the expected accident cost decreases as precaution increases. The probability of causing an accident drops as soon as the driver takes more precautionary measures; the overall damage decreases as well.

The addition of the marginal precaution cost and the marginal expected accident cost reflect the marginal total individual cost (MTIC). Depending on the personal appreciation of the individual, both cost curves are combined in order to minimise the total cost at the corresponding level of care q^* , which is the efficient level of precaution, i.e. the amount where the cost of an additional unit of precaution equals the reduction of the damage cost. As long as the individual has not attained this care level, he will exercise more care in order to reduce his chance of an accident. Once beyond this point is it not advisable for the individual to apply an extra unit of care.

Figure 2: The Optimal Level of Care while driving



Source: Liesbet Deben (2003)

traffic in general and speed controls, in particular are not strictly enforced, especially in developing countries. First of all, drivers tend to adapt a lower level of care than they should from a general point of view. That is because, Deben argues, they often make false considerations about their benefits and costs unconsciously due to information deficiency and externalities problems. A driver cannot fully realise the costs he may impose upon others when he overloads and/or overspeeds. Therefore, government has a role to play in internalising these costs and benefits, providing appropriate regulations and incentives so individuals could increase their level of care to the socially optimal level. With this system of regulations and incentives, a driver would have to consider whether s/he strictly complies with speeding and/or overloading limits. If s/he complies, there will be some costs involved in the increased travel time, such as more spending on fuel and maintenance. On the contrary, if s/he violates regulations, costs will be saved (time taken for traveling if s/he drives over speed limits or savings because of overloading). However, in this case, s/he would face a fine if the violation is detected. The more fines there are and the more likely the violation will be detected by the enforcement agency, the less incentive to violate the rules. The 'optimal care' devoted to driving is therefore a result of penalty structures and effectiveness of enforcement, as well as the drivers' perception of law enforcement penetration and the level of risk of being detected.

International experiences, as

showed in Deben and Afurkarr clearly indicated that these three main factors i) regulation and penalty structures; ii) public perception of law enforcement and iii) effectiveness of enforcement are responsible for traffic law implementation everywhere. As showed later in this study, this framework is also well applied to the case of Vietnam.

Current Regulations in Vietnam with Special Emphasis on Traffic Safety Regulation: Decree 15³

Appendix I provides a summary of current regulations to the transport sector as a whole and the RFT in particular. Four areas of regulations were briefly examined in this Appendix, namely market entry and licensing, price regulation, technical standard and traffic safety.

Market Entry Regulations

Market entry regulations seem to be quite liberal, especially after the enactment of Enterprise Law. Decree 92 outlines conditions for drivers and companies to participate in transport activities. Few specific requirements for entry remain for specific activities (e.g. trans-border with Laos, special permits for special vehicles), but these restrictions are insignificant by their scope and impact on the whole sector. On the other hand, there are complaints about weak supervision and monitoring of transport operators and issuing of

licenses and anecdotal stories about fake driving licenses, ineffective testing systems, etc.

Price Regulations

Virtually no specific obligations for tariff control are imposed on road freight transport operators, except for subsidized buses and subsidized transport for government orders. According to Decree 92, transport operators are free to set tariffs for their service, subject only to formal notification of their decision to the provincial Market and Price Commission. The Price Ordinance also excludes tariffs of the road freight transport out of the government-controlled price list.

There have been some attempts to intervene in the market from time to time. Decision 32/2005/QD-BGTVT dated 17 June 2005 by Ministry of Transport, for example consider some guiding price settings, depending on roads quality. The Decision did not clarify whether this guidance is applied exclusively to government-subsidised transportation services or more generally. In 2004, under increasing inflationary pressures, Ministry of Transport issued an Instruction⁴ that prohibited all transport operators from 'discretionarily' attempt to increase tariffs. The Instruction said tariffs could be changed only if input prices increased by more than 15 percent and that the request for tariff increase should be submitted to authorities for approval. These attempts in fact have barely realised, according to transport operators. This is because of increasing tough

3. When this study was completed, a new Decree 115/2002 had been issued by the PM to replace Decree 15. See Appendix for more details on this new Decree.

4. Transport Minister's Instruction 18/2004/CT-BGTVT dated 24 August 2004

competition in the sector that put downward pressure on tariffs.

Technical Standards

Technical standards regulations are specified in a broader term in the Road Transport Bill 1991. One of the most debatable issues is certification of technical soundness of vehicles and the issue of phasing out outdated vehicles and vehicle registration and technical checks. One important improvement is that the Vietnam Register has built a database of outdated

vehicles and posts it on its website. However questions remain as to whether this list is exhaustive and how the list can be shared effectively and be easily accessible for both enforcement personnel and to the public.

Traffic Safety Regulations

Decree 15 was issued on 19 February 2003 as a response to a sharp rise in the number of traffic fatalities as well as frequent violations of traffic regulations by traffic participants.

The impact of this Decree has so far been, at best mixed with many complaints from drivers and other traffic participants. The most frequent complaint is that the current system of regulations and fines was designed without due consideration of existing conditions and therefore cannot be properly enforced. The fourth section will examine in more details how these regulations have been implemented and what lessons could be learned from them.

TRANSPORTATION COSTS AND THEIR DETERMINANTS

Methodology and Data Collection Strategy

As discussed in the previous Section, due to dramatic changes in the organization and operation modalities of transport operators during recent years, it is extremely difficult to obtain standard per vehicle accounting data for cost estimations. Decentralization of tasks and duties resulting from more flexible contract and labor arrangements mean that cost items are fragmented across participants in the value chain. Some cost elements remain under the control of the company; others are down-sourced to the level of drivers/operators. Interviews with various drivers and operators indicate that a centralized system of auditing no longer exists in its true sense of monitoring and recording the costs of transport operation. Most of the costs reported in the financial statements of a company for taxation purposes are in fact cost-norms or cost-estimates rather than the real costs accrued during the operation. This is especially true for informal transport operators, small household businesses and cooperatives. This data, if available, are therefore of limited use for cost identification.

In addition, tariff regulations for RFT are flexible and mostly determined by operators themselves. Therefore there is no pressure on transport

operators to provide accurate reporting costs and benefits of an operation. Greater diversification of business profiles also result in more complications for cost identification. Many activities within a company, including non-transport activities, share facilities and therefore have common cost items. Decomposition of these shared cost items is not easy and often subject to arbitrary and inaccurate judgments. Derived cost estimates are therefore not reliable.

The complexity of cost estimation requires an innovative approach if reliable estimates of cost and its components are to be achieved. This study has adopted a mixed strategy for cost estimation which involved sampling at both the company level and at the driver level. The two surveys involved investigation of company's accounting and meetings with key stakeholders; and a direct questionnaire survey of drivers.

