

**SEVENTH PARLIAMENT OF SINGAPORE**

---

**First Session**

---

**REPORT OF THE SELECT COMMITTEE ON  
LAND TRANSPORTATION POLICY**

**Parl. 1 of 1990**

---

**Presented to Parliament:  
2nd January, 1990**

---

## **COMPOSITION OF THE SELECT COMMITTEE**

The Select Committee was appointed by resolution of Parliament passed on 4th August, 1989, and comprised the following Members nominated by the Committee of Selection:-

Dr Hong Hai (Chairman).

Dr John Chen Seow Phun.

Mr Chiam See Tong.

Mr Lim Boon Heng, Deputy Speaker.

Mr Ng Pock Too.

Dr Augustine H.H. Tan.

Dr Wang Kai Yuen.

Encik Yatiman Yusof, Parliamentary Secretary to the Minister for Foreign Affairs.

---

## CONTENTS

	<i>Pages</i>
Report of the Select Committee ... ..	1-17
Appendices	
I List of Individuals and Organisations from whom Written Submissions were received by the Select Committee ...	A 1-3
II Written Submissions of Representors from whom Oral Evidence was heard by the Select Committee ... ..	B 1-160
III Minutes of Evidence ... ..	C 1-187
IV Minutes of Proceedings ... ..	D 1-12

## **REPORT OF THE SELECT COMMITTEE ON LAND TRANSPORTATION**

The Select Committee, constituted pursuant to resolution of Parliament to conduct public hearings on Singapore's land transportation policy, has agreed to the following Report:-

### **Introduction**

1. On 4th August, 1989, Parliament resolved -

"That this House appoints a Select Committee to conduct public hearings on Singapore's land transportation policy with the following terms of reference:

- (i) to examine the need for measures to curb road usage and the effectiveness and appropriateness of measures currently in force;
- (ii) to examine current policies for controlling the population of motor vehicles;
- (iii) to study the role of taxis in the national transportation system and to examine the need for regulating the taxi population and taxi fares;
- (iv) to assess the adequacy of the public transportation system;
- (v) to consider any other policy or measure pertaining to land transportation as the Select Committee deems appropriate; and
- (vi) to make recommendations."

### **Membership and Meetings of the Committee**

2. (a) The following Members were nominated to the Committee by the Committee of Selection:

- (i) Dr John Chen Seow Phun;
- (ii) Mr Chiam See Tong;
- (iii) Dr Hong Hai;
- (iv) Mr Lim Boon Heng;
- (v) Mr Ng Pock Too;
- (vi) Dr Augustine H. H. Tan;
- (vii) Dr Wang Kai Yuen; and
- (viii) Encik Yatiman Yusof.

(b) At their first meeting on 22nd August, 1989, the Committee elected Dr Hong Hai to the Chair.

3. The Committee held 9 meetings.

## Invitation to the Public to Submit Views

4. The Committee issued a press release on 23rd August, 1989, inviting views and representations from members of the public and from organisations interested in the matters covered by the Committee's terms of reference. In particular, submissions were invited on the following topics:

- (i) use of car pricing or a quota system to control the car population;
- (ii) feeder services from private estates to MRT stations;
- (iii) evening ALS scheme;
- (iv) car parking and road pricing charges as a means of regulating road usage;
- (v) commercial vehicles; and
- (vi) improvement of bus services.

5. The closing date for submissions was Saturday, 23rd September, 1989. As the Committee had received several requests for extension of time for the submission of written representations, the Committee decided to extend the closing date by two weeks to Saturday, 7th October, 1989, and a press release of the extension was issued on 27th September, 1989.

## Written Submissions and Oral Evidence

6. 71 written submissions were received by the Committee and a list of the names of the representors is contained in Appendix I to this Report. A breakdown of the submissions by affiliation is as follows:-

Individuals ...	50
Academic institutions	3
Professional organisations	11
Political parties ...	1
Taxi organisations ... ..	2
Government and quasi-government institutions ...	4*
	<hr/>
	71

Broadly, the submissions received may be classified under the following categories:-

- (1) Car ownership restraint measures;
- (2) Car usage restraint measures;
- (3) Alternative modes of transportation;
- (4) The public transportation system;
- (5) Taxis;
- (6) Commercial vehicles;
- (7) Improvements to road infrastructure;
- (8) Miscellaneous.

---

\* Ministry of Communications & Information (1); Public Works Department (1) and Singapore Armed Forces Reservists' Association (2).

7. After due consideration of the written submissions, the Committee decided to hear oral evidence from the 28 representors who are listed and whose submissions are reproduced in Appendix II to this Report. Oral evidence was heard in public on 2nd and 3rd November, 1989, and the Minutes of the Evidence taken are annexed to this Report as Appendix III.

8. A brief summary of significant views expressed in the written submissions received and the oral evidence heard is set out in the Annexure to this Report (pages 15-17).

## **Overview**

9. The land transportation situation in Singapore is faced with an inherent constraint: land is scarce and the amount of land allocated to roads must compete with equally important claims on space for offices, factories, homes and recreational facilities.

10. The situation acquires social and political dimensions as increasing numbers of Singaporeans view the ownership of cars as an integral part of their middle class aspirations. This problem will worsen as the population increases towards its target level of 4 million and as incomes rise to a level comparable to that of Japan and the advanced Western economies.

11. The Singapore government has consistently been committed to keeping our roads free of serious congestion to enhance our quality of life and to allow the free movement of people and goods for economic activity. The Select Committee agrees with this basic position.

12. In view of the nation's land constraint, there is but one inescapable conclusion: the number of vehicles on Singapore roads must be controlled and limited below the level that a free market in vehicles would create. Middle class aspirations for car ownership must therefore be tempered by the realities of our nation's resource limitations.

13. There are however effective measures that can be taken to mitigate the impact of car ownership restraints. The most important of these is the provision of a comfortable, convenient and efficient public transportation system that is acceptable to all sectors of the population: young and old, blue-collar and office workers. This in our view is the most challenging task facing the Ministry of Communications and Information.

14. The Select Committee's deliberations and the submissions received covered a wide range of problems and issues. The Committee did not set itself out generally to engage in detailed analysis of the issues or to provide specific solutions to the problems. This would have required more technical expertise, time and manpower resources than were available to the Committee. However the Committee focused on a number of key issues and dealt with them from the point of view of policy and principles. The Committee's observations and recommendations are therefore broad in nature and subject to more detailed study by government officials.

## Observations of the Select Committee

15. The following observations cover some of the issues of greater interest to the public.

### 15.1 *Ownership versus Usage Measures*

The Committee observes that there is a tendency for members of the public to regard usage restriction measures like Electronic Road Pricing (ERP) as the panacea for the road congestion problem. This misconception should be dispelled. Usage measures, when extensively applied, are likely to be just as painful if not more painful than ownership measures. They also carry the odium of being recurrent, on a daily basis, as compared to ownership restraints which are largely of a one-time nature.

The correct way to view usage restraint is that it is a supplementary instrument to sharpen the efficacy of ownership restraint measures. Ownership measures, basically the pricing of vehicles, act to some extent like a blunt instrument: by themselves they cannot ensure the optimal utilisation of our roads. If they led to an acceptable level of congestion during peak hours, this would imply gross under-utilisation of roads during off-peak hours. For example, if the Area Licensing Scheme (ALS) had not been introduced in the 1970s, the car population would have been kept even lower than its present level to avoid heavy morning congestion. This would have meant that the roads would be under-utilised during other hours. In this regard, petrol pricing is not an effective usage measure as it does not discriminate between peak and off-peak traffic hours for road usage.

Effective usage measures such as the ALS make it more costly to operate a vehicle during heavy traffic periods in congestion prone areas such as the Central Business District (CBD). They therefore restrain the use of vehicles during these hours and enable the road system to sustain a higher rate of car ownership by the population. As a result, traffic will be more evenly spread throughout the day, and some cars are not used for going to work but kept for evenings and weekends for leisure and social activities.

The judicious application of usage measures can therefore raise the level of car ownership in Singapore and help satisfy the aspirations of a proportion of the population who wish to own cars for reasons of prestige or convenience for social activities and are willing to leave them at home and use the public transportation system for commuting to work.

### 15.2 *Preferential Additional Registration Fee (PARF)*

The PARF scheme was introduced in 1975 with the basic objective of keeping young the average age of Singapore cars. This would reduce both the breakdown rate of cars on highways and the pollution level from exhaust fumes.

PARF however also created a guaranteed minimum disposal value for a car at the end of 10 years. In some cases the natural market value of cars may be above this minimum disposal value. In the majority of cases however it exceeds this value. In these cases, the average capital cost of owning a car over ten years is reduced. This does not amount to creating an "investment value" for cars as has sometimes been alleged. It merely slows down their depreciation rates.

Between 1985 to 1988 there were sharp appreciations of the Japanese Yen and Deutsche Mark against the Singapore Dollar (see Table 1 [page 13]). This contributed far more than the PARF to creating the tendency for car purchases to be viewed as economic investments. For example, a 1.6 litre Toyota Corolla cost S\$38,000 in 1984 and S\$61,000 in 1989. During the same period the Yen appreciated by 52.4%. As a result, the 1984 Corolla had a used car value of S\$38,000, making ownership apparently "costless" for five years.

#### 15.2.1 *Effects of Abolishing PARF*

- (a) The abolition of the PARF scheme may or may not lead to an increase in the car population. It would lower the market price of used cars thereby making them more affordable and raising the population of older cars on Singapore roads. It would also increase the supply of used cars as cars that previously would have been disposed of as scrap or by export may continue now to be operated on Singapore roads. On the other hand it would sharpen the depreciation rate on new cars, thereby increasing the average capital cost of car ownership and discouraging new car purchases.

However, the demand for cars is less price-elastic for new cars than it is for used cars, i.e. the purchase decisions of high income earners who buy new cars are less likely to be affected by price changes than lower income earners who buy used cars. Coupled with the increased supply of used cars, this would probably more than make up for the drop in new car purchases. The abolition of PARF would therefore be likely to increase the car population and tend to undermine car pricing as a policy instrument for controlling ownership.

- (b) The abolition of PARF would also have equity implications. Current owners of cars who purchased their cars on the basis of their having residual PARF values at the end of ten years would in many cases see the value of their assets (hence their personal net worths) substantially reduced. In some instances this would also create problems for financial institutions which have financed the purchase of these vehicles based on a less rapid depreciation schedule.

The Select Committee therefore sees merit in retaining PARF although not necessarily completely in its current form. Refinements could be introduced. For example, new cars purchased in the future could have a declining PARF value starting at, say, 5 years and reducing to something close to their natural market value at the end of 10 years. This would encourage earlier disposals of cars and possibly spawn a new industry in the refurbishing of used cars in good condition.

### 15.3 *Quota System*

- 15.3.1 Inadequacy of Pricing System: Car ownership has hitherto been controlled indirectly through a pricing system, currently comprising an import duty (45%) and an additional registration fee (175%). This is not entirely satisfactory as in a buoyant



economy incomes rise rapidly and the car population expands at an exceptionally high rate. This has happened in 1988 and 1989. During leaner times the car population has actually declined (see Table 2 [page 13]).

As pointed out by Mr Anthony Chin and Dr Phang Sock Yong (Paper 55, pages B 105-117), the fundamental problem of the pricing system is that demand for cars is much more income elastic than price elastic. One implication of this is that during periods of rapidly rising incomes the pricing system is ineffective in controlling the car population.

- 15.3.2 *Setting a Quota:* A quota system ensures that a target car population rate of increase is maintained by allowing only a set rate of car population increase for each year. The rate of increase must be commensurate with the growth of road infrastructure in each year and with usage restraint measures that are in place. For example, during the period that the ERP scheme is being introduced, a higher rate of car population increase may be allowed for if ERP proves to be successful. One way to operate the quota system is for the government to permit the purchase of new cars by one of two means:
- (1) by scrapping a used car which can be either the purchaser's own car or one that he buys from the used car market;
  - (2) by bidding for a licence to buy a new car through tenders conducted at regular (monthly) intervals. Bidders are unlikely to offer ridiculous prices as the price of scrap cars would set a benchmark for the public to make comparisons.

- 15.3.3 *Prices under a Quota System:* The Select Committee notes the concern of the public that a quota system would necessarily lead to
- (1) higher car prices and unavailability of cars for new owners;
  - (2) widespread speculation in car purchases with accompanying sharp car price increases.

These fears are not well founded. A quota system does not necessarily lead to higher or lower car prices compared to a pricing system for controlling car ownership. A quota system enables the market price to find its own level after a target car population is set. A pricing system, on the other hand, raises prices to attempt to hold ownership down to the target level.

At the time of the introduction of a quota system, the ARF rate should be lowered.\* This will enable car prices to fall below those of the pre-quota period in the event of slack market demand, during an economic slowdown in Singapore. The quota system would not therefore necessarily lead to higher or lower car prices. Market demand would determine car prices.

---

\* The PARF rate may need to be simultaneously adjusted to minimize windfall gains for used car owners.

One drawback of a quota system is that in periods of excess demand, prices could be bid to a temporarily high level. This could cause some dissatisfaction among would-be buyers who are impatient to make their purchases immediately rather than wait for a period of lower demand.

Car buyers would have to acquire some savvy in timing their purchases, just as buyers of private houses and apartments or HDB resale flats need to choose the right time to enter the property market. In this respect it should be noted that there is an implicit quota in the residential market: at any time only so many units are available, and only a planned rate of increase in supply is possible.

The Committee feels that when the public understands and gets used to the idea of a quota system, it would become acceptable as a way of life.

15.3.4 *Who Sets the Quota?* The government will need to decide who should set the quota for each year. The government could appoint one of the following:

- (1) the Ministry of Communications and Information;
- (2) a committee comprising representatives from several ministries;
- (3) a committee comprising representatives from government, the business sector and consumer groups.

The guiding principle in setting the quota is that it should provide a balance between consumer demand and the capability of the road infrastructure to cope with increased traffic. It should also give consideration to granting concessions or exemption to goods vehicles as these have a key role in the conduct of economic activity.

#### 15.4 *Area Licensing Scheme (ALS)*

The evening ALS has been a controversial issue. From feedback received by Committee members, it would appear that the majority of commuters who have expressed views on the subject feel that it hinders more than it helps the general traffic flow situation in the evening hours. This is because whatever time is saved in travelling from one's office to the fringe of the CBD may be more than lost in the additional time spent on the ring roads and expressways, which have become more congested in many locations. The result could be an increased total transit time from office to home.

The Select Committee is aware that those adversely affected by the scheme are usually more vocal than those helped by it. There is therefore a need for a more thorough study to determine how the scheme can be improved, possibly by changing the hours of operation. In this regard recent preliminary data provided by the Public Works Department (PWD) seem to indicate that the traffic volume entering the Central Business District (CBD) peaks at between 6.00-6.30 p.m. This would seem to suggest that congestion would not be substantially worsened by moving forward the closing time of the evening ALS by about half an hour (see Table 3 [page 14]).

Two points that have been repeatedly raised by the public with regard to the ALS which may need further clarification:

- (a) the lowering of CBD entry charges from \$5 to \$3 for private vehicles and from \$10 to \$6 for company cars;
- (b) the charging for entry into the CBD in the evening rather than for leaving the CBD.

The Select Committee understands that the rationale for (a) is to mitigate the under-utilisation of roads resulting from extending the ALS to commercial vehicles and for (b) is that out-bound ALS would involve too many new gantry points to monitor and would be operationally more cumbersome.

### 15.5 *Feeder Services*

The current under-utilisation of the MRT system is in part attributable to the inadequacy of feeder services to and from MRT stations. The cooperative arrangement between the two major bus companies and the SMRT through the "Transit Link" project is a step in the right direction. The Select Committee would like to urge the authorities concerned to proceed with the "Transit Link" project expeditiously as this would have a major impact on diverting traffic volume from buses and cars to the more efficient MRT.

The Committee notes that the apportionment of revenues between the SMRT and bus companies is a complex issue and the Committee is unclear as to whether this impedes the speedy implementation of feeder services. The recent proposed investment by the Singapore Bus Services in the SMRT makes for closer cooperation between these major public transportation companies. Such mutual investments by the three major public transportation companies could enhance cooperation further.

- 15.5.1 *Private Estates:* Feeder services to private estates where a large proportion of private cars are located: would help reduce car traffic volume originating from these estates as the MRT is fast and comfortable, and is acceptable as a mode of transport even to senior executives.

However, because of the lower concentration of residential units in private estates compared to HDB estates, the logistics and economies of feeder services are more difficult. The provision of effective feeder services is a challenge to not only the SMRT and bus companies but also to private operators. While the social benefit of feeder services in reducing road congestion is clear, their cost effectiveness is uncertain. The benefit of a feeder service should be measured not just by the value placed on it by the commuter, but also by the increased ridership enjoyed by the SMRT and the social benefit of reducing congestion on roads.

A flexible and innovative approach is needed. A bus feeder service that is effective in Clementi Park, for example, may not be so in Henry Park. The Committee notes that NTUC Comfort will be willing to try a scheme whereby specially designated taxis would provide feeder services by shuttling between MRT stations and housing estates and picking up passengers on the way.

Two proposals concerning alternatives to feeder services merit some consideration:

- 15.5.2 *Carparks at MRT stations:* It is unlikely that this would be cost effective at most MRT stations because of the high cost of land and the limited number of cars the carparks could accommodate. However the provision of carparks in outlying and suburban areas could be feasible if they were combined with HDB carparks in such manner that commuters from neighbouring estates use them by day and residents in the evenings and weekends.
- 15.5.3 *Bicycles:* Riding a bicycle in the early morning and late afternoon hours could be as comfortable as walking. It would extend the catchment of the MRT substantially beyond the 0.45 km radius that is the norm for commuters who walk to the MRT stations. For bicycles to be a viable alternative to feeder systems from homes to MRT stations, it would be necessary to provide (i) bicycle tracks that do not interfere with vehicular traffic and are safe to ride on and (ii) bicycle sheds at MRT stations. It is unlikely that in existing heavily built-up commercial and residential areas bicycle tracks could be built at reasonable cost. However the Committee does not rule out special situations where it could be worthwhile. Such a plan is more likely to succeed in new estates and new MRT stations, for which bicycle tracks can be planned as part of the road transportation system.

## 15.6 *Road Infrastructure*

A nation with an expanding economy and a growing population must continually expand and upgrade its road infrastructure to cope with higher volumes of traffic.

More intensive land utilisation can be achieved by the construction of more double-deck highways and underpasses for vehicular traffic as well as by selective road widening.

The Committee notes that land transportation has become a sufficiently pressing and priority issue, particularly for the young, that the public may be willing to accept the economic trade-offs of building roads at the expense of land availability for housing, commerce and recreation. The mood and aspirations of the population in this regard need to be viewed in the national context rather than from the individual standpoint of the government agencies responsible for road transportation.

In this regard the Committee notes that there is currently no centralised government agency with overall supervisory power and responsibility for road transportation in Singapore. While the Ministry of Communications and Information lays down policies for car ownership and sets standards for road congestion, it does not have jurisdiction over road network planning.

The proposed master plan recently put forward by the Ministry of National Development for decentralising the economy into self-contained regional centres would help alleviate the road transportation problem.

## **Recommendations**

16. A summary of the Select Committee's recommendations is as follows:

16.1 *Ownership and Usage Restraint Measures*

16.1.1 *Ownership Restraint:* The Select Committee recognises the continued need for rigorous measures to control car ownership as the total vehicle population is the single most important determinant of congestion levels on Singapore roads.

16.1.2 *Usage Measures:* A higher car population can be sustained with judicious application of usage measures such as Area Licensing Schemes and higher parking charges in the city and other areas that are prone to congestion. However, usage restraints must be coupled with the provision of viable alternatives in public transportation: more efficient feeder services to and from MRT stations, and more comfortable buses. The underlying principle is not so much to make it economically painful to drive to work as to make it a pleasure to take a bus or MRT instead.

16.1.3 *Quota System:* While the pricing system has been useful in the past for controlling the car population, its efficacy has diminished with rising incomes in Singapore and with heightened middle class aspirations for car ownership. The rate of increase in the car population can be effectively controlled by means of a quota system. While this is more difficult to understand and implement than the current pricing system, it will enable the rate of increase in the vehicle population to be commensurate with the road infrastructure and road usage pattern at any time.

16.2 *PARF*

The PARF scheme should be retained for all existing vehicles. For future newly-registered vehicles, PARF could vary with the age at which the car is disposed of (i.e. taken off Singapore roads by scrapping or by exporting overseas). Cars disposed of early would enjoy a more favourable PARF value.

### 16.3 *Area Licensing Scheme*

The evening ALS hours should be changed to 4.30-6.30 p.m. as a first step. Bringing forward the closing time by half an hour will make it more convenient for school children going home to the restricted zone and mitigate the negative impact of the ALS on business within this zone. At the same time, more thorough studies should be conducted to ascertain the efficacy and desirability of the evening ALS and, if necessary, the hours should be adjusted accordingly.

Although the evening ALS would be more logically applicable to outbound rather than inbound vehicles, the Select Committee recognises the logistical problems in outbound ALS and recommends no change in this regard.

### 16.4 *Parking*

16.4.1 **City Parking:** Parking charges in city and congested areas should reflect better the social cost of congestion caused by the vehicles entering these areas. There could be a sharp relaxation of requirements for buildings to provide parking lots. This would redress the imbalance resulting from past policies.

16.4.2 **Home Parking:** The provision of car parks in homes is a different matter. The pricing of car parks in HDB estates does not amount to a car control measure. As a measure to control car ownership, it has only a minor impact. Hence the pricing of car parks in HDB estates should be determined not by traffic control objectives but by real estate considerations such as land cost and the provision of adequate amenities to residents.

### 16.5 *Public Transportation*

16.5.1 **Buses:** The present policy of upgrading the comfort and speed of buses should be pursued vigorously. This could include airconditioning buses and providing more spacious seats and less bumpy rides. This should however be done without unduly raising bus fares and making it unaffordable for lower income workers. Buses should be efficient and comfortable, and it should be acceptable for people of all income levels to travel by bus to work.

16.5.2 **MRT:** The MRT system should be expanded to cover all major public housing estates; where such estates are not presently covered, provision of comfortable and regular feeder services should be a priority. In pricing these services, it is recommended that the cost-benefit considerations include both the commercial profitability and the social benefit of diverting more commuters to the MRT. There may be a case for granting capital subsidies to feeder services that run at a commercial loss if the loss is outweighed by the commercial benefit reaped by the MRT in increased ridership and, more importantly, the social benefit for the country in reduced road congestion.

- 16.5.3 *Private Estates:* The same principle should apply to private housing estates where private operators as well as the bus companies could be encouraged to provide feeder services. The approach should be flexible and innovative. The kind of vehicles used and the operators involved may have to vary from one estate to another. There may need to be a relaxation of the rules that restrict private operators from participating in feeder services.
  - 16.5.4 *Bicycles:* The use of bicycles for travelling to and from MRT stations may be considered for new estates or stations, and for special situations that make it feasible. Bicycle sheds at MRT stations and bicycle lanes would have to be provided if the concept is feasible.
  - 16.5.5 *Competition:* The SMRT and the two major bus companies compete for business only to a limited extent. More is to be gained by having them work together for common commercial and social objectives. Cooperation among these companies can be enhanced by bus companies taking substantial stakes in the SMRT and vice versa.
- 16.6 *Infrastructure*
- 16.6.1 The national infrastructure for road transportation should continue to be upgraded and expanded. The maximum number of vehicles that can be accommodated on our roads is not a static figure. It would increase with better road planning, the building of double-deck highways and underpasses, wider roads and more roads. Efforts should be made, and appropriate resources allocated, to accommodate the rising aspirations of the population to own private cars, but always with due regard to a balanced allocation of national land and other resources.
  - 16.6.2 The Select Committee notes that the rate of increase of the car population in the last two years has been excessive and cannot be sustained without causing serious congestion throughout the island. Neither will it be possible to sustain the rate of expansion in the road infrastructure as in the last ten years, without giving up valuable land and other resources that are needed for other purposes.
  - 16.6.3 The Select Committee endorses the creation of self-contained regional centres as a means of alleviating the traffic pressure on highways.

## **Acknowledgement**

17. The Select Committee wishes to place on record its appreciation for the interest and concern shown by the public in their submissions on Singapore's land transportation issues. The submissions and the oral evidence presented at the Committee's hearings made valuable contributions to the Committee's understanding of the complex problems and issues involved. Many of the ideas contained therein stimulated the Committee's deliberations and guided its recommendations.

**Table 1**

	Toyota Corolla 1.6	Exchange Rate S\$ Per 100 Yen	Yen Price
1984	\$38,000	0.899	4.2 Million
1989	\$61,000*	1.370	4.5 Million

Source: Anthony Chin and Phang Sock Yong  
(Paper No. 55, pages B105-117)

\* Car price figures are from The Highway, Automobile Association of Singapore, June 1984 and Sept/Oct 1989; Yearbook of Statistics, Singapore 1988.

**Table 2**

**MOTORCAR POPULATION AND RATE OF GROWTH  
(EXCLUDES EXEMPTED VEHICLES)  
1977-1988**

Year	Motorcar Population	Rate of Growth (Decrease)
1977*	134,732	(0.4%)
1978	137,104	1.8%
1979	143,480	4.7%
1980	153,291	6.8%
1981	163,355	6.6%
1982	182,236	11.6%
1983*	204,370	12.1%
1984	219,365	7.3%
1985	223,271	1.8%
1986	221,945	(0.6%)
1987	223,456	0.7%
1988	238,984	6.9%
1989 (Sept)	254,329	9.5% (compared to Sept 1988)

Source: ROV Annual Report 1988

\* ARF increased in this year.



**Table 3****OUTBOUND**

	<i>Before ALS changes</i>	<i>After ALS changes</i>
Time	May 1989	August 1989
3.30-4.00	11775	11543
4.00-4.30	11937	10796
4.30-5.00	12364	9130
5.00-5.30	14281	9152
5.30-6.00	15513	9132
6.00-6.30	15382	9381
6.30-7.00	13809	8318
7.00-7.30	12387	9147
7.30-8.00	10214	8921
4.30-7.00	71349	45113
		(-37%)

**INBOUND**

Time	May 1989	August 1989
3.30-4.00	12193	12537
4.00-4.30	12859	12280
4.30-5.00	12471	6917
5.00-5.30	12744	6845
5.30-6.00	13266	7122
6.00-6.30	13019	6811
6.30-7.00	11694	6168
7.00-7.30	10614	11368
7.30-8.00	10264	10060
4.30-7.00	63194	33863
		(-46%)

---

Source: Public Works Department.

## **SUMMARY OF VIEWS EXPRESSED BY REPRESENTORS IN THE WRITTEN SUBMISSIONS AND ORAL EVIDENCE**

### **(a) *Car Ownership Restraint Measures***

This includes car ownership control measures such as the PARF scheme, ARF, import duty, a quota system, and pre-qualification criteria for car ownership.

There were 26 submissions on controlling road congestion through car ownership. A majority of the views (16) were on the PARF system. Of these 2 to 3 advocated that PARF be scrapped as it had allegedly outrun its usefulness and given cars an investment value. Most views were for the retention of the scheme albeit with modifications to the scheme such as allowing PARF value for cars over 10 years but subject to payment of higher road taxes and checks for roadworthiness.

There were 7 suggestions on using taxable income as a criterion for eligibility to own cars.

Of 9 views on a quota system for car ownership, most felt that this would hamper the aspirations of Singaporeans to own a car and urged for more extensive usage restraint measures instead as they considered these to be more equitable.

Suggestions made:

- Have one car per family
- Have higher taxes on cars
- Make car maintenance costs higher than what most people can afford
- Make financing of cars more expensive and restricted as ownership of cars has been made easy by flexible and readily available financing
- De-register cars which have reached 7 years old

### **(b) *Car Usage Restraint Measures***

Control the usage of cars particularly during peak hours, in the CBD and on congested roads through the ALS and higher car parking charges in the CBD.

While 27 views received supported car usage restraint measures, it was repeatedly stressed by many representors that car usage restraint measures can only be effective if there was a convenient and comfortable alternative public transportation system to induce the car owner not to use his car during peak hours. There was strong support for the proposed Electronic Road Pricing System.

Of 23 views on carparking policy, most were for heavier carpark charges in the CBD during office hours and more hefty penalties for parking offences.

Other suggestions included:

- Car park charges should be lowered or eliminated in the evenings to encourage more activity in the city after office hours
- Restrict the use of cars to odd/even days
- Fine tune ALS so as not to adversely affect businesses in the CBD
- Limit spaces in the city and raise car parking charges
- Have a coordinated system of recovery for breakdowns or accidents on highways which may cause traffic jams
- Have a route-guidance system to keep motorists informed of congested areas to avoid.

(c) *Alternative Modes of Transport*

6 proposals were received for other modes of transport to substitute for cars.

Suggestions made:

- Sea transport
- Light Rail Transit to cover short distances between high activity centres
- Bicycles and bicycle lanes/sheds

(d) *Improvements to the Public Transportation System*

29 views advocated a better public transportation system as a viable alternative for commuters. There were 22 views on the bus system and 21 views on the MRT system.

Suggestions made include:

- Decision-makers should have first-hand experience at travelling by public transport before formulating policies
- Extend MRT to Woodlands
- Aircondition all buses
- Promote private companies to run feeder services to private estates
- Take the needs of the handicapped into consideration when planning the public transportation system
- Improve access to MRT stations (MRT stations are not "user-friendly")

(e) *Taxis*

There were 12 submissions on taxis including one from the NTUC COMFORT and one from the Singapore Taxi-Drivers' Association. Most were of the view that taxis were part of the public transportation system and that there was a need to regulate taxi fares and fleet size.

(f) *Commercial Vehicles*

13 views were presented on commercial vehicles. Some felt that since commercial vehicles contributed towards the economy's growth they should be given concessions, e.g. exemption from ALS. Others suggested that measures be instituted to disallow the use of commercial vehicles for non-business purposes.

(g) *Improvements to Road Infrastructure*

There were 6 views advocating improvements to and expansion of the road infrastructure to accommodate more cars. This would help to satisfy, at least partially, the aspirations of Singaporeans to own cars.

(h) *Miscellaneous Views and Suggestions*

These included the following:

- Need to look into the needs of the handicapped
- Stagger working hours to ease congestion
- Education of the public and motorists to drive in a way that minimizes congestion.
- Effect of too many cars on the environment and their contribution to pollution

**LIST OF INDIVIDUALS AND ORGANISATIONS  
FROM WHOM WRITTEN SUBMISSIONS WERE RECEIVED  
BY THE SELECT COMMITTEE**

<i>Paper No.</i>	<i>Name of Representor</i>
1	Mr S. Santha Kumaran.
2	Dr Warren Lee.
3	Mdm Loh Kwok Yeng.
4	Mr Lian On Tak.
5	Mr Steve S.K. Yeo.
6	Mr Ivan Lim Hong Ping.
7	Encik Razali Dollah.
8	Mr Ngan Yeow Chwee.
9	Mr Siew Yee Cheong.
10	Mr Lim Kee Chong.
11	Mr Shriniwas Rai.
12	Mr Ole H. Dyrhaug.
13	Mr Ng Khee How.
14	Mr Paul S.Y. Law.
15	Mr Chan Kok Mun.
16	Mr Ng Lee Seng.
17	Mr Koo Kow Chye.
18	Mr Bin Kee Man.
19	Mr Fun Chee Chong.
20	The Singapore Chinese Chamber of Commerce & Industry.
21	Mr Phang Kok Chiew.
22	Mr Paul Dixon.
23	Mr Au Wai Pang.
24	The Society for Aid to the Paralysed.
25	NTUC Comfort.
26	The Chartered Institute of Transport.