The survey, at the driver level, was an 'on-road' survey conducted in order to gain information on road expenditure recorded by drivers in their daily travel. This on-road expenditure survey is important in the sense that it is a more reliable source of information and can reveal a lot of detail about cost items that otherwise would not be possible using traditional cost collection methods based on a company's data. In addition, most

informal charges that drivers have to pay to transport regulators and traffic police, as widely reported by the media, can only be obtained and verified by this method. This approach, although not free of caveats, was considered to be the best option for cost estimation.

The survey, at the company level, involved gaining information from companies' bookkeeping. The weakness of this source of data is that it can capture only a fraction of the total costs for transport operation because many expenditures are 'outsourced' and do not show up on the balance sheet of the company. The extent of this mis-measurement is not easy to verify, but it is clear that one should look beyond this data.

The combination of these two sources of information provides better, more reliable information on costs and cost structure since it better reflects the current system of reporting information, a result of the tendency towards more decentralized management in the sector.

Data Collection Method

For the survey of companies, 49 companies were selected in Hai Phong, Ho Chi Minh City (HCMC) and Binh Thuan. Information was extracted using these companies' statistics (bookkeeping) and

reports. This basically covered all types of costs involved in the operation of transport companies: spending on oil and fuel, salary and remuneration, repairs and depreciation, and management and on-road expenditures borne by the company.

The survey of drivers – the specially designed ‘on-road survey’ – used a questionnaire format which asked drivers several questions about all costs involved in their daily operation, including informal charges i.e. bribes to traffic regulators and enforcement personal. Drivers were asked to fill in all activities and the resulting costs during a period of 15 days. Other important information – such as the content and value of consignments, costs of delivery and total tonnage vs. nominal capacity of the vehicle – were also requested. A total number of 114 drivers located in Hai Phong, HCMC (HCMC) and Binh Thuan were selected for this special survey.

It should be noted that apart from these mainly quantitative survey questions, which aim to source information on the costs of operation in the road freight transport, more qualitative questions were also asked on the magnitude of informal charges and perceptions about the business environment and the effectiveness of regulatory measures, especially those on traffic safety. Two stakeholders meeting and group discussions were also held in Ha Noi and Ho Chi Minh City.

Sample Description

On-Road Survey Sample

Of the 114 drivers selected for the on-road survey, 26 were from

Table 4: Distribution of Drivers by Locality and Responses

	Binh Thuan	Hai Phong	HCMC	Total
Number of drivers who participated in the survey	11	68	26	105
Average number of days filled	6.7	6.6	7.5	6.9
Maximum number of days filled	10	12	15	15
Minimum number of days filled	3	1	3	1

HCMC, 11 from Binh Thuan and 69 from Hai Phong (Table 4). It should be noted that the sample was not intended to be representative by locality since the sample frame is unknown in every sense. The selected drivers were basically randomly chosen by the local automobile associations. Hai Phong has the highest number of drivers selected partly to compensate for the lower than expected responses from HCMC. It should also be noted that a large number of container drivers participated in the survey. This may lead to some biases, in terms of cost composition, because these heavy vehicles are charged higher toll fees than others. Data about fuel consumption would also be affected by this factor.

The survey originally intended to ask drivers to fill in the details about their travels for a period of 15 days. However, the average was seven days with the longest records recorded in HCMC (Table 4).

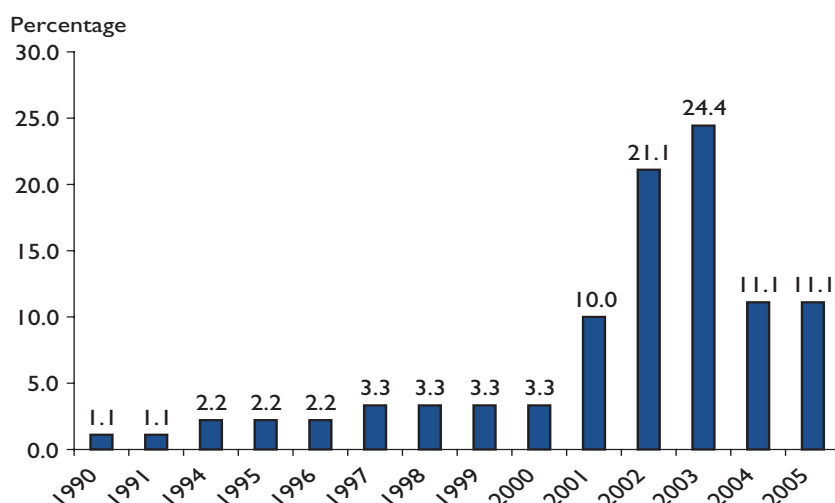
Table 5 indicates some characteristics of drivers and their vehicles. It is interesting to note that regional differences

in most indicators are minimal, especially in regard to the vintage of vehicles. Perhaps this reflects some common trends in the development of RFT across the country or at least among these three big city-transport centers. The fleet of vehicles is relatively old probably because most of the vehicles were imported second-hand and out-of-service from other countries, notably from South Korea.

It is interesting to note that the majority of drivers surveyed had only recently joined the company where they currently worked. Figure 3 indicates the distribution of the number of years that the driver had been in his current job. The data show that most have only a couple of years of experience in their current company. One-quarter of surveyed drivers have been with their companies since 2003; another quarter have less than two years experience in their current job (Figure 3). This may indicate that the sector has a high labor turnover: Drivers change companies quite frequently.

Table 5: Main Survey Indicators by Locality

Indicator	Binh Thuan	HCMC	Hai Phong	Total
Average age of drivers	36	38	33.9	35.1
Average number of years working as driver (years)	9.7	13	8.9	10
Average vintage of vehicles (years)	10.9	11.5	9.8	10.4

Figure 3: Distribution of Drivers by Length of Time Employed

Company Survey Sample

Where the on-road survey provides unique information on cost estimates, the survey of companies, the first data collection method, fills an information vacuum. The quantitative survey was therefore designed to obtain additional information on the scale of operation, other businesses, management overheads and the fleet. Forty-nine transport operators in the three locations of Binh Thuan, Hai Phong and HCMC were selected for the survey. It

should be noted that, since the city of Phan Thiet in Binh Thuan is small, only four transport operators were initially chosen, but subsequently dropped from the analysis because they overrepresented outliers in the sample. These companies in Binh Thuan are occasionally referred to in the data, but mainly for reference purposes.

Table 6 shows the sample composition by location, forms of ownership, type of contracts and labor arrangement. Table 7 indicates company characteristics by location.

Transport tariffs are not subject to any rigid regulations, apart from passenger transport as this sector is subject to continuing government subsidies in different forms. Recently, however, due to fuel price increases, there was an 'unofficial' reminder to transport operators from government agencies not to raise the tariff for fear of its inflationary impact.

Information on tariffs in this study was taken from the on-road survey rather than from company financial reports, the reason being that drivers fill-out invoices which indicate details of each consignment delivered, including information on tariffs and total charges for transportation and the types of commodities transported. This information is reported in the driver's daily report sheet. However, since the management of consignments and drivers is highly decentralized and fragmented, data on tariffs as reported by companies may be too aggregated or normative.