*Paper*

*No.*

*Name of Representor*

- 27 The School of Building & Estate Management, Faculty of Architecture & Building, National University of Singapore.
- 28 The Singapore Council of Social Services.
- 29 Dr Foo Ah Fong, Mr Abdul Hussain, Mr Robert Powell & Mr Jack Tan, School of Architecture, Faculty of Architecture & Building, National University of Singapore.
- 30 Dr Henry Fan, Mr Piotr Olszewski, Mr David J. Turner & Mr Tan Yan Weng, School of Civil and Structural Engineering, Nanyang Technological Institute.
- 31 The Singapore Democratic Party.
- 32 The Singapore Centre of the Institute of the Motor Industry.
- 33 Mr Chia Chiap Meng.
- 34 The Singapore Taxi-Drivers' Association.
- 35 Mr Hsiung Keng-Liang.
- 36 Mr Lau Cher Hong.
- 37 The Singapore Secondhand Motor Vehicles Dealers Association.
- 38 The Motor Traders Association.
- 39 Mr Liew On.
- 40 Prof Tsoi Wing Foo.
- 41 The Vehicle Rental Association.
- 42 Mr Eugene Lim.
- 43 Mr Gary Loh.
- 44 Mr S.S. Lim.
- 45 The Singapore Lorry Owners Association.
- 46 Prof Y.H. Tan.
- 47 Mr Goh Thian Kwee.
- 48 Mr Then Hon Chye.
- 49 Mr Patrick Lim T.S.
- 50 Mr Simon Lau Pak Wai.
- 51 The Handicaps Welfare Association.
- 52 Mr Joseph Anthonysamy.
- 53 Mr Chong Poo Aik.

*Paper*

*No.*

*Name of Representor*

- 54 Miss Ratneshwari Devi.
- 55 Dr (Mrs) Phang Sock Yong & Mr Anthony Chin.
- 56 Mr Toh Choong Fook.
- 57 Mr Stanislaus M. Lee.
- 58 Mr Alan T. Crandon.
- 59 Mr Han Fook Kwang.
- 60 Mr Dennis Singham, Mr Lim Kian Seng & others.
- 61 Mr Lai Chee Fan.
- 62 Mr Chhze Kyiao Yiang.
- 63 The Automobile Association of Singapore.
- 64 Mr Christopher Herbert.
- (Received after 7th October, 1989)
- 65 Mr J. Appleyard.
- 66 Mr Aidi A. Rahim.
- 67 Mr Goh Choon Poh.
- 68 SAFRA Team A.
- 69 SAFRA Team B.
- 70 Mr Tan Guong Ching, Permanent Secretary (Communications), Ministry  
of Communications & Information.
- 71 Dr Tan Swan Beng, Director-General of Public Works

## Appendix II

### WRITTEN SUBMISSIONS OF REPRESENTORS FROM WHOM ORAL EVIDENCE WAS HEARD BY THE SELECT COMMITTEE

<i>Representor</i>	<i>Paper No.</i>	<i>Pages</i>
Mr Shriniwas Rai ...	11	B 3-7
Mr Ole H. Dyrhaug	12	B 8-9
Mr Paul S.Y. Law ...	14	B 10-11
The Singapore Chinese Chamber of Commerce & Industry	20	B 12-15
Mr Phang Kok Chiew	21	B 16-18
Mr Paul Dixon	22	B 19-21
NTUC Comfort	25	B 22-23
The Chartered Institute of Transport ...	26	B 24-35
The School of Building & Estate Management, Faculty of Architecture & Building, National University of Singapore ...	27	B 36-40
Mr Abdul Hussain ...	29	B 41-45
Mr Robert Powell ...	29	B 46
Mr Jack Tan ...	29	B 47-53
Dr Henry Fan, Mr Piotr Olszewski, Mr David J. Turner & Mr Tan Yan Weng	30	B 54-60
The Singapore Democratic Party ...	31	B 61-79
The Singapore Taxi-Drivers' Association	34	B 80-82
The Singapore Secondhand Motor Vehicles Dealers Association ...	37	B 83-94
The Vehicle Rental Association	41	B 95-99
The Singapore Lorry Owners Association	45	B 100-102
Mr Simon Lau Pak Wai ...	50	B 103-104
Dr (Mrs) Phang Sock Yong & Mr Anthony Chin	55	B 105-117
Mr Toh Choong Fook	56	B 118-119
Mr Han Fook Kwang	59	B 120-124
Mr Dennis Singham...	60	B 125-129



<i>Representor</i>	<i>Paper No.</i>	<i>Pages</i>
The Automobile Association of Singapore	63	B 130-133
Mr Christopher Herbert	64	B 134-139
SAFRA Team A	68	B 140-146
Mr Tan Guong Ching, Permanent Secretary (Communications), Ministry of Communications & Information      ...      ...	70	B 147-154
Dr Tan Swan Beng, Director-General of Public Works	71	B 155-160

## Paper 11

From: Mr Shriniwas Rai,  
Hin Rai & Tan,  
Advocates & Solicitors,  
2, Finlayson Green #07-05,  
Asia Insurance Building,  
Singapore 0104.

Dated: 15th September 1989.

### MEMORANDUM ON LAND TRANSPORT POLICY

My memorandum to the Select Committee on Land Transport is enclosed (below).

I am a partner of Messrs Hin Rai & Tan, Advocates and Solicitors. I do not represent any individual or institution. I am writing this as a citizen who uses public transport.

I am prepared to appear before the Select Committee.

SHRINIWAS RAI.

---

### MEMORANDUM ON LAND TRANSPORT POLICY

1. Please permit me to make this preliminary observation before I deal with the problem. I do this on purpose as the press has not alluded to this momentous change. The appointment of this Select Committee by Parliament marks a milestone in the parliamentary system in our Republic. In the past Select Committees were appointed when changes in constitution or important legislative measures were introduced. The appointment of the Select Committee is indicative of the importance Parliament places on public transport. The present Select Committee has set a precedent which speaks volumes for Parliamentary democracy. Through Select Committees the public is given an opportunity to participate in the parliamentary process.

#### *Introduction*

2. Singapore has limited land supply. Every square inch is dear to us in every sense of the word. Any further allocation of land to build roads will affect our economic development. The quality of our life will also suffer. The Government's call to make use of the public transport and curb the car growth is laudable. It deserves the support of the entire nation. Unless we act now, our roads will be choked with cars, affecting not only our travelling time but also trade and tourism.

3. A generation has grown not knowing pirate taxis and mosquito buses. They have not experienced long queues at bus stops and frequent break downs. Our land transport system was in complete chaos in the 1960's. There were some 11 bus companies competing with each other. The collapse of STC in 1971 further compounded the matter. Faced with pirate taxi menace and chaotic bus service, the Government in 1970 introduced a white paper on the Reorganization of Motor Transport Service of Singapore. The matter was fully debated in the Parliament. The white paper had this to say on land transport:-

"Good and efficient communications form the life-blood of any modern economy. As Singapore takes justifiable pride in being the fourth busiest port of the world, we must not allow its progress to be retarded by a lagging Public Transport system."

The Government took bold and far sighted policy. Government seconded officers to reorganize the SBS. SBS has achieved what just twenty years ago was daunting task.

4. The Economic Committee in its landmark report published in 1986 reiterated the importance of land transport. Every word on land transport deserves quotation. It says:-

"Land transport is a vital part of our infrastructure. Our land transport system should keep pace with the development of the economy. The objective should not be growth per se, but rather cheaper ways of moving people and goods. Transport costs should be kept to the minimum possible so as to maintain our business competitiveness. As travel demands increase in the future faster than the expansion of our road capacity, measures will be necessary to prevent road congestion. However, due consideration should be given to the effects of such measures on our cost competitiveness."

5. The public debate in the press and the dialogue sessions have been dominated by the car owners. The bus commuters whilst in the majority, unfortunately did not get good hearing. This submission represents the view of a citizen who has given up his car and uses public transport. It is not the physician prescription but the patient's pain. The plight of passengers caught in traffic jam on a hot humid day is not difficult to portray. It is hoped the Select Committee will take a long term view of the problem and produce a blue print that Singaporeans can proudly say that we are not only good in the air but we have our feet firmly on land.

6. Success brings its own problems. It is infectious. The Government through its judicious use of the Land Acquisition Act has given the public subsidised housing. The money that in other countries is spent on accommodation has resulted in saving for those living in HDB flats. The saving has resulted in growth of cars in Singapore. A walk in the early hours of the morning in HDB estates shows the affluence of our middle class. Mercedes. BMWs and Volvos are occupying the parking lots.

7. The correlation between income and mode of transport can be observed in the Census Report 1980. The Report on Income and Transport contained in Release No. 7 has this to say on Mode of Transport:-

"The proportion of working persons travelling to work by motor car, a relatively costly mode of transport, was low at 4.1 per cent for workers with

income below \$500.00. It rose steadily for each higher level of income and was well over 50 per cent for workers with income exceeding \$1,500, reaching as high as three-quarters for those in income group \$2,000-\$2,999 and more than four-fifths for those earning \$3,000 or more. The proportion of workers travelling to work by taxi, though small, also rose with income. On the other hand, the proportion of workers travelling by bus displayed a very strong negative correlation with income, that is, it declined with each higher level of income. Bus, principally public bus, was the most popular mode for workers in the lower income brackets where it almost reached 60 per cent and 50 per cent respectively for those earning below \$500 and those between \$500-\$999. The proportion using bus was much lower though not insignificant for workers in the higher income groups. The proportion of workers using modes other than motor car and bus such as motor cycles and scooters, other motorised vehicles (lorries, trucks, pick-ups, vans, etc.) and bicycles did not show any clear-cut relationship with income but generally, these modes were more popular with workers in the lower income groups."

With rising affluence more will be attracted to cars. If every household is going to have a car we are going to have ½ million cars on the road in not too distant a time. This projection is fortified, as most Singaporeans consider the car as a qualifying point for graduation into a middle class. How do we win the minds and hearts of car owners?

8. Unless the public is offered an efficient and comfortable public transport, the car owners cannot be persuaded to give up their cars. The proposals, it is hoped, would bring down the car population. Even those with cars will be encouraged to take public transport. It is hoped that the proposal will free the roads from congestion.

### *Proposal*

9. The MRT and bus operation must be integrated. They must not compete but complement. The Government should study the possibilities of merging MRT and all bus companies, with view of floating the company. The MRT must become the backbone of public transport. Buses must play a complementary role. Otherwise buses will be choking the road. This would be unmitigated disaster for all of us.

10. The Public Transport Council should be enlarged to include the Government, chambers of commerce, NTUC and representatives from the public. Commuters using public transport should be adequately represented. This body could assist the Ministry of Communications and Information.

11. A study of the entire public transport system including taxis has to be made. The growth of taxis must also be regulated.

12. The entire bus fleet must be air-conditioned. Having enjoyed cool MRT rides the commuters expect the same from the buses.

13. The present feeder service is inadequate. What is required is a feeder fleet which is made up of smaller buses linking the MRT stations to the private and

public housing estates, bus interchanges, schools and factories. The feeder service must eventually overtake the trunk service, with the opening of new MRT lines.

14. The car population must be drastically cut. If the present trend continue in less than five (5) years the car population is likely to reach 300,000, choking our road and polluting the environment. The car population will not only affect our economy but also our environment. Within the next five (5) years the present car population of 250,000 must be drastically reduced to 150,000. To achieve this, the Government must curtail the import of car. Increase road and petrol tax. Increase parking fee.

15. Allow only those who have parking lots to own cars. To this end HDB should build multi storey car park and sell the lot on cash basis. I believe each lot will cost about \$25,000.00.

16. One method to control the car growth is to allow for auction system. The auction will cover new as well as existing cars. My emphasis is on existing car, otherwise ownership of car will be like membership of country clubs.

17. How do we get the car owners to switch to MRT and Bus? My proposal, I must confess is radical. The public must make mandatory monthly contribution to finance MRT and bus operation. The contributors will include employees, self-employed and students. The contribution would range from \$15.00 to \$200.00 per month.

- (i) Primary school students pay \$15.00. Secondary students pay \$25.00 and tertiary students pay \$50.00. I think we should not charge those who are not economically active. If we have to charge it must be nominal.
- (ii) For the economically active adults, those earning less than \$1,000.00 a month pay \$50.00 per month. The following graduated contribution could be considered:-

Those with income from

\$1,500.00 to \$2,000.00	- \$ 60.00
\$2,000.00 to \$2,500.00	- \$ 70.00
\$3,000.00 to \$3,500.00	- \$ 80.00
\$4,000.00 to \$4,500.00	- \$120.00
\$5,000.00 to \$5,500.00	- \$130.00
\$6,000.00 to \$6,500.00	- \$140.00
\$7,000.00 to \$7,500.00	- \$150.00
\$8,000.00 to \$8,500.00	- \$170.00
\$9,000.00 and above	- \$200.00.

- (iii) Employers must contribute ½% of the salary as transport levy like CPF contribution there must be a ceiling. Employers are likely to save on transport expenses. Office boys and those delivering small items need not use their own transport. The system will also encourage people to be mobile. It will also help in growth of new towns.

18. Based on the study of Inland Revenue Department Annual Report 1987 and 1980 Census Report, the system ensure a monthly collection of \$80 million initially. But gradually it must be increased to \$100 million. The collection would

finance the MRT, bus operation. From this, part of the money must be set aside for capital outlay of the bus and MRT.

19. The public could then enjoy a free ride on the MRT and bus. The system would be ticketless and time saving. Let me illustrate. Each passenger takes about five (5) seconds to pay the fare and collect ticket. Multiply this with 100 passengers, some seven (7) minutes could be saved in one trip, if we do away with tickets.

20. Cycling should be encouraged. Every household should own a sturdy bicycle. It would become handy in time of emergency or energy crisis. We should encourage people to cycle for short distance like marketing, banks and post-offices. It is a healthy habit and a national effort should be undertaken. In some cities, executives cycle to work. This is an area which so far has not received due attention.

21. As most commercial and Government offices are located in CBD, this area is prone to traffic jam. The remedy lies in decentralisation. This decentralisation should be 10-12 km away from the CBD near MRT station to attract potential investment. As land is likely to be cheaper in this area than in CBD, the Government could lead by building Government Offices in this area. The Electronic Road Pricing (ERP) is not going to solve the problem if everybody decides to drive their cars at the same time. There will still be massive traffic jams.

22. Our Planners can plan our buildings and roads which allow pleasant walk under shade. It would be a healthy habit for those travelling for 500 metres to 1 km.

### *Conclusion*

23. Singaporeans consider car and country club membership as a symbol of success. This thinking must be disabused. It is unbelievable that Singaporeans are leaving Singapore because they cannot own a car. No Singaporean in his right mind will forsake his country for a car.

24. The criticism against ticketless MRT and bus, is that it may be abused by the public. After a while the glamour of joy ride would be lost. On the plus side it will boost tourism. This would be the only place in the world where a tourist gets free rides on MRT and bus.