Data from the drivers' survey tends to support the claim that tariffs for RFT are quite competitive. Table 8 shows the average tariff for different commodities by type of vehicles and location. For two types of trucks 'America' and 'Hyundai', tariffs in HCMC and Hai Phong seem to be 'equalized' with marginal differences. For a lighter truck 'Kamaz', the tariff in HCMC is quite significantly lower. Perhaps, for this particular type of truck, overloading may be quite popular. There is a high correlation between low tariffs and frequent overloading: drivers accept lower tariffs so as to obtain orders but further compensate this by overloading.

Table 6: Sample Composition by Ownership, Location and Types of Contracts

Province/ Type of Contract	Cooperatives	Joint venture	Private	Total
By locality				
HCMC	2	4	8	14
Hai Phong	0	6	25	31
By type of contract				
Full contract	2	1	5	8
Monthly-based	0	7	17	24
Mixed	0	2	11	13
Total	2	10	33	45

Table 7: Company's Indicators by Location

Location	HCMC	Hai Phong	Total
Average number of workers	99.3	28.7	50
Average number of vehicles	22.3	8.9	11.8
Average working area (m ²)	3,811.3	7,536.4	6,221.6

Table 8: Average Tariff by Vehicle Types and Location (VND per ton-km)

Type of vehicle	HCMC	Hai Phong
America	1,280	1,266
Huyndai	1,339	1,251
Kamaz	1,060	1,246

A simple regression that relates tariffs as reported by drivers to other key factors – such as distance of haul, type of vehicles used and load weights – was used to find the

key determinants of tariffs. Three types of dummy variables for locality, discrete distance and load weights were also used (Table 9).

The regression results show clearly that the tariff (by ton-kilometer) has a strong and significant correlation with distance and load weights. The more the distance and/or load weights, the less the users have to pay for each ton-kilometer of consignment they request for service. In particular, if the distance of the haul increases by 1%, the user can save 0.4% on the transportation fee. Similarly, if load weights increase by 1%, tariff could be discounted by 0.8%. These two simple results confirm the economics of scale in the sector.

The regression result also indicates that a higher tariff is applied to container transport. Two dummy variables for types of vehicles show their positive and significant coefficients. Furthermore, the tariff tends to have a regional premium with Hai Phong being the most expensive location for road freights and Binh Thuan the cheapest. These quantitative results are consistent with the perception of key informants the team met with during the study.

Container transport has a high tariff because it works in a relatively high-end market where customers are willing to pay more for better service and especially for on-time delivery. Plus there are additional costs for container maintenance and operational overheads. Containers are charged with much higher toll fees, for example. The regional premium may be explained by the fact that informal charges in Hai Phong are much higher than in other locations and transport operators usually pass these costs, partially or fully, to

Table 9: Regression Results: Tariff as Determined by Distance, Load Weights and Locality

Tariff (log)	Coefficient	Standard Error	T-ratio	P>t
Distance (log)	-0.385	0.024	-15.87	0.000
Load weights (log)	-0.825	0.083	-9.91	0.000
Type of vehicles I (a)	0.125	0.047	2.65	0.008
Type of vehicles II (b)	0.131	0.045	2.92	0.004
Load weights of less than 20 tons	-0.125	0.095	-1.32	0.187
Load weights from 20 to 30 tons	-0.279	0.135	-2.06	0.040
Hai Phong	0.921	0.075	12.25	0.000
HCMC	0.909	0.075	12.12	0.000
Constant	10.178	0.228	44.67	0.000

Number of observations: 399

R-squared: 0.6819

Adj R-squared: 0.6753

Root MSE: 0.3406

Note: a) b): All vehicles are classified into three groups; Group I consists of all containers with “AMERICAN” trademark; group II are “HUYNDAI” and group III comprises all others.

their customers. There may also be a possible impact of multilinearity because Hai Phong has a large number of container operators included in the sample.

Results of Cost Estimation Based on the On-Road Survey

Composition of On-Road Costs

Table 10 indicates the consolidated results of cost estimations based on the on-road survey. It is important to note that some important items which account for a large share in total costs are missing in this table because drivers did not have information on items such as depreciation, management costs, and salaries for drivers and others. These missing components have been retrieved from the company data (see the next section). Those costs included in the on-road survey are very much variable costs i.e. they are spent on a daily basis and recorded/observed directly by drivers.

Table 10: Composition of Costs in Total by Locality

Cost items	Binh Thuan	HCMC	Hai Phong	Total
Fuel	75.6	58.3	55.1	59.4
Toll fees	10.6	18.2	32.3	24.0
On-road small repairs	1.1	1.5	1.0	1.2
Parking fees	2.4	2.3	1.4	1.9
Vehicle inspection fee	0.7	0.6	0.2	0.4
Unloading	3.4	7.2	3.5	4.8
Traffic safety fines	0.3	7.0	2.9	3.9
Oil	1.7	1.5	1.5	1.5
Tires	1.2	2.9	1.2	1.8
Car wash	2.9	0.6	0.9	1.1
Total	100.0	100.0	100.0	100.0

Although not complete, this cost estimation can provide useful information about the relative size of some important cost items which are of primary interest in this study. These cost items include fuel, toll fees and, especially, enforcement-related costs such as fines for violating traffic regulations, and informal charges by police and other law enforcement personnel.

Table 10 indicates that *fuel consumption* is the biggest cost item, followed by toll fees, unloading and traffic regulation fines in terms of on-road spending. Toll fees account for almost one-quarter of the total of on-road expenditures as reported

by drivers. This result was supported by discussions with key stakeholders. The reason for a high share of toll fees in the total cost can be explained by two factors. First, there is a large number of container vehicles included in the sample, especially in Hai Phong. This can help explain why there is a sharp contrast in two locations: Hai Phong and Binh Thuan.

The second, and the most important, reason is that there are too many toll stations along Highway⁵ from Hai Phong to Ha Noi where most drivers in the survey travel daily. There have been many complaints about putting too many toll stations along this Highway because of mismanagement and poor coordination between local and central authorities on this issue. It is estimated that a vehicle traveling from Hai Phong to Ha Noi with 120 km of travel has to stop and pay toll fees four times. A toll station installed in Quan Toan, at the gate to Hai Phong City, has been recently demolished⁵ due to complaints by the Hai Phong Automobile Association, but many issues still remain. Even the driver of an ordinary vehicle in Hai Phong has to pay more for toll fees than their counterpart in Binh Thuan.