25. Education, health and transport occupies an important place in our society. An efficient transport system saves time and boosts production. This will give our people extra leisure time. It will improve the quality of life. Singaporeans now live in better homes and pleasing surroundings. We can travel in comfort provided we all make some sacrifice. It is worth our effort. It also makes economic sense to have fast and efficient public transport. If every working person saves ½ hour in travel time everyday, the gain for the nation would be billion dollar a year.

Dated this 15th day of September, 1989.

SHRINIWAS RAI

## **Paper 12**

From: Mr Ole H. Dyrhaug,  
Trans-Links Express Pte Ltd,  
15 West Coast Highway,  
Singapore 0511.

Dated: 15th September 1989.

I am enclosing a copy of letter of 17th July 1989, to Newsline as my contribution to the debate on 'Land Transport' hoping that it will be of much use.

OLE H. DYRHAUGE.

---

### **MARATHON DIALOGUE - LAND TRANSPORT**

The undersigned respectfully submits the following proposal, which, it is hoped, could contribute to easing transport congestion in Singapore over the coming years.

In some European countries bicycling has been a major means of transport for years. This is so in Denmark (the country of birth of the undersigned), and the same goes for other countries in Europe, especially small countries like Holland.

Bicycling has the following important advantages:-

- (1) It is economical. The cost of an average good bicycle is only about S\$170.
- (2) It does not pollute the environment.
- (3) It is healthy as it offers excellent exercise.
- (4) It takes up very little space.

Bicycling is today discouraged in Singapore as there are not special lanes. In, for instance Copenhagen, most roads have special lanes for bicycles .

Furthermore special traffic lights are installed showing green, yellow and red with the design of a bicycle. At intersections, the pavement has been painted in a light blue colour as an extension of the bicycle lane.

Most important, special areas have been created near shopping centres, schools, MRT stations and bus stations. Most of these places have racks outside enabling the bicycles to be parked without causing damage and obstruction.

The most common arguments against bicycles in Singapore:

- (a) The climate is too hot for bicycling.

*Comment:* The climate is too hot, if long distances are covered in the middle of the day when the heat is worst. However, think of the weather conditions in Northern Europe where rain, snow and ice are prevailing during three - four months per year and nice weather is only between March and October. To cope with rain most bicycles pack a light plastic cape under the saddle.

- (b) There is no space for special lanes.

*Comment:* As bicycles take-up very little space, the lanes need not be more than 1m wide. The critical areas are at the intersections where the riders often are pressed against the curb creating a danger for themselves and others. This can be overcome by making a special alignment of the pavement.

- (c) Singaporeans are not used to using bicycles and rather consider them a toy for children.

*Comment:* As traffic congestion builds up, moving around in congested areas by bicycles saves a lot of time. In congested cities in Northern Europe, you often see really busy people in the city area jump on their bicycle to save time and keep appointments. Furthermore, it is a common sight to see shipowners, bank managers, and other VIPs bicycle to work which has made bicycling a status symbol. It shows that the person in question values his time and is health conscious getting regular exercise.

*What shall be done?*

The undersigned respectfully puts forward the following suggestions for consideration:

- (1) Singapore to send a technical mission of experts to Copenhagen and other cities where bicycles are used in a big way.
- (2) Singapore should, with the above experiences in mind, plan a new city where priority is given to transport by:
  - (a) Special bicycle lanes
  - (b) Special racks for bicycles on the void decks
  - (c) Special racks at schools, shopping centres, CCs, MRT stations, and bus stations
  - (d) Subsidies for people who wish to buy bicycles
  - (e) A media campaign, whereby all Singaporeans can follow how the experiment develops.

*Conclusion:*

The undersigned is quite convinced that taking this proposal seriously will, if it does not solve future problems, at least alleviate the problem of growing congestion and it will also contribute to better health for Singaporeans.

OLE H. DYRHAUGE

---



## Paper 14

From: Mr Paul S.Y. Law,  
400 Orchard Road #06-15,  
Orchard Towers,  
Singapore 0923.

Dated: 15th September 1989.

### SUGGESTIONS FOR (A) REDUCTION OF TRAFFIC CONGESTION: AND (B) IMPROVING ROAD SAFETY

In response to a recent appeal by the Minister for Communications and Information for ideas on easing traffic congestion, I enclose a paper which embodies some innovative features for brain-storming.

PAUL S. Y. LAW.

---

### TRAFFIC CONGESTION & ROAD SAFETY

Like any important issue, government role in guiding the future of a nation has been increasingly significant; hence without exception, the only effective curb to car population should come from the government and not the people or leaving it to the free play of economic forces. Simple calculation would indicate the optimum accommodatable number of cars for Singapore roads. The figure obtained could be re-adjusted slightly for factors such as traffic density, normal working days and holidays; and the resultant figure could be computed into a fair basis in allocation of vehicle per home - this would also serve as a sort of mandatory family car pool.

Since we are blessed by the surrounding sea, a network of sea transport in the form of ferries, hovercrafts or hydrofoils supported by related shuttle buses serving particularly the coastal areas would definitely alleviate traffic congestion on land. These airconditioned shuttle buses plying between coastal residences and respective ferry points would pick up passengers from their doorsteps to the ferry points - Ponggol, Bedok, Katong, Tanjong Rhu, Raffles Place, Teluk Ayer Basin, Pasir Panjang, Tuas, Jurong, Sembawang. Changi etc. - where hydrofoils, ferries or hovercrafts would mass transport them to their respective areas of work and the fleet of ferry shuttle buses would then deposit them at the doorsteps of their offices. At the end of the day, the reverse process would take place.

Naturally feasibility studies of the above project should give reliable information on pros and cons and the logistics of the whole concept. To supplement the above scheme, a long term planning on the bridging of nearby islands which could turn into flourishing satellite towns which in turn would reduce population and

industrial density on the main island of Singapore; initially ferry services could encourage such relocation.

The MRT and the bus services would be the backbone of interior transportation, while the ferries would serve the coastal residents. It is hoped that the mandatory number of cars computed by the government would be acceptable by the people of Singapore as a national necessity. However, the mandatory figure should be reviewed annually in terms of prevailing technological advancement.

For road safety and to a lesser extent traffic congestion, it is proposed that any driver involved in a fatal accident should have his licence cancelled for good in addition to the normal legal proceedings against him. Hit-and-run driver if caught, would be prosecuted as manslaughter and his driving licence would be cancelled; that is as long as he lives in Singapore, he would be unable to obtain another driving licence.

With the above measures, one may optimistically envisage the eventual lifting of the CBD restriction and the gradual normalisation of the road tax which paradoxically is also shouldered by the non car-owners, since it is a shifting taxation. It is only natural to pass on the overhead expenses to the end users. The present punitive road tax has a decelerating effect not only on the motorcar and related industries but also on other unrelated businesses such as food, clothing, furniture etc.

PAUL S.Y. LAW.

---

## Paper 20

From: The Singapore Chinese Chamber of Commerce & Industry,  
47 Hill Street,  
Singapore 0617.

Dated: 21st September 1989.

### VIEWS ON LAND TRANSPORT POLICY

We refer to Parliament's invitation and submit herewith our written representations on the land transport policy for consideration by the Parliamentary Select Committee on Land Transportation.

We also wish to inform you that our Chamber will not be sending representatives to appear before the Select Committee to give oral evidence supporting or supplementing our written representation.

SU KEE LAY,  
*Executive Director.*

### MEMORANDUM TO THE PARLIAMENTARY SELECT COMMITTEE ON LAND TRANSPORTATION

#### 1. *Introduction*

1.1 The Chamber supports the principles outlined by the government that any measures introduced to solve Singapore's transport problems must be:

- (a) effective in helping to reduce road congestion;
- (b) efficient so as to optimise the use of our roads;
- (c) equitable, and not be unfair to any group of people; and
- (d) easy for the public to understand, and for the government to implement.

#### 2. *Use of Car-pricing or a Quota System to Control the Car Population*

2.1 The Chamber feels that the Preferential Additional Registration Fee (PARF) system, introduced in December 1975, has been effective in curbing the growth of car population over the years. From 1976 to 1988, the total number of cars registered under the Additional Registration Fee (for individual names) category was 93,490 as compared to 147,856 under the PARF category for the same period. Except for the period from 1982 to 1984 and last year, all other yearly figures showed that the majority of new cars were registered under the PARF category (see Annex 1).

2.2 If the PARF system is abolished, owners of cars exceeding ten years old may choose to defer scrapping their cars in view of the high replacement cost of a new car. However, the Chamber feels that the abolition of the PARF system would

lead to a rapid increase in car population because as people become more affluent and enjoy a higher standard of living, they can afford to buy newer cars even though car prices are already too high.

2.3 To effectively control the growth of the car population, the Chamber feels that perhaps, the one-for-one swap plus a guided X per cent annual growth rate may be a better long-term solution. Assuming that the guided X per cent is zero, this would mean a zero growth rate in car population as the buyer of a new car must scrap an old car for exchange.

### 3. *Feeder Services from Private Estates to MRT Stations*

3.1 The Chamber welcomes the idea of providing feeder services from private estates to MRT stations, if there is a demand. Proper feasibility studies should be undertaken to determine the actual demand for feeder services. Also, such feeder services should be extended to other private bus operators apart from bus companies such as the Singapore Bus Service (SBS), Trans-Island Bus Service (TIBS), and Singapore Shuttle Bus Pte Ltd.

### 4. *Evening Area Licensing Scheme (ALS)*

4.1 The present evening ALS restrict vehicles, except scheduled buses operated by SBS, TIBS and CSS from entering the Central Business District (CBD). The Chamber feels that the evening ALS should not impose an unnecessary economic burden on commercial vehicles. However, the Chamber would like to propose that the government fine-tune the implementation of the evening ALS so as not to increase business cost and cause inconvenience to owners of commercial vehicles.

4.2 The Chamber would like to propose that Scheme B buses ferrying school children be exempted from the morning and evening ALS. Otherwise, the parents would have to drive into the CBD to fetch the school children, thus resulting in more cars entering the CBD.

4.3 On the government's plan to decentralise government and commercial activities away from the city area through the creation of "regional commercial centre" (see The Straits Times, 14 September 1989), the Chamber strongly welcomes this move. This would certainly help to reduce road congestion in the city and bring about better use of the road transportation system.

### 5. *Car Parking and Road Pricing Charges to Regulate Road Usage*

5.1 The Chamber hopes to see an earlier implementation of the Electronic Road Pricing (ERP) system so that the government need not depend on unpopular minor measures such as the Area Licensing Scheme, higher parking charges, etc., to deter car owners.

### 6. *Commercial Vehicles*

6.1 The Chamber's view on commercial vehicles is contained under item 4.1.

## *7. Improvement of Bus Service*

7.1 With more air-conditioned buses (SBS has ordered 250 air-conditioned buses - see The Straits Times, 31 July 1989), hopefully, more commuters would switch to public transportation because they can travel in comfort. At present, taxis and MRT trains are already air-conditioned. The Chamber hopes that reasonable fares would be charged to commuters for travelling in air-conditioned buses.

## *8. Total Planning of the Transportation Network*

8.1 Lastly, the Chamber would like to see a total planning of the transportation network so as to co-ordinate the existing transportation system.

*Registration of Motorcars by ARF and PARF (individual Names) 1976 - 1988*

Year	ARF	PARF	Total
1976	694	6,561	7,255
1977	729	13,451	14,180
1978	1,143	15,429	16,572
1979	4,709	16,309	21,018
1980	7,004	21,206	28,210
1981	7,553	13,427	20,980
1982	15,021	13,405	28,426
1983	19,935	8,312	28,247
1984	13,992	6,390	20,382
1985	6,256	6,625	12,881
1986	558	6,964	7,522
1987	2,052	9,374	11,426
1988	13,844	10,403	24,247

---

Source: Registry of Vehicles Annual Report 1988.

---

## Paper 21

From: Mr Phang Kok Chiew,  
51 Duchess Avenue,  
Singapore 1026.

Dated: 20th September 1989.

### VIEWS AND PROPOSALS ON LAND TRANSPORTATION PROBLEMS

This submission on land transportation problems of the country is:

1. to point out flaws in some of the control measures currently adopted by the government to curb car population growth and to ease traffic congestion,
2. to suggest measures which may help to overcome such flaws.

Following qualification is made:

"that all vehicles contribute equally to traffic congestion regardless of make, size, engine capacity and age".

### FLAWS IN CURRENT MEASURES

#### 1. *Preferential Additional Registration Fee Scheme*

(a) Basically the Scheme is sound and effective. What it needs are modifications to plug loopholes which allow motor companies to bypass the scheme and market their vehicles more competitively with full additional registration fee.

This applies mainly to cars of bigger capacity (1600 c.c. and above) as well as less popular makes.

(b) Imposing a 10 year limit for qualification of PARF scheme is, in effect, forcing more private vehicles on to the road.

Using our family as an example, in 1986 we sold a 10-year old car which had travelled just over 100,000 km. We initially had good intention to keep it for a further 5 years as it was in very good condition, but later changed our minds for fear of continuing price increases resulting from government control measures. For the same reason we have just replaced another car of 9 years of age which has done less than 90,000 km and is in superb condition without a spot of rust. Both cars are still on the road. And I believe such 'preventive' buying is fairly common.

(c) Current PARF scheme encourages switching from bigger to smaller and cheaper makes and therefore does not serve its full purpose.

#### 2. *Road Tax*

Differential rates in favour of small capacity cars only force a switch to smaller vehicles and have no effect on car population control.

### 3. *Parking Fees*

Very effective in discouraging both usage and ownership if made sufficiently painful to car owners.

It is illogical for one to own a car which is often more expensive than one's HDB apartment heavily subsidised by the government. It makes even less sense if the same individual is further subsidised on parking lot.

### 4. *Petrol Tax*

High taxes only discourage usage and not ownership. They may encourage use of smaller capacity cars.

## SOLUTIONS

Following measures are proposed with aim of:

- reducing car population
- discouraging usage
- maintaining government revenue from cars.

### 1. PARF Scheme

- the scheme is to stay but with modifications.
- abolish the 10-year limit and allow cars in good shape to remain on the road for say, a further 5 years. Subject such cars to high taxes and stringent inspection while preserving their PARF value.
- revise ARF and PARF schemes so as to make cheap cars expensive to own. ARF prices can be made very high to make it painful to purchase a new car without removing one from the road.
- to discourage using car as an investment impose an automatic disqualification of PARF privilege once a car is transferred (even for the first time). As a less drastic alternative, a minimum period of ownership (say 5 years) is required for qualification of PARF privilege.

The loss in revenue on transfers may be made up by corresponding loss in PARF advantage.

### 2. *Road Tax*

- same rate for both big and small engine capacity cars.

### 3. *Parking Fees*

- to be made comparable to those of big cities in other parts of the world. A \$0.20 increase/hour and \$25.00/month are unlikely to have long term impact.



#### 4. *Petrol Tax*

- to be comparable to Malaysian's. Loss in revenue may be compensated by getting Malaysian registered cars to purchase petrol in Singapore.

Marked differences between the two countries in price will definitely drive owners to J.B. no matter how inconvenient. Apart from loss in petrol revenue, losses in other areas (e.g. food, entertainment) should not be overlooked.

PHANG KOK CHIEW

---

## Paper 22

From: Mr Paul Dixon,  
119 Sunset Way #04-01,  
Clementi Park,  
Singapore 2159.

Dated: 21st September 1989.

### INDIVIDUAL VIEW ON LAND TRANSPORT AND TRAFFIC MANAGEMENT

Name	Paul Dixon
Profession	Telecommunications Engineer
Qualification	B.Sc (Hons) Electronic Communication. C. Eng
Employer	Mass Rapid Transit Corporation (4 Years)

I am interested in the above subject, having worked in several countries and in Singapore for 6 years, I would like to make some suggestions to the above.