Fines for traffic safety violations account for around 5% of total on-road expenditure, an estimate which seems to be lower than expected. HCMC recorded the highest share (7%), while Binh Thuan's share was very modest (almost

5. At the time of writing this paper, it was reported that the toll station has been re-installed again! It is evident that attempt to installing toll stations is persistent an on-going despite the costs that this imposes upon transport operators

Table 11: Regression results: On-road Cost Per Ton-km as Determined by Distance, Load Weights and Locality

Cost by one ton-km	Coefficient	Standard Error	T-ratio	P>t
Distance (log)	-0.308	0.027	-11.50	0.000
Load weights (log)	-0.693	0.066	-10.50	0.000
Type of vehicles II	0.115	0.049	2.33	0.020
Load weights from 10 to 20 tons	-0.365	0.097	-3.78	0.000
Load weights from 20 to 30 tons	-0.519	0.125	-4.15	0.000
HCMC	0.923	0.082	11.22	0.000
Hai Phong	1.095	0.081	13.49	0.000
Constant term	9.217	0.207	44.62	0.000

non-existent). One explanation is that HCMC has more frequent overloading, more out-of-date fleets and more complicated and restricted urban traffic regulations. Therefore the risks of being caught are much higher than in other locations. Drivers tend to pay traffic regulators and enforcement personal upfront to avoid even heavier fines that will occur if formal procedures are initiated. These charges (formal and informal) therefore become undoubtedly higher than in other places.

Data on unloading costs show interesting results. The share of this cost component in total ranks third after toll fees and fuel consumption. For drivers in HCMC, unloading accounts for 7.2% of total on-road costs, well above the sample average of 4.8%. High fuel consumption together with high unloading costs may provide indirect evidence of widespread

overloading in HCMC as reported by the media and from interviews with companies and other key stakeholders. Furthermore, the relatively high percentage of fines for traffic safety violations seems to hint to the same issue. *Factors Influencing On-Road Costs*

Finally, a simple regression was conducted to see if any links existed between on-road unit costs (measured by on-road expenditures for one ton-kilometer) and other output indicators such as distance of haul, total load weights by consignment, type of vehicles used and location (Table 11).

It is interesting to note the coincidence between these results and those for tariff. There are negative and statistically significant relationships between unit costs and the distance of haul and load weights. Drivers can save 0.4% of

the unit cost for every percentage increase in haul distance. Similarly, unit costs can decrease as much as 0.7% if a driver can increase the load weight by 1%. It is clear that drivers have an incentive to increase loading or even too overload because they can see the benefits of doing so. According to the data, this is especially true for a medium truck with a loading capacity of from 10 to 20 tons. In terms of location, Hai Phong is the most expensive location and Binh Thuan is the cheapest because of the higher toll fees, higher traffic fines and high fuel consumption due to overloading.

Contract and Labor Relation Arrangements and On-Road Costs

As discussed in the first chapter, there has been a tremendous change in the sector's organization particularly through privatization and rationalization. It is interesting to see how this change has affected some business performance indicators. In particular, it is

interesting to see if transport costs have any link with different modalities of contract and labor management.

In exploring this correlation, it is important to note that three major forms of payment to drivers are utilized in different companies. Drivers can either be paid a monthly salary; they can be given a kind of lump-sum contract where they bear all related costs of the operation and give the vehicle's owner a certain amount of their revenue for a given time period; or they can sign a long-term or short-term contract. Some drivers are also owners of their truck.

It can be expected that different contract modalities may create different incentives for drivers to work and to care about the vehicle they are responsible for. Therefore, it is expected that the costs of operation could also depend on different contract settings.

The on-road survey provides some evidence to support the expectation that the costs of operations depend on different contractual arrangements. Two dummy variables which reflect the impact of full sub-contracting modality and owner of vehicle have both positive and statistically significant coefficients (Table 12). This means that those who are owners of vehicle or those who sign a full sub-contract with the owner of the truck tend to spend more on each ton-kilometer.

These two results are consistent because those who are on full contracts are indeed the real owner, albeit temporarily, of the vehicle. These drivers are responsible (and have incentives) for maintaining the vehicle to ensure its reliable and smooth operation in the long-term. This spending may be offset by other off-road expenditures which are not indicated in the on-road survey.

Table 12: Link Between Contract and Labor Arrangements and On-Road Costs

Cost by one ton-km	Coefficient	Standard Error	T-ratio	P>t
Distance (log)	-0.308	0.027	-11.50	0.000
Load weights (log)	-0.693	0.066	-10.50	0.000
Type of vehicles II	0.115	0.049	2.33	0.020
Load weights from 10 to 20 tons	-0.365	0.097	-3.78	0.000
Load weights from 20 to 30 tons	-0.519	0.125	-4.15	0.000
HCMC	0.923	0.082	11.22	0.000
Hai Phong	1.095	0.081	13.49	0.000
Constant term	9.217	0.207	44.62	0.000

It should also be noted that, while different modalities of contract and labor relation arrangement did have an impact on the costs of transport, they are less important in determining tariffs. A similar regression with these dummy variables shows that only the 'owner of the vehicle' has a negative and significant coefficient. This is easy to explain: the smaller operator has a more flexible price setting with customers and they tend to lower prices. This result may also be consistent with an observation put forward in the first chapter that a small operator may set up a lower price, even at a predatory level, when the operator needs to increase clients and orders.

In summary, the on-road survey reveals that the costs of on-road operations reflect a rather competitive market in RFT. On the other hand, contract and labor arrangements do influence the level of costs, as do different transport regulations. Toll fees and traffic safety regulations pushed up the costs of operation for most transport operators. Whether these costs or regulations are justified remains an open question. A qualitative survey on the perception of companies and drivers may help shed light on this issue.

Cost Estimation From the Company Survey

As mentioned in the previous section, another important source of data for cost estimation comes from the company data. Among the questions asked of the 49 companies surveyed, were specific questions on costs, asking the company to provide detailed information on costs involved in the operation during the first quarter of

the year of the survey.

Table 13 shows the composition of costs according to data received from the company survey. Fuel consumption, as expected, stands at the top, accounting for 37.7% of total costs. This estimate was widely shared and approved by transport operators during the interviews and stakeholders' meetings. A wider variation within the sample is partly due to significant increase of fuel prices during the time when the survey was conducted.

Another part of this variation is explained by the type of vehicles used as shown by the on-road survey. Salary and remuneration account for 14% of total costs. Together with management costs, their share is around 20%. Perhaps, some management costs were missing or underreported because

of different interpretations of what should be included in this item.

Toll fees are quite high, making up to as high as 10% of total costs. Traffic safety fines account for 4%. This is lower than expected, perhaps due to the fact that these fines were in fact effectively shared by companies and drivers due to more flexible labor and contract arrangements, as discussed at length in previous sections. Traffic safety fines reported by companies can therefore reflect only a part of the costs to the whole business.

It should be noted that depreciation seems to be underreported in this survey. The fact that the prices of trucks and cars in Vietnam are very high compared to other countries in the region is well-documented. The high price of automobiles is a

Table 13: Cost Estimation from the Company Survey

Cost items	Share in Total
Fuel	37.7
Oil	1.4
Salary and remuneration	13.9
Tires	10.2
Small repairs	5.8
Depreciation	8.3
Capital repairs	2.9
Toll fees	9.7
Registration fee	0.8
Car parking	1.3
Traffic safety fines	3.8
Car lease	0.1
Management costs	4.0
Total	100

direct result of a protectionist policy that the Government has been pursuing for years in its attempt to establish an automobile industry in Vietnam. Whether this policy will be successful or not is not the subject of this study, but the consequences of this policy for the RFT are very clear: transport operators have already paid a high price for this protectionist practice. As they have to buy new vehicles at inflated prices, they are slow in renovating their fleet and therefore lose their competitive edge.