I am privileged being employed by the MRTC with awareness of Mass Transportation and living in Clementi Park - the only private housing estate with a shuttle bus to the MRT. The shuttle works very well and MRTC experience adds weight to my suggestions.

Please note that my comments are a personal view and totally unrelated to any MRTC policies, rules or regulations. I would be free to discuss where necessary.

PAUL DIXON.

---

#### *Foreward*

In order to exploit ERP of all its benefits, I would like to suggest that vigilant rules be implemented before ERP is phased into operation in the event that ERP doesn't meet schedule or suffers teething problems. (Preliminary tests could use taxi cabs as the first "guinea pigs", with free CBD access as a concession. Taxi cabs are heavy road users and would supply useful data and field trials). At present the evening ALS has not totally solved the problem, but relocated it elsewhere to the PIE/ECP. A balance between CBD road use and expressway usage needs to be made.

In addition to ERP I would suggest the use of remote control CCTV to complement the computerized traffic system. This is technically feasible and should be installed along main traffic routes or gantries for police traffic management and computer assisted override (for visual monitoring and clearing of traffic backlogs as well as a bonus for emergency service traffic control).

*Land space is precious and must be exploited to maximum use*

Large vehicles use up more space than small ones - I suggest the following:-

- (a) Monopolize and optimise the present bus routes with annual permits for specific routes at specific given times of the day (reason: private buses are sometimes observed to be empty, occupying road space in busy areas).
- (b) Ban all HGV and goods vehicles in CBD during ALS hours or introduce a high levy for access (reason: loading and unloading is not necessary during ALS times, and companies should promote staggered work hours to adjust loading and unloading. This would free the roads to allow people to get to work quicker - time is money!).
- (c) Rationalize maintenance vehicle work hours to non peak times, for example ENV water lorries can sometimes be observed watering plants down Orchard road at 8.30 am, which causes traffic congestion. Re-scheduling to another non peak working hour could be implemented for all service sector operations.

*Increase fines tenfold - Bad drivers in Private and Company Vehicles cause traffic thrombosis in the CBD*

- (d) *Increase Parking/Traffic Offences by ten times during CBD hours*

Fines are presently insufficient to deter people from breaking the following rules which can be observed every day in Singapore: parking on double yellow lines, stopping on main roads, crossing double white lines, driving erratically, jumping traffic lights etc. Remember! a car waiting, or van loading illegally on a busy 3 lane street turns the road into a busier 2 lane street - this yields congestion and traffic jams.

- (e) *Police Vigilance should be stepped up to stop people from breaking rules they know is against the Law.*

Most people agree that drivers should not break the law and as such, this suggested fine increase should be palatable to all law abiding citizens, for others, it is a bitter pill to remind them of the law.

*Bring the people to the MRT/Bus Routes in Areas where the MRT cannot reach the people*

- (a) Passengers normally use the quickest and most convenient reliable mode of transport. Clementi Park condo has a reliable proven shuttle service to the MRT and main bus routes, cars can thus be left at home and public transport utilized.
- (b) Promote private company feeder services from private/HDB estates to MRT/SBS interchanges in order to apply economic persuasion to use public mass transportation systems, rather than private vehicles.

### *Build Free Parking Multi Storey Car Parks near MRT Stations "Park and Train"*

Being a car owner, an MRT employee and privileged with free parking at MRT stations - I often park at the MRT and take the train into town, rather than drive. I do this because it is very convenient, cheap and less hassle when attempting to find a parking space in the middle of town.

FREE PARKING FOR MOTORISTS would be an economic form of persuasion of keep cars out of busy areas and promote public transport. Costs and maintenance involved could be borne from car taxes. Trials could be carried out near MRT stations which have nearby large car parks. Night time parking would be fee paying, to prevent abuse of the free parking incentive.

### *Other Measures*

(a) Move government/stat board operations from CBD areas for those which do not need to be in the CBD to function.

(b) Promote Common Pool Vehicle Usage or contract transport facilities for large organizations such as PWD/PUB/ENV etc. (reason:- vehicles are generally under utilized and shared vehicles would reduce operating costs, prevent duplication of traffic routes and decrease vehicle numbers on the road. This suggestion should work if gradually phased into operation).

(c) Allow motorcycles free access into CBD with tenfold fines if traffic rules are not obeyed, (reason:- bikes allow a quicker traffic flow and do not use up as much road or parking space as a car/bus or lorry).

(d) Build more MRT routes in highly populated areas.

(e) Promote staggered stat board/government and private company working hours since less people yield less traffic at peak times. This is suggested as government and statutory boards employ a large proportion of the working populous.

Finally - monetary measures should be introduced as a last resort to un-tried alternative policies, ie high PARF, road taxes, parking fees etc, may not solve the problem of limited road space, since affluence among business tends to be relatively oblivious to additional vehicle running costs.

Measures should be reviewed and introduced which cannot be overcome by affluence.

## Paper 25

From: NTUC Comfort,  
383 Sin Ming Drive,  
Singapore 2057.

Dated: 22nd September 1989.

Attached is a paper stating NTUC Comfort's position on "The Role of Taxis within the Total Transportation System in Singapore".

LEW SYN PAU,  
*General Manager.*

---

### THE ROLE OF TAXIS WITHIN THE TOTAL TRANSPORTATION SYSTEM IN SINGAPORE

#### *Taxi as a Public Transport*

Taxi is a public transport. Taxi ridership is 700,000 passenger-trips per day, which is more than double that of the MRT. This high ridership clearly shows that taxi is an important mode of public transport, providing comfortable and personalised service, not only to our local commuters, but also the many tourists who visit our country each year.

Although a taxi has four wheels and a body, a taxi should not be equated to a private car. Unlike private cars, taxi fulfills a public transport need. Those within the upper income bracket can well afford their own private cars. But the lower and middle income earners have to depend on public transport such as taxi to commute. For example, a worker may have to depend on the taxi to send his pregnant wife to hospital in the middle of the night. Taxi is indeed an essential public transport, very much like buses and MRT.

#### *Concessions and Subsidies for Public Transport*

MRT's infrastructure of \$5 billion is paid for by the Government and will not be recovered through fare. This amount is treated as subsidy provided by the Government. Similarly, public buses do not pay ARF and enjoy concessionary diesel tax. In both cases, full market cost is not imposed for one reason: both buses and MRT are public transport. To do otherwise would make MRT and bus fares unaffordable to the lower income earners. Likewise, taxi should not be treated on par with private cars, and made to bear the full cost of ARF and road tax. Already, taxi is paying higher diesel tax than public buses although they occupy less road space than the buses. Being a public transport, taxi should continue to be given existing concessions in taxes and costs. If taxis were made to bear the same cost as operating a private car, then the present fare will have to increase substantially, making taxi service prohibitive to many existing commuters. This will cause

unnecessary hardship to many of our lower and lower-middle income earners. Our Commuters' Survey shows that two-third of our commuters earn less than \$2,000.00 per month. They take taxis about twice a week for the important occasions when they require the convenience of door-to-door service or when time is a premium. If the government wants to discourage car-ownership, then taxis, the only public transport service providing the comfort of door-to-door service, should remain affordable with concessionary taxes.

#### *Regular Taxi Fare Revision*

Any action on the part of the Government to increase the operating cost of taxi should be introduced gradually and in an orderly fashion. This is to allow the industry to adjust itself and to avoid any undue hardship on the part of the taxi drivers. Unlike other fiscal measures, prior consultation and knowledge of impending taxes will give no advantage to taxi operators as these increased taxes will eventually have to be paid.

Similarly, taxi fare revision and adjustment should be made regularly. We recommend that the Public Transport Council (PTC) revise taxi fares periodically, say, once every two years in consultation with the industry, taking into consideration the economic situation, demand and supply of taxi, and operating cost. We note that this proposed periodic review is already a practice in major cities such as HongKong, Tokyo and London. This regular review, with its gradual and marginal adjustment, will ensure a more steady supply and demand pattern. Most important of all, it will cause less disruption to the lives of our taxi drivers.

#### *Taxi Fleet Size*

We support the policy of the Ministry of Communications and Information to ease congestion on the road. For this reason, we feel strongly that increase in taxi fleet should not be liberally approved, as this will only add up to more congestion on the road. In our view, a better measure will be to adjust fare to bring about a more desirable demand and supply situation in order to maintain smooth flow of traffic on the roads.

The total fleet size of taxi should be regulated. As part of its overall national transportation planning, the Government has to ascertain the optimum number basing on indicators such as taxi-population ratio and empty cruising rate. Once put on the road, it is not easy to take a taxi off the road because of the seven year life-span of the taxi. To have too many taxis on our roads will result in many of them cruising empty and adding to congestion. A regulated taxi industry, with the Government in close consultation with the taxi operators, is desired and preferred.

---

## **Paper 26**

From: The Chartered Institute of Transport,  
(Singapore Section),  
Tanglin P.O. Box 321  
Singapore 9124.

Dated: 22nd September 1989.

### **SUBMISSION TO THE SELECT COMMITTEE ON LAND TRANSPORT**

The attached submission is made to the Select Committee on Land Transport by the Chartered Institute of Transport (Singapore Section).

The C.I.T. is the professional body for those engaged in transport and physical distribution covering all sections of the industry, namely land, sea and air, and both passenger and freight. It was formed in the United Kingdom in 1919 as the Institute of Transport and granted a Royal Charter in 1926. The Singapore Group was formed in 1971 and converted into a Section in 1986.

This report was mainly produced by the C.I.T. Land transport Subcommittee. The lack of time for preparation has meant that the submission had to be briefer than we would liked. If you should require further details, please contact the undersigned.

MIKE GRAY,  
*Chairman.*

DAVID J. TURNER,  
*Vice-Chairman.*

MICHAEL TAY,  
*Hon. Secretary.*  
*Land Transport Sub-Committee.*

## TABLE OF CONTENTS

1. INTRODUCTION
2. MEASURES AFFECTING VEHICLE OWNERSHIP
  - 2.1 Scrapping of PARF
  - 2.2 Road Tax
  - 2.3 Q-Plate Cars
  - 2.4 Quota System
3. VEHICLE USAGE RESTRAINT MEASURES
  - 3.1 Electronic Road Pricing
  - 3.2 Evening Area Licensing Scheme
  - 3.3 Car Parking
  - 3.4 Parking at MRT Stations
  - 3.5 Variable Petrol Pricing
4. PUBLIC TRANSPORT ISSUES
  - 4.1 Taxi Fares
  - 4.2 Transport Users Committee
  - 4.3 Introduction of New Services
  - 4.4 Feeder Services to MRT Stations from HDB Estates
  - 4.5 Improvements to the Quality of Public Transports
5. OTHER TRANSPORTATION ISSUES
  - 5.1 Commercial Vehicle Parking
  - 5.2 Expressways
  - 5.3 Traffic Impact Studies
  - 5.4 Advanced Means of Transportation
  - 5.5 Pedestrianisation
  - 5.6 Enforcement



## 1. INTRODUCTION

There are two ways of dealing with traffic problems, either minimal control or control over ownership or usage or both.

In cities where there is minimal control over the car population, congestion and a lack of parking place at the ultimate destination will inevitably result in people moving away from the usage of cars to public transport. However, the various forms of public transport that use the roads will face the same sort of congestion. Whilst this type of transport policy consists of minimum interference, the social and economic cost, particularly as regards the loss of time, is very high.

In cities where congestion is contained by traffic control measures, traffic flow is quick thus reducing the 'lost time cost'. However, there is no traffic restraint system that can be completely fair to the whole population. One or other group may be disadvantaged, whether it be the lower income group or a group such as those living in the Central Business District.

Singapore has chosen the latter policy with control over traffic by fiscal measures both on car ownership and car usage. These measures have been linked to an improvement in public transport with better bus services and the introduction on the Mass Rapid Transit System (MRT).

Even with the introduction of traffic control measures the number of cars in Singapore has been speedily increasing. However, the traffic flow has still, in general, been unaffected. This is basically because of the significant investment in new roads, expressways and flyovers over the last few years and the introduction of advanced traffic control systems in which the traffic lights are linked.

The problem is that most of the major expressways are now complete. Should the number of vehicles continue to increase at the present rate, the resultant increases in the traffic on existing roads will mean that congestion will inevitably occur.

C.I.T. agrees with the Government policy of keeping the Singapore roads free of congestion and the maximisation of the use of public transport, as Singapore has limited land space and it is important to avoid the economic cost of congestion.

Whilst, we agree in general to the present traffic management policies adopted, we consider that a certain amount of fine tuning is required. Furthermore, we consider that fiscal restraint should be placed on those that use their cars rather than those who own cars. It is, however, recognised that some restraint is required on car ownership due to limited land for parking facilities.

We have set out in the following paragraphs certain ideas which we consider warrant consideration by the Select Committee.

## 2. MEASURES AFFECTING VEHICLE OWNERSHIP

### 2.1 *Scrap PARF*

The reason for the introduction of PARF was to prevent very cheap and old cars being used on the roads by people who cannot otherwise afford to buy new cars. PARF has been relatively effective in the scrapping of cars. However, it has had two detrimental side effects. Firstly, the rise in PARF values has meant that prices of some cars have been retained artificially high, so making the car a commodity. Secondly, higher quality cars with many more years of useful life remaining are being scrapped.

Even with the PARF system, there are still many older cars on the road that can be purchased relatively cheaply as many car owners decide to retain their cars beyond 10 years due to the high prices of new cars and the fact that car may still have many more years of service.

We would suggest an alternative to the PARF system which would ensure that the cost of owning an older car is not lower than that of owning a car less than 10 years old.

Our recommendation is that an additional road tax is imposed on cars over 10 years old. This tax should be at least as high or higher than the notional depreciation of a car under 10 years old. PARF should then be phased out.

The result of these measures will be that capital costs of older cars may be less. However, those that cannot afford to buy new cars will not enter the market as they will not be able to afford the higher road taxes.

Good cars, under this system, will most likely be kept more than 10 years. To avoid a large number of badly maintained cars the road worthiness test should be made stricter to cover exterior and interior condition including paintwork.

The new measures would need to be phased in gradually, giving a transitional period, so that those that have purchased cars near the 10 year, PARF limit, would not be unduly affected.

### 2.2 *Road Tax*

The existing ARF and road tax system seriously penalises those owners of the larger and more expensive cars with the higher engine capacity. It has been stated that the fiscal measures on cars are aimed at traffic control rather than as a Government fund raising exercise. As far as traffic control is concerned, the amount of road space taken by the higher cc cars is no more than that for the smaller cars. Any increases in size is more than compensated by the better performances such as braking and acceleration.

It could be said that the larger car uses more petrol and so people should be discouraged from using larger cars. This reason is not valid as the cost of petrol as part of the total costs of running a car in Singapore is relatively small. Furthermore, petrol is not, at present, a scarce commodity.

The artificially wide differences in capital and operating costs to owners using a larger capacity and normally better quality car as compared to the smaller capacity

car has meant that potential car owners tend to be pushed to the cheaper and lower quality car.

For all potential car owners, there is both a capital and revenue cost level at which that potential car owner will enter the market. We consider that the ARF and road tax system should be so adjusted to set this minimum level and the system should be such that the public are not unduly discouraged from owning higher quality cars.

To achieve the above, we would suggest that a fixed rate of road tax is charged per car rather than the existing sliding scale rate, whereby the higher capacity cars are taxed at a higher rate per cc and the tax is calculated on the cc of the car.

Together with the above, we would suggest that the ARF, which is presently on 175% of the open market value of a car, be at a fixed rate per car. This rate should be flexible and so could be used to control car ownership by fiscal means.

We would further suggest that the rate of annual road tax be reviewed should Electronic Road Pricing be introduced island wide. It may be necessary to move some of the annual costs of a car from the fixed annual charge to that of a charge based on usage.

### 2.3 *Q-Plate Cars*

Businesses which wish to claim a tax deduction for motor car expenses need to register their motor cars as company cars (Q-Plate). Whilst the expenses of company cars, up to a limit, are tax deductible, there are additional measures introduced to compensate for the tax deduction, for instance, higher registration fees, annual road tax at twice that of an "E" Plate and Area Licensing Schemes fees at twice that of an 'E' Plate car.

The above measures have not been reviewed for a number of years and the situation now has arisen that the extra costs associated with a 'Q-Plate' car often exceed the tax benefits given. Under these circumstances, we understand that it has become the practice for businessman to register cars under 'E-Plate' under a nominee type of arrangement.

As for employers who drive 'Q-Plate' cars, they are taxed on their private usage of the vehicle at the following rates per mile.

employee provides petrol	10-15c per mile
employer provides petrol	20-30c per mile

These rates are less than the actual cost per mile of using a motor car.

'Q-Plate' cars are not entitled to PARF. This means that the second hand value of a 'Q-Plate' car is normally less than that of the same car registered under 'E-Plate'.

The disincentives aimed at 'Q-Plate' car seem to be based on the fact that 'Q-Plate' cars are mainly seen as a 'perk' for employees. The result is that a company who wholly or mainly makes use of a car for business purposes is penalised. '

Rule on the deduction of travelling expenses for employees also show major anomalies. When an employee travels by taxi in the course of business and claims

the expenses, it is tax deductible. If the employee uses his own car and claims costs incurred the employer cannot claim a deduction.

We consider that the whole system of taxation of motor vehicles and the 'Q-Plate System' should be reviewed to make it both more equitable and more efficient. Some of our ideas are as follows:-

- (1) Remove the 'Q-Plate' classification for cars and also the different rate for road tax, ALS etc.
- (2) Allow a full deduction of capital costs of motor cars owned by a business against its taxable projects over the useful life of the car, say 10 years.
- (3) Allow a full deduction of running costs.
- (4) Tax an employee on the full cost of the private use of the car. A different rate per kilometre could be used for different sized cars. A survey could be carried out on the average distance of private travel and this be applied unless the employee could prove he did less. The present rates used are far too low.
- (5) Employers who reimburse employees for motor expenses of employees using private cars should be entitled to claim against tax the expenses based on a realistic rate per kilometre.

## 2.4 *Quota System*

We are against the suggestion that there is a quota system to control the number of cars as whatever method is used it is likely to be unfair. For instance, if the quota consists of a perpetual licence it will create an elite class of car owner who would make a substantial profit on resale; as with golf club memberships. For a potential new car owner, the price of getting a car license would no doubt be considerable.

Other methods of allocating cars are as likely to have adverse consequences, for instance a ballot would just give cars to those that are lucky.

Many other alternatives have been put forward but they all have flaws. For instance suggestions have been made that one car is only allowed per household. This would disadvantage those who live in large families. Another suggestion is that those who need cars should have them. How does one decide on a need?

A further suggestion is that only those who have a parking space can have a car. We understand that this type of system is used in Japan. At present, there is no shortage of parking space so there is no need for the measure.

## 3. VEHICLE USAGE RESTRAINT MEASURES

### 3.1 *Electronic Road Pricing*

In principle, C.I.T. supports the proposed introduction of ERP. A pilot study using ERP in a restricted area was successfully used as a means of easing congestion in Hong Kong between 1982 and 1985. Its relative advantages over other traffic restraint measures are well documented and in terms of cost-benefit ratio, ERP does, in the long term, show considerable benefits once the initial installation costs have been covered.

The main reason quoted why ERP was discontinued in Hong Kong was the threat to the privacy of vehicle owners (i.e. the possibility that drivers routes could be individually traced). It is interesting to note that the Hong Kong authorities are now reconsidering ERP in the light of continued traffic congestion problems.

One of the possible criticisms which should be faced relates to the method of charging. Should a vehicle owner be charged once per entry or charged for the amount of travel within the restricted area? Clearly, the latter is more equitable but is far more expensive in terms of equipment as detectors would be required at regular intervals along links and at all major intersections. A single charge per entry fails to indicate the amount of vehicle usage (i.e. the amount of veh. kms.) unless several small zones are used whereby a vehicle would be charged each time it crossed the cordon. Also consideration will need to be given to any exemptions and varying charges for different times and categories of road. The latter will depend upon the state of congestion and this will require on-line monitoring and regular adjustment.

### 3.2 *Evening Area Licensing Scheme.*

The Evening Area Licensing Scheme (ALS) has reduced the traffic in the Central Business District, but has had the disbenefit of restricting until 7 pm the business of shops in Orchard Road and keeping some of the residents from coming home before 7 pm.

It would have been preferable to have another gantry point for the evening ALS at exit points as it should be those leaving the Central Business District that are penalised. We understand that this was not practically possible and that Electronic Road pricing will overcome this problem in the future.

We would suggest that the area covered by the ALS be reviewed to see whether that part of Orchard Road from Scotts Road to Clemenceau Avenue could be taken out of the ALS. The reasoning behind this suggestion is that most of the offices are around the Central Business District area not in Orchard Road. Orchard Road consists mostly of hotels, shops and residential properties.

This would enable those living in Orchard Road to obtain access to their houses without passing through the ALS and would help bring back the customers to the shops before 7 pm.

### 3.3 *Car Parking*

Presently, there is an over provision of car park space within the CBD with very low occupancy rates.

Control of car parking space is a recognised traffic restraint measure and together with the ALS or possibly ERP in the future, should provide a useful tool in the fight against congestion.

It is recommended that stricter control be imposed upon the provision of car park spaces for new buildings. This would necessitate changing the present parking standards. One group of users who are presently adding to congestion are those people who are provided with free parking at their place of work. To encourage modal transfer, it is recommended that these people be taxed so as to cover the hidden costs of free parking.

### 3.4 *Parking at MRT Stations*

The Government are urged to consider the provision of car parking spaces at MRT station in order to encourage modal transfer from car to public transport.

Certain outlying stations such as Buona Vista, Lakeside, Boon Lay and Novena, where land is available would appear to be ideal sites. The provision of park 'n' ride and kiss 'n' ride facilities are likely to promote modal transfer and it is expected that such schemes will be better supported over longer rather than shorter distances. The most notable change however will be in the form of reduced congestion and a fall in veh. kms.

Such car parks should not be provided at stations adjacent to public housing estates as their prime use is likely to be jeopardised. Parking charges should be reasonable so as to encourage modal transfer and not make the total cost of travel by car and train prohibitive.

### 3.5 *Variable Petrol Pricing*

In some countries petrol pricing has been successfully used as a means of reducing car usage. However, the situation in Singapore is different. This is because the amount of petrol used per car by Singapore cars is generally low by world standards because of the limited distances of travel on the island and more importantly the component of petrol cost to the total cost of a running a car in Singapore is similarly very low.

The use of petrol is rather like using a credit card as the pinch is not felt each time the car is used but only on the filling of the tank. Even the filling of the petrol tank is now less painless due to the extended credit given by the petrol companies.

For petrol to be at all effective as a means of traffic restraint the petrol prices would need to be increased very significantly perhaps four times the present price or more.

C.I.T. suggests that petrol pricing is not used as a method of restraining vehicle usage. There are other alternative methods of restraint which are far more effective. Consequently, it would be better if petrol was maintained at the previous low cost. The recent small petrol hike was a half measure which would have little effect on car usage and has caused unnecessary aggravation on both sides of the Causeway with the need for the 'half tank' rule for cars to be introduced.

## 4. PUBLIC TRANSPORT ISSUES

### 4.1 *Taxi Fares*

Taxis contribute to congestion in the same manner as other motor vehicles. This means that the fares charged by taxis should not be so cheap that passengers would choose the taxi rather than the MRT or bus services. We would consider that taxi fares should be very slightly lower than that of running a private car. This would mean that those on the margin may opt to use taxis and public transport rather than owning a car.

## 4.2 *Transport User Committee*

It is recommended that a Transport User's Committee be formed. The purpose of this committee, which should be a Statutory Board would be to investigate complaints and invite suggestions from members of the general public relating to all aspects of public transport services.

Similar committees are found in most developed countries.

## 4.3 *Introduction of New Services*

With the introduction of MRT Services, the travel patterns of public transport users in Singapore are likely to have changed.

It is suggested that the authorities re-examine peoples' travel patterns and consider introducing new services wherever the demand exists. Although such services may not prove to be cost effective, they could be subsidised from other more profitable services.

## 4.4 *Feeder Bus Services to MRT Stations from Private Estates*

The introduction of the 'M1' Feeder service into a private estates is a step in the right direction. Whilst the service is still in its infancy, we consider that it may face certain problems.

Firstly, the bus frequency is only every 15 minutes in peak periods and every half an hour in non peak. A more acceptable schedule would be at least every 10 minutes in the peak and at least every 15 minutes in the non peak. As the travel distances are relatively short, potential passengers will not be willing to wait long and so possible patronage may be lost.

Secondly, it would seem that the service is expected to be self supporting otherwise it may be withdrawn. We would maintain that the traditional financial cost centre measurement of performance should not be applied in this case and that the benefit to the MRT should be factored into the calculation.

Looking from the perspective of the MRT every passenger taken from a private housing estate, who was not previously a public transport user, will contribute an additional passenger to the MRT at little or no additional cost, as the service is already operating at below capacity. This fare only arises if the feeder service is in operation, if the feeder service is withdrawn the fare is lost.

For the above reason, we would suggest that the bus companies are compensated financially by MRT for bringing in passengers from the private housing estates to the MRT stations and that this income should be taken into account in deciding whether the service should be continued. Furthermore, the feeder buses will reduce traffic congestion in the business district as the car driver will leave their cars at home. Consideration should be given to supporting the bus feeder service from funds raised from the ALS fees.

We could further suggest that smaller airconditioned buses are used for the service as it is unlikely that there would be the demand for the larger single decker buses presently used by SBS.

#### 4.5 *Improvements to the Quality of Public Transport*

The quality of public transport should be upgraded. Areas which can be improved on are as follows:

- Improvements to buses in particular buses should be airconditioned.
- Quality of service to be upgraded and staff to be better trained.
- Information systems, such as bus schedules to be introduced taking into account the latest technology advances.

Together the upgrading of bus services there is a need to improve the access to public transport and provide possible covered or shaded walkways. The proposed scheme by the Ministry of National Development for Orchard Road is a step in the right direction.

### 5. OTHER TRANSPORTATION ISSUES

#### 5.1 *Commercial Vehicle Parking*

There is plenty of evidence that lorries park indiscriminately within housing estates overnight.

It is well known that lorries are often provided to ferry employees to and from work and consequently are parked overnight outside the driver's residence. C.I.T. consider that vehicles should not be allocated for this sole purpose.

It should also be pointed out that vehicles travelling empty offer no real service and it is this category of vehicle that are responsible for structural damage to our roads.

Goods vehicles parked overnight adjacent to housing estates create the unwanted environmental issues of noise, pollution, visual intrusion and danger.

There are several well documented means of controlling the overnight parking of heavy good vehicles including:-

##### (a) *Operators Licensing Procedure*

This system is applicable to all goods vehicles in excess of 3.5 tonnes gross weight and affords Authorities the opportunity of effectively controlling parking within their area by objecting to licenses being issued or renewed where a haulier or operator has insufficient space to park his vehicles off the highway.

##### (b) *Overnight On-Street Parking Ban*

Although less effective, unless suitably enforced, such bans can be introduced in areas which are particularly environmentally sensitive.

##### (c) *Lorry Parks*

Special designated areas can be reserved or allocated for the overnight parking of heavy goods vehicles.

Although they should be provided well away from public or private housing, they should be at a convenient location to ensure that their use is maximized. Basic facilities such as water should be supplied.



## 5.2 *Expressways*

C.I.T. supports the introduction of a surveillance system for the expressways.

With certain sections of the expressways experiencing average two-way daily flows in excess of 160,000 veh/day, it is paramount that measures be provided to facilitate the passage of vehicles using these roads. Research has indicated that high accident rates coincide with heavy traffic volumes and with human error being cited as the cause of 95% of accidents, matrix-dot warning signs informing drivers of roadworks, lane closures, accidents, and reduced speed levels may all help to improve driver behaviour and so bring about a reduction in accidents.

Any form of vehicle breakdown or accidents often mean long delays to motorists using the expressways. Consequently, the early detection of accidents would help the authorities to clear the hazards and so reduce delay. This could be achieved through loop detectors acting as incident detectors together with the provision of CCTV for critical sections.

Certain bus services are presently routed along sections of the expressway. In doing so, they attract the public to the side of the expressway creating a possible safety hazard and the vehicles have great difficulty merging into the expressway once passengers have boarded or alighted especially during peak hours. An example of this, are the buses operating along Jalan Toa Payoh. It is recommended that these services be rerouted off the expressway.

C.I.T. also urge the Government, as a matter of urgency, to introduce the necessary legislation to prevent pedestrians from walking along or crossing the expressways. There are numerous examples of people crossing or carrying shopping and joggers using the expressways as athletic tracks. This practice must be discontinued. The number of pedestrian fatalities, particularly on the ECP, is presently unacceptably high.

## 5.3 *Traffic Impact Studies*

C.I.T. would like to see Singaporean Authorities adopting a similar policy to that of other developed nations when vetting applications for new major complexes from prospective developers.

This would put the onus on the developer to provide adequate parking space to meet demand and in addition show that the traffic generated and attracted would not cause the capacity of neighbouring links and intersections to be exceeded. In effect, a traffic impact study should be performed for all major new developments.

## 5.4 *Advanced Means of Transportation*

We would support the concept of feeder services to MRT stations from HDB estates including the introduction of through ticketing.

In the longer terms, we would suggest that, in the more densely populated estates, an investigation is carried out into more advanced passenger mover systems, or an unmanned mover system such as that proposed for Terminal 2 at Changi Airport.

The advantage of this type of system is that it is quick, needs little/labour and can be linked to the MRT station at the ticket office level for the above ground stations, thus saving transit time between the two systems.

### 5.5 *Pedestrianisation*

In many developed nations, parts of the central areas of cities have been pedestrianised is an attempt to provide amenable and pleasant surrounds in which to stroll around and shop. For many disadvantaged groups such as the elderly or disabled, such schemes have opened up new horizons.

Initially, many businesses expressed concern over the introduction of pedestrianisation schemes due to a possible loss in revenue, caused by a reduction in accessibility for their patrons. However, time has shown that in fact the reverse effect has been produced. The pleasant environment has attracted many extra people and takings have, in general, risen.

Whilst the partial pedestrianisation of Orchard Road during part of the last Sunday of each month is a welcome start, serious consideration could now be possibly given to identifying locations which could be permanently pedestrianised. Such areas would be of particular appeal to tourists.

### 5.6 *Enforcement*

There is a real need to increase the level of enforcement currently carried out by the Traffic Police in a bid to improve and influence driver behaviour and reduce the incidence of illegal parking.

The latter is a particularly worrying problem as many pedestrian accidents (especially to the young) are caused by people emerging from behind or between parked vehicles. In addition, illegal parking at the sides of a road effectively reduces the amount of space available for traffic flow, so limiting its capacity. Two examples, of such situations are Serangoon and Bendemeer Roads.

---

## Paper 27

From: School of Building & Estate Management,  
Faculty of Architecture & Building,  
National University of Singapore,  
10 Kent Ridge Crescent,  
Singapore 0511.

Dated: 22nd September 1989.

I am pleased to attach a copy of the School's observations on Land Transportation Policy for consideration by the Select Committee.