The relatively low share of depreciation in total costs is an indication that there are problems in reporting this cost item. It seems that most transport operators reported these lower costs deliberately; they lower depreciation costs in order to lower prices so they can survive competition. This was confirmed directly with the research team at the stakeholders' and other meetings. Depreciation has obviously been underreported and needs to be adjusted.

The company survey did not supply detailed information on other indicators, as it did for the on-road survey, so it was not possible to carry out a regression exercise for this part of the survey. However, the research team believes that there could be a strong link between the cost estimates with other similar performance indicators at the company level because on-road relationships can be carried over to this level.

Sensitivity Analysis of Fuel Price Increase

During survey implementation, the price of fuel increased several

Table 14: Fluctuation of Fuel Price by Locality

Price of Fuel (VND per liter)				
	Maximum	Minimum	Mean	Standard Deviation
Binh Thuan	6,585.4	6,000	6,488.9	80.8
HCMC	7,500	5,500	6,462.4	261.4
Hai Phong	8,000	4,000	7,236.4	700.5
All sample	8,000	4,000	6,877.1	657.8

Table 15: Sensitivity Analysis of Fuel Price Changes

	6,400 VND per liter	5,000 VND per liter	8,000 VND per liter	From the sample
Share of fuel consumption in total cost				
Binh Thuan	55.8	47.8	59.5	55.7
HCMC	69.1	61.9	72.2	67.8
Hai Phong	51.4	43.4	55.1	52.6
Total	60.6	52.8	64.1	58.9
Change compared to the benchmark (sample)				
Binh Thuan	0.2	-15.2	9.1	
HCMC	4.1	-18.9	11.3	
Hai Phong	-2.6	-14	8.4	
Total	4.3	-16.5	9.9	

times, from 4,500 VND per liter to around 8,000 VND per liter. Table 14 shows the degree of fluctuation of fuel price during the survey by location. Within the whole sample, the gap between the maximum and minimum values is 2. Hai Phong saw

the widest gaps among respondents because the duration of the survey was longer in Hai Phong than in the other areas.

The fluctuation in fuel prices frustrated the survey team's ability to accurately analyze this important

component. The change in fuel price most probably pushed the share of this component higher and changed the total picture of the costs. To adjust this probability, the team conducted a sensitivity analysis using three price options to see how the overall picture of cost composition would change in different scenarios (Table 15). The three price levels used for comparison are 5,000, 6,400 and 8,000 VND per liter of petrol. These correspond to a -27%, -7% and 16% relative change, compared

to the sample average level of price (the benchmark).

The data indicates that HCMC is the most sensitive to price changes, and therefore transport operators are more vulnerable to price increases, while Hai Phong is the least sensitive to price changes. There are two reasons for this. The first has already been mentioned: the current sample in Hai Phong captured more price fluctuations because the duration of the survey was longer in this area. The second,

perhaps more important reason, is that fuel consumption in HCMC is relatively higher than the other areas. Companies in HCMC would benefit the most from a more flexible tariff determination regime and this is why these companies have strongly pushed to adopt such a regime. More flexible tariff setting, and strict supervision to counter possible predatory pricing practice, combined with cartelization, is important in providing a better, enabling business environment for RFT.

RESPONSES FROM COMPANIES AND DRIVERS: EFFECTIVENESS OF REGULATIONS AND LESSONS LEARNED

The two surveys undertaken by the team on both companies and drivers included a special qualitative section on the implementation of current regulations on speed limits, overloading and dealing with traffic safety violations. This was an attempt to assess the effectiveness of implementing recent measures for reducing traffic accidents and fatalities. As indicated, these regulations impose certain costs on transport operators and this means that a cost-benefit analysis could be undertaken. The scope of this study, however, does not include any cost-benefit analysis. Instead, it deals with this issue indirectly by asking the opinions of drivers and transport operators on how they perceive that these costs and benefits impact of new traffic regulation measures. The study investigates the three most important and debatable issues: speed limits, overloading and dealing with administrative punitive measures, including detaining vehicles and revoking licenses as specified in Decree 15.

Companies' Assessment of Traffic Safety Measures

Speed limits

To the majority of drivers and transport operators, the recent traffic safety controls measures are, at best, a set of quick-fixes that lack empirical justification and are difficult to comply with. These measures have imposed significant additional costs on transport operators, reducing their business performance. The survey's quantitative analysis of cost did reveal the nature of some of these costs. Data indicates that there is a surprising and inexplicable gap between the huge investment in infrastructure that has taken place in recent years and its impact on the performance of transport operators.

Two-thirds of all surveyed respondents, both companies and drivers, claimed that the current levels for speed limits are not well-founded and need serious consideration. Only one-fifth were satisfied with the current levels. Speeding, in this context, seems to be unavoidable. More than half the surveyed drivers confessed that they did break speed limits from time-to-time. When asked to specify the reason, two-third of drivers reported that the regulations are impractical and cannot be enforced. More than half of respondents said

that breaking the speed limit is the only way they can ensure on-time delivery and honor contracts.

Avoiding or breaking the speed limits takes a special form. Since speed limits are not practical for most drivers, they have developed a special system to get around enforcement measures. This involves a special mode of exchange of information, signaling to other partners about the whereabouts of police surveillance so that all drivers avoid being caught. This kind of response to law enforcement has distorted the real picture of the extent to which the law has been effectively implemented. In this context, official police statistics on traffic regulations must be downward biased and therefore misleading.

In terms of traffic safety, this negative response to laws and enforcement has a harmful and counter-productive impact. Drivers report breaking speed limits even more when they see less of a police presence in order to compensate for time lost when there is a high risk of being caught by the enforcement agency and therefore speed limits are observed. In addition, since drivers have to

spend a lot of time monitoring the police presence, they do not fully concentrate on driving. This loss of concentration while driving is very dangerous and increases the risk of accidents. More than 50% of drivers concluded that current speed control measures are not effective.

Necessary measures must be taken in order to reduce road fatalities and speed limits and the enforcement of these limits is one important measure. But the current enforcement measures are inadequate and speed limits as such are not contributing to reductions in accidents and fatalities. The whole issue of traffic regulations, and especially speed limits, needs to be redesigned, formulated and implemented consistently and comprehensively in line with other measures, taking into account the resources available to traffic police.

There were a lot of complaints during the study team's interviews about the lack of coordination between those who build new roads and highways and those who are responsible for the effective use of these facilities. Local governments often set up new residential and industrial areas along newly built roads in order to provide better incentives for developers and to increase revenues for the local budget. These industrial and residential parks have high land prices because these areas often have a higher significance than other locations. However, this policy significantly reduces the potential for using new roads because of the speed limits that are applied to these areas. These limits are often set below what was set on the previous road,

or at the time of design. Speed limits in these areas therefore mean that most of the expected outcomes from the construction of new roads are unrealized. An evaluation report by the Asian Development Bank on a new highway from HCMC to Nha Trang provides evidence to support this observation⁶. Similarly, other areas provide evidence from direct observation, notably along Highway 5 and the Transasian Highway.

It is also clear, from the point of view of both the companies and the drivers, that speed control is necessary but that the way to implement it should be reconsidered and improved. One recommended solution is to establish stationary speed monitoring posts in the most high-risk accident areas. This will help to improve driving practices, and minimize possible abuses and corruption from enforcement personnel. In addition, as for other countries, use of other speed controls and reduction measures – notably speed bumps and rumble strips – will segregate high- and lower-speed users⁷.

Overloading Regulations and Enforcement

Overloading regulations also aim to ensure safer driving and the maintenance and protection of roads. International experience and research shows the negative impact that commercial vehicle overloading has on roads. Taxpayers and conscientious truck operators pay directly for overweight violations of the law⁸.

Truck operators that operate overweight are also likely to be safety deficient. As a result, an added benefit to screening commercial traffic for overloading also provides an opportunity for agencies to screen trucks and drivers for safety violations⁹.

Furthermore, overloading can easily lead to unfair competition because those who practice it without punishment will have price competitive advantages over other truck operators. Enforcing overloading regulations has both economic and social impacts.

However, as in the case of speed limits, overloading regulations have not been well implemented in many countries, especially in developing countries. This survey shows that Vietnam is no exception. Two-thirds of the surveyed drivers report that they often overload and that overloading regulations have not been properly enforced.

Data on loading from the on-road survey also indicates that overloading is a problem, with real loading sometimes exceeding the normal loading capacity by two or three times. Of the three locations surveyed, the situation in HCMC was reported to be the worst, especially for heavier commodities like steel, metal-made goods and other construction materials.

Though an obvious question, it is important to ask: what are the main reasons for drivers and companies to overload? Two main reasons were reported by both companies and drivers: to fulfill contracts and to respond to lower tariffs in the

6. ADB, 2004.

7. Afurkaar, 2003

8. Paul Wesemann, 2000, UNDP/ENERCON (2002).

9. Taylor et al, 2000

market. It is a paradox that, while there are a lot of complaints about the transport market suffering from oversupply (i.e. too many transport operators working in the field with low utilization rates), those who do obtain orders tend to overload. There are also costs for those who overload, such as greater fuel consumption, and more repairs and maintenance due to the rapid depreciation of vehicles.

Despite these additional costs, overloading tends to be widespread because the benefits seem to outweigh the costs and the risk and costs of being fined for violations are relatively small. In addition, the full contract mode between drivers and truck owners – where drivers have full responsibility of truck operations – also creates more incentive for overloading from drivers. High toll fees and other haul-based expenditures and strict limits on the hours of operations for trucks in some areas, especially in HCMC, may also lead to more cases of overloading because drivers see overloading as a way to save time and costs.

Administrative Punitive Measures for Traffic Safety Violations

Various forms of administrative remedies for traffic safety violations are specified in Decree 15 and other related Circulars (see Appendix 2 for examples of different levels of penalties for various violations). The following are the major penalties and remedies:

- Reprimand.
- Penalties, ranging from 100,000 VND to 14,000,000 VND

depending on the severity and the context of the violation.

- Compulsory compensation for damages caused by violations.
- Revoking drivers' licenses for drivers and business licenses for transport operators.
- Termination of business.
- Detaining vehicles.
- "Ticketing" or "punching a hole" on the driver's license.

Decree 15 and administrative penalties for traffic safety violations was a Government response to increasing traffic crashes and fatalities in recent years. Given the severity of traffic fatalities and their costs to society, these measures are necessary and should have been given support. It is fair to say that drivers and transport operators need to share part of the blame for increasing traffic fatalities for a number of reasons that have been widely quoted by the media. Again, as in many other cases, simply having a law does not guarantee that the objectives of the law will be achieved. The most important part is how the law is properly implemented and enforced.

One of the most reported responses from drivers and transport operators to possible fines for traffic violations is to 'lam luat', e.g. negotiate with enforcement personnel to avoid regulations or to lower the level of penalties when violations occur. Forty percent of companies and 90% of drivers said they have done this at least once so that traffic police can ease the fines or just let them go. The on-road survey recorded one case where the driver had to pay fines 25 times

during his 3,500 kilometer return journey from HCMC to Ha Noi. On average, a driver has to spend an average of 80,000 VND for each haul/trip: one fine for every 40-50 kilometers. This result is probably underestimated because drivers may be reluctant to fully report these payments.

This dangerous practice in fact nullifies most of the deterrent effects of regulations. Laws are not enforced and, in addition, giving money to enforcement personnel is considered a small price to pay for violating regulations in order to gain short-term economic benefits – without caring about the possible serious consequences that the driver may inflict on themselves or others. Forty percent of transport operators consider 'lam luat' as a necessary response to improve their business performance.

Neglecting the law and 'making a new law in practice' also promotes the race to the bottom trend discussed earlier. Given current practices, no company can see the benefit of complying with regulations. Complying with laws imposes additional costs. As a result, very few companies have an incentive to increase their law enforcement efforts. But the more they head in that direction, the more they are faced with possible penalties and deeper engagements with 'negotiations'. In this scenario, racing to the bottom accelerates.

According to surveyed drivers and operators, traffic police stop vehicles in a very arbitrary manner and often do not provide convincing evidence of violations. Seventy-three percent of drivers and 77% of transport operators supported

this view. The reason why drivers are so reluctant to resist, and often quickly pay 'unofficial penalties', is, firstly, because they cannot be sure that their vehicles are free of faults and they may risk further fines or impoundment. Secondly, official proceedings for dispute settlements take a considerable amount of time and the final judgment is not often in the violator's favor because of the asymmetrical positions in dispute settlements. Bargaining upfront has proved to be a more efficient way to deal with violation enforcements.

Effectiveness of Traffic Safety Measures: Responses from Drivers and Transport Operators

There is a relatively little consensus between companies and drivers regarding whether the recent measures for improving traffic safety are effective, but same consensus that measures resulted in more harassment and more costs to business. 51% of drivers asserted that measures were not effective whereas only 24.5% of companies agreed that measures were not effective. Forty-five percent of companies reported the opposite view and only 24.0% of drivers shared this view. Both drivers and companies agreed that regulations led to more costs and complications. More than two-thirds of both drivers and operators hold this view.