ASSOC PROF LIM LAN YUAN,  
*Head, School of Building  
& Estate Management*

---

### SUBMISSION TO THE SELECT COMMITTEE ON LAND TRANSPORTATION POLICY

Compared with the piecemeal policies pursued in other countries, Singapore's urban transport strategy is relatively comprehensive embracing, as it does, considerable investment in the supply of the necessary transport infrastructure supported by complementary traffic and other policies directed at private vehicle restraint and the promotion of public transport. Although the policy package has been quite successful in curbing urban traffic congestion, the strategy is far from perfect and there is evidence to suggest a number of internal contradictions within the bundle of actual policy measures which, in implementation, may be giving rise to problems of allocative inefficiency and inequity.

The principal deficiency in the strategy, as we perceive it, is the lack of any explicit policy objectives based on a considered definition of the nature of the actual urban transport problem. Without specifying precisely what is meant by congestion and why it constitutes a problem, it is difficult to assess the appropriateness of remedial policies and to accurately measure their impact. In the first instance, therefore, we would recommend that objectives be defined more precisely and, because of the obvious environmental constraints acting against any further major road building beyond already committed levels, we would suggest that the principal objective of policy should be to optimise the utilisation of transport resources subject to appropriate distributional criteria, i.e. policies should not only be economically efficient but they should also be socially desirable in the sense of being equitable. Given such a policy framework, our observations on and evaluation of selected aspects of the land transportation policy are as follows:

## *Vehicle Restraint*

We fully support measures to curb road usage and control congestion but, as already implied above, congestion should not be measured simply in terms of the extent to which traffic volumes exceed the design capacities of roads (a traffic engineer's definition) - rather, a broader transport economist's definition based on a road's economically optimum capacity should be used. This, of course, implies the acceptance of some delays.

As to the effectiveness and appropriateness of vehicle restraint measures currently in use, the ALS is obviously the most significant and there is little doubt that it has been a major success. There are, however, two operational issues which we would suggest merit further consideration.

First there is the impression that, during its morning operation, roads within the CBD are under-utilised. This would suggest that the licence fee may be too high. The second issue concerns the evening, when the scheme appears to be penalising vehicles moving in relatively non-congested directions, i.e. it should be penalising those leaving the CBD not those entering it. Clearly we feel that the efficiency of the scheme would be improved if these issues were addressed. However, during its hours of operation, we are also concerned with the question of traffic diverting to less suitable routes to avoid the scheme, to the environmental detriment of these other areas. This appears to be a particularly acute problem in the evening and, although the distributional consequences of such a re-allocation are far from clear, they certainly need to be considered in any evaluation of the scheme's effectiveness.

Of the other vehicle restraint measures such as petrol taxes, traffic management and parking controls, all have been employed with some degree of success, but we do have reservations about current parking policy. In order to reduce on-street parking and facilitate traffic management, all new buildings/developments are required to provide adequate off-street parking according to standards laid down by the URA. Unfortunately, such provision is an incentive for car owners to drive into the city and can often operate to the detriment of vehicle restraint, especially if these spaces are relatively cheap to use. This problem has been recognised in many European cities where development control policies are now directed at strictly limiting the provision of parking lots, and we would favour such a policy in Singapore.

Ultimately, the best method for controlling road usage is electronic road pricing. Although we strongly support the introduction of such a scheme, its implementation would need to be handled with some sensitivity. The centralised recording of a car owner's daily movements is likely to raise "civil liberties" objections to ERP, and we consider it particularly important to build-in appropriate safeguards to protect the privacy of individuals.

## *Car Ownership Controls*

Although we agree that controlling the population of motor vehicles contributes to the containment of urban congestion, it is important not to exaggerate its significance. Some commentators have even suggested that ownership controls

should be removed because, in their present form, they simply deny legitimate consumption outlets to a population which has earned its growing affluence. According to this line of thinking it is the inefficient use of cars that is the main cause for concern, i.e. the emphasis in policy needs to be switched from controls over ownership to stricter controls over use (a very realistic possibility, given the introduction of ERP). Although we would support some relaxation in this area, we would not abandon ownership controls altogether. However, there is clearly a need for some revision in the application of current policy.

It is a strange irony that the PARF system is now becoming an attractive incentive to buying a car. Because scrap car prices tend to follow new car prices, and given recent sharp increases in the latter because of rising taxes, duties and exchange rate fluctuations, the capital depreciation on a car is relatively insignificant. Subject to meeting the initial capital outlay, cars have therefore become a relatively good investment and are increasingly perceived as capital rather than consumption goods. In other words, despite higher prices, private motoring in Singapore is now a relatively cheap activity. Given the current situation, the policy is also particularly inequitable since the capital outlay is now the only major constraint operating against ownership and this is likely to impact disproportionately on lower income groups.

It is difficult to know how to reconcile the above problems, since all control systems are likely to prove inequitable to some extent. However we feel that greater control of the vehicle population could be exercised if all buyers of new cars were required to scrap old ones. The authorities could then periodically increase the car population by allowing an additional quota of new registrations free of the scrap car requirement. The latter could be subject to competitive bidding by dealers.

### *Public Transport*

There are a number of areas where we feel that improvements can be made in the public transport system.

Firstly, we would argue that an integrated ticketing system should be introduced as a matter of priority. This should not only be designed to facilitate interchange, but also to promote a more efficient use of competing modes where there are service overlaps, particularly at peak times when some services are operating at full capacity. As a rule of thumb, buses should be for shorter trips, while the MRT should be used for longer journeys. Such a new system is likely to require a radical and possibly unpopular restructuring of bus fares, where long journeys are currently very cheap and short journeys relatively expensive with all the consequential inequities and inefficiencies associated with cross subsidies. Furthermore, revised fares should also recognise the temporal pattern of demand with its peak-load problems during the morning and evening rush-hours, and differentiate prices accordingly. There should also be some experimentation with novel pricing systems such as family tickets, shoppers' tickets etc. Interestingly enough, the introduction of ERP would facilitate a more efficient price system for public transport based on peak/off-peak differentiation according to marginal cost principles.

Secondly we feel that there is considerable scope for improving bus feeder services from housing estates to MRT stations. Improvements need to be made in the comfort, convenience and frequency of such services, and we would suggest that there is considerable scope here for more private sector participation.

A third issue concerns the provision of park-and-ride facilities at suburban MRT stations the provision of which we think would provide a strong incentive for a car to MRT transfer for CBD travellers.

Finally we would argue for a more general improvement in the comfort and convenience of buses. Evidence from overseas suggests that ridership levels are for more sensitive to changes in these variables than to, say, fare levels. A fully air-conditioned service should, therefore, be a priority.

### *Taxis*

On the role of taxis in the national transportation system, we would argue strongly that these should be considered as part of the public transport system, and policy should be formulated accordingly. Taxis should not, therefore, be subject to the same financial penalties as cars, especially once ERP is introduced. We would, however favour quality control of the fleet to ensure passenger comfort and safety, but the taxi population and level of fares should be subject to less control and more influenced by market forces. Finally, taxi stands should be located more conveniently and there should certainly be more and better interchange facilities for taxis at MRT stations.

### *Commercial Vehicles*

Policies for commercial vehicles should reflect their role in the wider economy, but will need to consider their impact on the environment and be tempered accordingly. The introduction of ERP will clearly help to control such movements but we would also support the designation of specific, less environmentally sensitive routes for use by heavy lorries. Appropriately located lorry parks and convenient overnight parking facilities for smaller commercial vehicles should also be provided.

### *Transport Planning*

Our final observation relates to the actual transport planning process which we feel is not sufficiently cognizant of the dynamics of land-use and transport interaction. For example, the building of new and improved roads to ease congestion, doesn't simply divert and accommodate existing traffic, levels more comfortably but, because of the impact on land-use activities and land values, they actually generate new trips and often serve only as short-term palliatives pending the emergence of new and expanded patterns of movement. The converse is, of course, also true - major changes in land-use, by either altering the size and distribution of the residential population or shifting industrial location, etc., tend to change the pattern of transport demand. The land transportation strategy should, therefore, ensure that there is an efficient balance between land-use activities and the potential for communication between such activities. The absence of a land-use

planner on the technical committee considering policy options for a future land transport strategy is, therefore, a cause for concern.

We welcome this opportunity to present our views and will gladly elaborate on any of the points raised.

---

## Paper 29

From: Mr Abdul Hussain, Mr Robert Powell  
& Mr Jack Tan,  
School of Architecture,  
Faculty of Architecture & Building,  
National University of Singapore,  
10 Kent Ridge Crescent,  
Singapore 0511.

Dated: 21st September 1989.

### SUBMISSION TO SELECT COMMITTEE ON LAND TRANSPORTATION

- A. *The views submitted mainly covers the causes leading to intensive usage of roads within the Central Business Area.*

Urban Development is about providing planned spaces for 'activities' to take place and activities cannot take place without providing facilities for people and goods to move about efficiently and conveniently. Therefore Urban Development has two main components, 'activities' and 'movement'. Although activity and movement are inter-related and one generates the other, movement will cease to exist if there were no activities. Transport Engineers, generally perceive movement from zone to zone and the direct connection between movement and buildings is rarely acknowledged. This is, in fact, the direct link between Urban Development (Architecture) and Transport Engineering.

#### *Central Business Area*

The main objective of the development of Singapore CBA is clearly based on economic growth. The URA Sale of Sites Programme played a dominant role in urban redevelopment in the Central Area. Comprehensive development of offices, hotels, shopping centres and residential units were completed through this programme.

It is evident therefore that economic planning appears to be the guiding factor for physical planning. Thus, the emphasis has been on Land Use/Land Value relationship. The relationship between Land Use/Land Transport appears to be underplayed.

The concentration of business activities create periods of peak movements which then lead to congestion. The problem of congestion is a problem of vehicles on roads. To overcome this problem, planning and construction of roads are undertaken. In Singapore however, the development of road network as stated by the Communication Ministry is almost complete.

The key problem facing us today is the peak hour demand for travel to the CBA. Several key junctions in the CBA are already experiencing bumper to bumper traffic. Six years ago road engineers had identified nine key junctions which had reached the limit of saturation (Fig. 1). However Urban Development appears to take place in spite of such analysis. As an example the Orchard Road



corridor is planned to cater to tourists and tourism related trades. This corridor extends through Bras Basah Road (one of the roads identified as congested) into the Marina Centre. This particular corridor crosses the Golden Mile business and commercial corridor at Raffles City. Therefore intensive activities along these two corridors meet at an equally intensive activity generating junction. Raffles City Development (1,200 car spaces) itself naturally adds to the acuteness of the congestion problem. The provision of generous car parking facilities within the CBA has also added to this congestion. Thus, the implications on movements generated and its effects on transport systems become very evident.

### *CBA Congestion - MRT*

The major government investment as an alternative to the motor car is the development of a modern efficient Mass Rapid Transport System. The MRT is clearly a large people mover and at fast speeds. But the MRT is only a part of the commuters movement cycle, and for most people this will always be so. An MRT commuter does require other types of movement to complete the journey from home to work and back (Fig. 2). The motor car, for the time being, is the only mode of transport which does the full cycle of a commuter's movement requirement, ie from home to workplace and back. In addition to this it has the factor of personal convenience of moving in one's own form of transport; a qualitative advantage.

The MRT is only a people mover, which brings us back again to the activities and movement relationship. We do recognise that intense commercial and business activities in the CBA do also require goods and other facilities. The movement of goods, for the time being, takes place on vehicles. Therefore, this will still remain a problem as long as the CBA is a planning entity, in which there is a concentration of commercial activities. Marina South, if developed, as proposed by Kenzo Tange will further add to the quantum of commercial development. The proposed International Exhibition and Convention Centre too, (approximately 3,500 car spaces) would seriously affect traffic flow at Marina Centre, by the movements to be generated by the activities in the Centre. The most recent URA land sale - Orchard Road/Paterson Road site - is another example of urban development which is based on Land Value as opposed to considering Land Use/Transport implications. All these developments when complete will naturally house activities which in turn would generate further increased movement, thus having serious implications on the transport system.

What kinds of transport strategies should we then have? One of the main advantages of "movement" management schemes is that it has the flexibility to minimise or even solve the problems due to wrong physical planning decisions. In urban development should we not consider decentralisation? Is the historic CBA or CBD notion still valid? Should we not exploit the New Town Councils framework and further enhance the HDB total physical environment for the community. The infrastructure is there for the total comprehensive approach. Should we not then explore other areas which could equally provide good prospects for business?

The facility of providing car parking spaces within the CBA need to be seriously reviewed. The total quantum of car parking space now available within

the CBA would indicate one of the main causes for congestion. Once a space to park the car is available, the user will be attracted to use his car. What is important, is to perceive the problem in totality. This inevitably requires looking at the problem comprehensively by treating Urban Development and Transport as one entity. In other words looking at "activities" that are to be generated by urban development policies, rather than providing the activities and looking at transport solutions separately.

Transport Policy and Infrastructure is part of Total Urban Development. Therefore those responsible for Urban Development should also look at transport policies and infrastructure. Transport Facilities, on the other hand, involve Management/Administration and Enforcement. This could be the responsibility of a separate body.

Note: The above points were part of a paper I presented at a Seminar on Singapore: Transport in Transition, in January 1988.

B. *Short Comments on some of the specific topics stated by the Select Committee.*

- (i) "Use of car pricing or a quota system to control the car population."

Yes, but should be such that every family has a right to own a car. As we are now close to reaching 'quality living' owning a car should not be seen as a privilege.

- (ii) "Feeder services from private estates to MRT stations."

Yes, particularly because the MRT line alignment had other technical considerations which now alienates some stations from residential areas.

- (iii) "Evening ALS scheme."

This scheme in the morning was introduced to ease the congestion of commuting traffic to CBA. The scheme has been successful. Therefore it begs the question why in the evening. Surely, if traffic is heavy in the evening (not certainly due to journeys to work) for other reasons, then other measures to curb road usage is desirable - such as increase car parking charges.

With a one-way traffic system in most parts of CBA the evening ALS is questionable. The other paradox is the reduction of the morning ALS fee. Surely a reduction in the fee particularly when standards of living have increased would generate more cars on the road.

- (iv) "Car parking and road pricing charges as a means of regulating road usage."

Seriously reduce car parking spaces available within CBA and also simultaneously increase car parking charges gradually.

The Electronic Road Pricing System should be seriously reviewed. In this case the means may not justify the end.

- (v) "Improvement of bus services."

Yes, particularly, feeder services to MRT stations.