The reasons for the ineffectiveness of traffic regulations have already been discussed in this report, especially ineffectual deterrent effect due to the conduct of enforcement personnel. Drivers and companies are also dissatisfied with the

Table 16: Effectiveness of Traffic Safety Measures Survey Responses (%)

	Transport Operators	Drivers
Measures were effective	44.9	24.0
Measures were not effective	24.5	51.0
Lead to more costs	71.4	62.5
Lead to more harassments	63.3	78.8

practice of detaining vehicles and making punches on drivers' licenses. To many, revoking driver licenses has little impact on driver behavior and therefore should be used very carefully. Using fake driver's licenses and negotiating with traffic enforcement authorities to avoid severe penalties are reported to be widespread. Again, regulations in this case have not been properly enforced.

Detaining vehicles is particularly unpopular for drivers and transport operators. Eighty-four percent request that this regulation to be modified. One of the major complaints about detaining vehicles is that the decision is not clearly made. It is too arbitrary and not transparent regarding the fees that the owners of vehicles have to pay to release their trucks from custody. There is no responsibility taken for a vehicle's safety during its detention. Detaining vehicles also results in some losses to owners because of delayed delivery, especially for special commodities. It has also been reported that many provinces adopted their own regulations on detaining vehicles that go far beyond Decree 15 in terms of the length of time for detentions, fines and fees for keeping vehicles.

Assessment on Current Business Conditions and Responses

Table 17 rates how companies regard selected issues that effect their business operations. These issues include: the availability to land space for car parking and other supporting facilities; how easy firm can renovate their fleet if they wish or do they face some financial and other difficulties, for example getting licenses for acquiring new vehicles. The degree of competition in the market and its impact on firms' vehicle utilization rate and the ability to get orders are also examined by this survey.

Companies reported the highest rate of difficulty for securing land for car parking and other services. While this land issue has become a common problem for all businesses recently due to changes in both the land market and land policy, the sector finds this especially difficult in terms of business expansion and introducing modern management. Lack of proper parking and lack of service areas for truck maintenance and new value added services raises costs for companies and prevents them from adopting

Table 17: Responses Rates to Issues Facing Transport Operators

Issue	Extremely Difficult	Difficult	Normal	Favorable
Land for car parking and other facilities	31.3	41.7	8.3	4.2
Renovating fleet	52.1	22.9	14.6	0.0
Obtaining orders	12.5	52.1	31.3	2.1
Vehicle utilization rate	2.1	18.8	54.2	18.8
Competition in the business	18.8	62.5	14.6	0.0
Financial source	29.2	47.9	18.8	0.0

new transport modalities. This has become even more problematic since land for the trucking business is far from the first priority of local government land policy.

RFT companies find it extremely difficult to renovate their fleet because of limited financial resources and the impact of high tariff on automobile prices. More than three-quarters of surveyed companies find it hard to buy new trucks. Companies face a difficult situation in phasing out the ageing fleet because of limited financial resources and a highly competitive business environment. A timeframe for phasing out ageing trucks, to commence early 2006, has been received with some pessimism and scepticism by companies.¹⁰ It will add new costs to business operations.

Competition is quite a tough area for most companies. More than 80% reported that competition was difficult or extremely difficult. This is confirmed by low vehicle utilisation rate and the degree of difficulty in getting orders. More

¹⁰ See Appendix 4 for the timeframe for phasing out of outdated vehicles

Table 18: Assessment by Companies of Labor and Contract Issues

Issue	Strongly Agree	Agree	Normal	Don't Agree
Tariff is low	39.6	52.1	2.1	0.0
Drivers are satisfied with their current jobs	2.1	70.8	22.9	0.0
Recruiting new drivers is difficult	2.1	43.8	41.7	6.3
Salary is low	0.0	45.8	27.1	0.0

than two-thirds of surveyed companies said that getting order is difficult or extremely difficult. The reason is not the lack of overall transport demand since the whole economy is growing and total freight has increased for years as indicated in Chapter I. Some companies argue that there is an oversupply in the sector and therefore a need for tougher measures to limit new entries. While this proposal may be counter to the Law on Enterprises and the Land Transport Act (which do not inhibit new entries into the market), better government

supervision is needed to ensure fair competition and a level playing field for all companies.

Table 18 summarizes the assessment by companies of labor and contract issues. On the market side, companies consider the current tariff to be low and most of them favor tariff increases. It should be noted that the current tariff is not high, even from a customer's point of view, a point that has been widely debated but confirmed in the survey.

Concerning labor relationships, 71% of companies believe that

their drivers are satisfied with their current situation despite the complaints and frustrations expressed. In reality, companies do not find it difficult to recruit new drivers. The supply of drivers appears to be abundant and there is no reason to worry about labor force shortages experienced by many enterprises in other sectors, especially in the manufacturing sector.

Drivers themselves however have a rather different perspective on that issue. Only 25% of drivers confirmed that they will stay in their current job, although very few had any clear idea about their future professional life. Most of them are indifferent about this because they don't have many choices. Finding another more attractive job appears not to be an easy task for most drivers.

Responses by Companies to the New Business Environment

How have companies responded to the new business conditions they currently face? Are companies really ready to head to the highway, e.g. moving to a new more professional way of doing business? Or do they have to continue their 'surviving/coping mechanisms' in order to accommodate the current regulatory setting by navigating their way around enforcement and continuing their 'race to the bottom'? Table 19 illustrates the

Table 19: Company Response to the Business Environment

Measures to be taken	Response Rate (%)
Reducing management overheads	81.3
Improving non-emptied haulage	58.3
Raising tariffs	50.0
Overloading	41.7
'Making laws' with officials	39.6
Renovating the fleet	29.2
Passing to drivers	16.7

data on company responses to the business environment that may help to shed some light on this question.

The survey indicates that transport operators have adopted a mixed strategy to accommodate the new business environment. There are positive signs that companies do try their best to move into new stages of development, reducing management overheads and improving the efficient use of their existing fleet. More than 80% of companies did report that improving management and cutting down costs are important measures to improving their business environment. More than 60% aim to improve haulage management and to use their vehicles more effectively in order to reduce empty haulages.

Raising tariffs is not a popular option, as one might expect, at the time

this survey was conducted. On the contrary, many companies realized that, even without any pressure from the Government, there is little room for raising tariffs not because the current tariff is already high but because competition in the market is so tough.

Overloading is also not a viable long-term option for companies nor is 'making informal laws' with officials. However, one should be cautious in interpreting this result because drivers, who are directly operating in the field, have different views. It is interesting to note that renovating the fleet was not a favorable option among surveyed companies. The reason for this reluctance in renovation has been explained previously: companies don't have the resources to do so even if they would like to.

CONCLUSION

In summary, the future for the RFT sector, according to those who participated in our survey is not very promising. Despite the many opportunities created as Vietnam's economy grows and opens up to the world, the sector is struggling given the current business environment. The current system of regulations imposed on the sector seems to be ineffective and even counterproductive. Laws have not been reasonably designed, and therefore cannot be properly enforced and implemented. Survival is believed to be a major coping strategy for the majority of small transport operators working in the RFT as a rational response to this regulatory environment. This 'survival' strategy aggravates 'the racing to the bottom' course of development of the sector, which is not an effective long-term strategy.

Improving the performance and competitiveness of the RFT sector requires a comprehensive approach that takes into account many dimensions of technical aspects and the business environment in which the sector is operating. Not only the cost and benefits of the transport operators and drivers themselves that need to be taken into account but the diverse and sometime conflicting interests of so many other participants in the sector, ranging from non-motovehicle travelers to infrastructure developers and local governments and law enforcement authorities at all levels and profiles need also be present. This truly public policy

debate should be promoted and a consultation mechanism through which different stakeholder views are shared and discussed should be established.

In the short-term, measures on traffic safety regulations should be revised and evaluated taking into account views and opinions from different stakeholders. While views may differ because of different costs and benefits involved in changing regulations, some basic principles should be used for this regulatory review.

1. Making traffic control measures more transparent and reasonable. It was almost unanimous during our discussion that speed control measure should be implemented with in a more transparent manner and with better justification. It is important to avoid the current practices of using hidden speed detecting devices to catch speed violators and to fine them. This extreme penalty measures have been ineffective in stopping speed violation. A more efficient way to deal with this issue in the short-term is to install speeding detecting devices with clear sign of warnings in the most accident-prone session of the transport networks.

2. Enhancing the registration and supervision system in order to have better and updated information on the current truck fleet and its road-worthiness. A computerised system of registry can provide a lot of needed

information for this purpose. A listing of out-dated vehicles on the website of the Vietnam Registration is a useful example. It would be even more useful to expand this database and make it more accessible by using more convenient method of data storage and transmission, for example with possible utilisation of paging mobile phone services.

3. Overloading can only be prevented if consistent measures are applied. Right now, because of the current system of fines and punishments, no company has the incentive to follow the regulations. Breaking this vicious circle may take time but strict enforcement is needed.
4. Competition enforcement measures should be enhanced to prevent two extreme cases: predatory pricing practices and possible collusion among transport operators. While the latter seems to not be serious in the short term, it may become a problem as consolidation process takes places when big companies enter and dominate the high-end market. On the other hand, the low-end market needs to deal more urgently with predatory pricing practices.

In the longer term, a comprehensive and coherent strategy of development of road infrastructure should be developed in line with improving the business environment to make better and more efficient use of this newly built infrastructure. Better coordination between infrastructure developers

and those who are involved in using this infrastructure such as automobile industries, transport operators, local governments need to be developed in order to overcome conflicting regulations and ineffective enforcement. A proper balance between the interest of local governments

and central agencies in charge of different aspects of traffic safety and utilization regulations should be established in order to minimize vested interests and to prevent them from undermining public interests. Better planning and zoning is needed to increase effective use of road infrastructure and facilitate

more effective speed control. Finally, a clear road map for phasing out protection of automobile industries and price controls is needed to free the sector from unnecessary and ineffective regulations so it can increase their competitiveness in a new environment.

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APPENDIX I: A SYNTHESIS

TABLE OF REGULATORY REVIEW

Areas of regulation	Scope of regulations	Level of enforcement	Issues at stake	Possible improvement
Market entry. Licensing	For transport operators and for drivers. Decree 92.	Normal	Complaints about weak supervision and monitoring of transport operators and issuing of licenses. Anecdotal stories about fake driving licenses, ineffective testing system. Few specific requirements for entry remain for specific activities (e.g. trans-border with Laos, special permits for special vehicles).	Better system of monitoring and testing. Better supervision of informal transport activities.
Price regulation	Very limited control. No specific obligations for tariff control, except for subsidized buses and subsidized transport for government orders.	Not relevant	Lack of competition regulations on both extremes: avoiding cartel and predatory pricing practices. Sectorial attempt to intervene: Examples of tariff rigidity in recent months, Decree by MOT on guiding 'price setting; depending on roads quality'.	Better enforcement of the Competition Law and Price Ordinance Developing a workable mechanism to avoid possible collusive leading to cartel practices Improvement the state supervision to deal with possible predatory pricing practices.
Technical Standards	For all vehicles and specific issues for oversize, overweight, dangerous transport. Inspection and registration issues. Phasing out outdated fleet for both passenger and freight transport.	Satisfactory	Roadmap for phasing out the outdated fleet. Regular quality check and responsibility for inspection, checking services.	Encouraging the private sector into inspection Better and simplified procedures for regulation inspection and check-ups.

Areas of regulation	Scope of regulations	Level of enforcement	Issues at stake	Possible improvement
Traffic Safety	Speed limits. Overloading controls. Technical inspections. Specific responses to increased crashes and fatalities.	Very weak and uncoordinated	Regulations are not feasible. Enforcement is weak. Room for corruption and harassment. Weak coordination with other agencies to ensure sustainable safer driving.	Need better coordination with other agencies to ensure regulations are reasonable, sound and enforceable. Combining with other safety measures. Better planning, zoning to increase effectiveness of newly built infrastructure. Improve public awareness of safe driving.

APPENDIX 2: LEVEL OF FINES APPLIED TO DIFFERENT VIOLATIONS OF TRAFFIC SAFETY IN DECREE 15

Amount of fines applied	Action committed as specified in Chapter 2	Action committed as specified in Chapter 4
Up to 30KVND	Art, 9 : no seatbelt	
From 40 to 80KVND	Violating traffic rule: driving on the right lane, follow traffic lights/signals; not using signaling lights when overtaking or turning	From 100-200: Lack of small parts for the vehicle such as horn, number plate lights, speedometer
From 80-120	Not following traffic regulators instructions. Turning at prohibited points Driving into a prohibited zone and/or one-way street.	
From 140-300	Inappropriate overtaking (art. 9.4)	
From 300-500	Don't let others overtake when needed Don't use lights when passing a tunnel Pulling motorbike riders along by cars. Using alcohol	
From 500-1000	Exceeding speed limits up to 20% Stop the vehicles at inappropriate places resulting in traffic jams.	No break systems, inappropriate tyres and transmission boxes
From 1000-2000	Exceeding speed limits more than 20% Using alcohol Running away after committing an accident Exceeding speed limits and resulting in an accident but not serious enough to have a criminal case. (Art. 9.7)	No driving license or inappropriate license, number plate, no security inspection certificate.
From 3000-5000		Vehicle of inappropriate design, with expired date, with unauthorized structures, modified design, color without authorization

Source: Decree 15

APPENDIX 3: DECREE 15 ON DETAINING VEHICLES AND MAKING PUNCHES ON A DRIVER'S LICENSE

	Making punches	Revoking licenses	Detaining vehicles
Article 9			
Section 4	x		
Section 5	x		
Section 6	x		
Section 7	x	90 days	
Section 8	x	180 days	
Section 9	x	Unlimited	
Article 10			
Section 4	x		
Section 5	x		
Section 6	x	60 days in a, b, c	
Section 7			
Section 8		Unlimited	60 days
Section 9		Unlimited	60 days
Article 21			
Section 4	x		15 days (a)
Section 5	x		
Section 6	x	90 days	
Section 7	x		
Section 8	x		
Section 9	x		30 days
Section 4	x	Unlimited	



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