ABDUL H.M. HUSSAIN,  
ARIBA, Dip T.P., MRTPI, MSIP, MBIM  
*Chartered Architect Planner*  
*Vice-Dean*  
*Faculty of Architecture and Building*  
*National University of Singapore.*

Figure 1

## VEHICULAR TRAFFIC CONGESTION

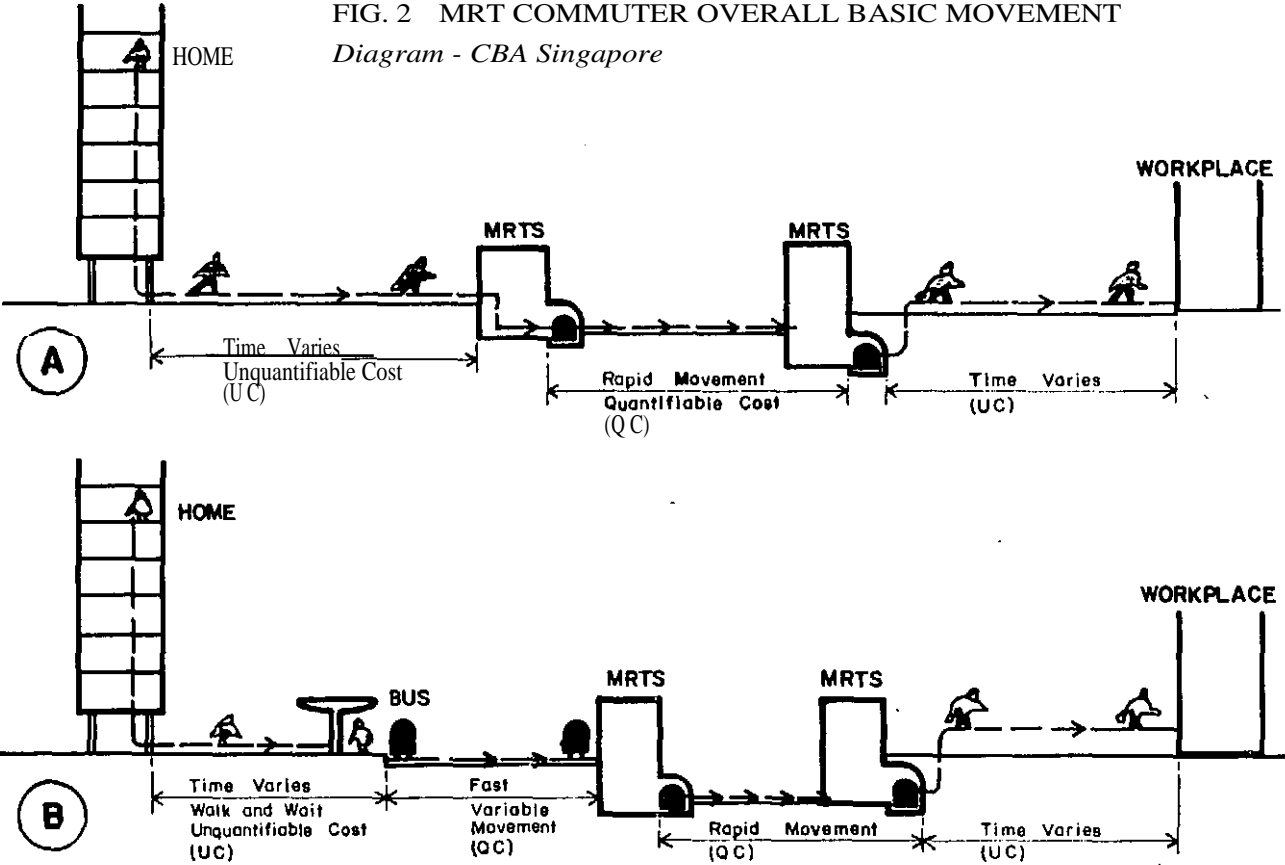
<i>Road</i>	<i>Intersection With</i>	<i>Degree of Saturation % (D. S.)</i>	
		<i>Oct '82</i>	<i>Apr '83</i>
Anson Road	Palmer Road	57	63
	Maxwell Road	66	74
Collyer Quay/ Shenton Way	Finlayson Green	58	60
	Maxwell Road	65	75
Robinson Road	McCallum Street	50	51
	Cross Street	62	75
	Cecil Street	BTB	BTB
Orchard Road	Grange Road	83	84
	Killiney Road	BTB	BTB
	Clemenceau Ave	BTB	BTB
	Dhoby Ghaut	BTB	BTB
Bras Basah Road	Bencoolen Street	BTB	BTB
	Victoria Street	BTB	BTB
	North Bridge Road	BTB	BTB
	Beach Road	BTB	BTB
Stamford Road	Beach Road	82	87
	North Bridge Road	82	69
	Hill Street	BTB	BTB
	Bencoolen Street	BTB	80
Bencoolen Street	Middle Road	BTB	BTB
	Bras Basah Road	BTB	BTB
North Bridge Road	Middle Road	63	72
	Bras Basah Road	74	79
Beach Road	Middle Road	42	55
	Bras Basah Road	BTB	BTB

*Key*

BTB = Bumper to Bumper

Source: The Sunday Monitor - 27th November 1983.

FIG. 2 MRT COMMUTER OVERALL BASIC MOVEMENT  
*Diagram - CBA Singapore*



## RESPONSE TO THE SELECT COMMITTEE ON TRANSPORTATION

### *Ref MRT*

1. The Mass Rapid Transit System (MRT) should form the backbone of the transportation policy with extensions of the system to Changi Airport, Woodlands Checkpoint and Marina East.

2. Research has shown that passengers are unwilling to walk in excess of 450 metres to an MRT station. There should therefore be an intensification of feeder services including:

2.1 *Feeder bus services.*

2.2 Personal Rapid Transit systems (PRT) which feed into the main MRT Stations - PRT's have already been proposed and costed by such firms as Alan Cranston Associates which could, for example, connect the SUNTEC development with City Hall Station. If this is not done, SUNTEC will create further vehicular congestion in the downtown area.

2.3 Improved pedestrian access routes. Provision of shaded verandah ways and tree lined routes.

2.4 Development of Electric "Carts" to serve MRT Stations. A modern version of the Tri-shaw.

2.5 "Park and Ride" facilities at MRT stations eg. Buona Vista with all-day car parking facilities.

### *Ref Vehicular Traffic*

3. Singapore could develop a range of small electrically driven/solar powered vehicles to replace the largely inefficient petrol driven cars. Indeed the country could become a research leader in this form of transport employing a power source which does not deplete non-renewable energy.

### *Planning National Concept Plan*

4. Halt the building of further New Town which increases the need to travel, depletes energy resources and encourages motor car usage.

Concentrate future development to house the projected 4 million population in the Marina South and Marina East area. Intensify development in existing downtown/inner urban areas.

5. Introduce Water Taxi Services in Marina Bay and Kallang Basin and serving the East Coast as development in these areas makes it financially viable.

ROBERT POWELL.

The formation of monopolies is a result of the approach to solving transport problems. Thus there has been little choice and the mechanism therefore has not been able to manifest.

The monopolies created are:

1. SIA - the National airline.
2. SBS - the bus services.
3. TIBS - commuter transport.
4. NTUC - taxi services.
5. MRT.

As such these organizations have had supreme say in all matters pertaining to their proper administration and running. The danger of bureaucratic practices emerging is a real threat. Consumers have no choice but to adhere to their bidding. Pricing policies are internally generated and not always market-oriented. There can be no denial that a monopoly situation exists. From time to time, public relations exercises are conducted to tell the people how efficient the organizations are and how lucky we are to have them. These are for their benefit. But, the question that remains unanswered is: 'How are we to compare prices and efficiency when there is really no competitive situation to compare with?' And whether these organizations are running at optimum cost-effectiveness. We can but take their word for it.

SIA - There is no alternative airline to compete with. SIA have the catering franchise, exclusive air-rights etc. But, does the general public benefit? The majority? I think not.

SBS - SBS emerged as an amalgam of small Chinese bus companies. Tay Koh Yat, Hock Lee Bus Co, Keppel Bus Co, Green Bus Co etc. Now under this sole bus company, the public has no way to compare how each bus company can offer better services. More and more tasks are passed over to the passengers. With the introduction of 'OMO' passengers must have the correct change. The onus is on them to have the correct change ready, or lose what is in excess. In terms of providing feeder services, SBS is not keen as it does not make economic sense. The solution to this is to allow an alternative bus company formed on lines where serving the public needs can manifest. These companies should operate different routes, worked out by them (very much like the way hospitals are being decentralized) eg. GH, NUH etc. This way the public is given a choice. Free to choose whichever can serve them best. Singaporeans and others are intelligent in shopping, they ultimately know what is best for themselves. At the moment some of the routes planned by the SBS authorities are not very convenient as they seem to take one on a round trip before the destination. This is not only time consuming, but travellers have no choice but to pay for the extra fare stages.

Buses seem to be designed for the healthy and fit. Steep steps make it a very difficult exercise for the old, handicapped and ill to board a bus. Airport buses have lower floorboards which only necessitate the climbing of the step. Provision for loading and unloading wheelchair bound people can be a step towards allowing these patients to ride on buses. But of course this will not be seen as economically

viable. I remember in the early days when there were in existence more than one bus company, the increase in fare of say the STC, produced a hue and cry from the users. Now when SBS increases its fares, they are justified well before by a barrage of public explanations as to their justification and all public objection is ignored. Singaporeans have lost the art of protest, since SBS has come into being with all its attendant synergetic management benefits of a streamlined and large scale economy and organizational advantage, fares have only gone up, while service has been cut. With the advent of the SBS fleet being converted to a full diesel fleet, the exhaust emission standards are now terrible. Yes, diesel is a more economical fuel, but something must be done about the pollution. These traffic monsters often cut across **DIAGONALLY** in order to get to the right side of the roadway thus blocking six lanes of traffic in the process. They are one of the most obvious creators of the traffic jam. During the peak period, apart from occupying only bus lanes that by the way have been reserved for them they often overtake each other occupying the other lanes. Sometimes six buses pile up on each other and due to their loading characteristics overtake from behind, thus blocking traffic.

**TIBS** - I don't know enough about TIBS to write about it. Except, the introduction of air-conditioning for its buses and that it does not hold the virtual monopoly of commuter routes, other buses can participate in the scheme, preventing it from jockeying for monopolistic control.

**The Car** - It is the very success of the car that now causes it to be continually blamed for traffic jams. Although the car does hold some responsibility for this, they are not to be solely blamed. There are also buses, lorries, vans, pick-ups, motor-cycles etc. Take the infamous Orchard Road jam. All these contribute to its jam. But the most obvious car has always borne the brunt of the blame.

Let us take a level-headed look at the contributing factors of a traffic jam.

### *The Anatomy of a Traffic jam*

Before we look at the anatomy of a traffic jam, we must identify the so called jammed spots. With some time and trouble it may be possible to come up with a traffic jam map. A time-jam map is also needed as the activity and needs of our city develops. Here are the jams that I have experienced:

- (a) Orchard Road, especially
- (b) the approaches to Orchard Road eg.
- (c) Tanglin - from the vicinity of Tudor Court.
- (d) Scotts Road Shaw centre junction
- (e) Scotts Road Goodwood junction
- (f) Tanglin club "u" turn
- (g) Raffles square
- (h) Market Street etc, Shenton Way
- (i) Expressway heading towards city and Rochor
- (j) Expressway heading towards Parking parabole
- (k) Newton Circus

- (l) Pan Island Expressway, Eunos entrance
- (m) Emerging from CTE towards Newton
- (n) Newton circus
- (o) Bras Basah towards Raffles City
- (p) Anderson bridge, City Hall
- (q) Merdeka Highway at peak periods
- (r) Johore causeway both ends
- (s) Clementi, Holland Road junction
- (t) Some stretches of Orchard Road
- (u) near Lucky Plaza, Roadcross at Yaohan
- (v) Cairnhill Road
- (w) Scotts Road towards Newton Circus
- (x) Kallang Stadium during matches
- (y) Kallang Stadium during shows
- (z) Theatres during shows
- (1) Schools during peak periods
- (2) Emerald Hill end of school, SCGS
- (3) PSA Gate 1 and 2
- (4) NUH entrance at times
- (5) Great World towards Orchard Road
- (6) Scotts Road

### *Orchard Road Jams*

Orchard Road is Hotel Row. There is Cockpit, Meridien, Phoenix, Mandarin, Ming Court, Marco Polo, Hilton and Orchard. Hotels generate traffic. Clientele effluent - Synonymous with cars. Tour buses add to demand of road space and these vehicles are not small. Servicing of hotels, bus transport for staff. High ratio customer, staff. Taxis are all needed to serve these hotels. Peak use inducing function eg. wedding dinners, conferences etc. to create peak demand all factors mentioned. Is it surprising that traffic jam originate in Orchard Road?

### *Super Markets, Department Stores, Shops, Tourist Attractions*

Tourist spots Lucky Plaza, Scotts, Cold Storage, Old Fitzpatrick, Yaohan Department Store, shopping are all located along Orchard. MacDonald's Fast foods. Pedestrians no segregation provided for pedestrians. Orchard pedestrian flow conflict with traffic needs. Stop-go lights further exacerbate traffic flow along this main road.

### *Traffic Junctions*

Traffic junctions carry cross traffic. Criss cross Orchard Road. eg. Tanglin junction, Ming Court junction, Scotts Junction, Orchard Link, Cuppage,



Clemenceau, Dhoby Ghaut. Traffic construction due to road works, and diversion and construction.

The Rechannelling of traffic flow eg. the closure of Emerald Hill further exacerbate problems. Introduction of ALS creating jams due to diversion of traffic and disturbing traffic usage due to desire by motorists to avoid payment of \$3 to enter CBD at 7.30 am to 10.15 am and 4.30 to 7.00 pm. Increasing demand at periods that are free from ALS, and congesting roads periphery to the ALS areas.

#### *Approaches to Orchard Road*

Factors affecting traffic —

1. Lights at cross roads
2. Introduction of ALS
3. Pedestrian crossings and no pedestrian segregation

#### *Tanglin - Tudor Court*

Bottle neck of express traffic of high speed. Traffic entering Orchard Road. Orchard Road just doesn't have the capacity to cope with such high-speed volume, coming from Holland Road, Jurong etc, all converging into the city. The speed along Holland Road and Fatter Road is quite high.

Jams in Expressways are due to volume/speed incompatibilities and sometimes due to too many vehicles using the same entrance or exit. This is essentially a bottle neck problem. Sometimes it may be due to accidents or road works. At anytime in Singapore there is always some form of road works going on, pavements are dug up, trees are chopped down roads are diverted or turned the other way around etc. But why blame traffic for this. When you have road works jams are inevitable. We can only lessen them and you can't do much when 4 lanes merge into two with buses and trailer monsters clogging the paths. Driving around snakey diversions also slow down traffic.

I don't have the time to go through the whole list but it can be briefly concluded that there are multi-factors that contribute to the 'jam'.

The other factors that contribute to jams are over provision of land use in relation to traffic infrastructure. Eg. the placement of Raffles City and its attendant traffic demands traffic in an already jammed up road network.

Peak demands also increase traffic flows at certain critical periods:

eg. (a) everyone starts business at more or less the same time.

Peak times 7.30 am, 8 am, 8.30 am, 9.30 am etc.

Everyone ends business at the same time so the peak demands again at 4 pm, 4.30 pm, 5.00 pm, 5.30 pm

Orchard Road is such a popular destination - 'everyone' almost heads for Orchard Road after work. So again peak demands are created at 6 pm, 6.30 pm & 7.30 pm.

Now with the introduction of the evening ALS the new peak period created at 7 pm. Shops also experience slack periods during 4.30 to 7.00 pm. At 7.30 pm everyone

wants to be serviced creating service bottle-necks and car park entrance congestion during wedding dinners and functions. Car Jockeying systems break down, lobbies become congested and over crowded.

### *MRT*

The MRT is supposed to be designed to cater for heavy traffic demands but due to the routing of the rail lines the station stops can only serve HDB estates. Large tracks of private housing have not been serviced. These people have been discriminated. The only way they can make use of the MRT is by walking long distances or paying extra and catch a taxi or feeder bus etc. So on the whole these people still have to depend on the taxi or car if there is no bus connection nearby. But punitive measures are put on the use of the car. These people pay for it, so when they say that the MRT serves the people - it is true only to a certain extent. Large areas of Singapore are not served by the MRT. Handicapped people still find it difficult to travel by MRT, if they cannot afford cars they still have to depend on the more benevolent taxi driver to help them get into their taxis. Many taxi drivers avoid such passengers for it affects their daily taking. Now I hear that taxi fares are soon to increase and handicapped people and old people suffer because Government policy is such that they come down hard on cars and taxis are cars. With our "law of equal misery" - which is often quoted I am afraid the handicapped and the old infirm suffer much more. Healthy young people can always catch the MRT if they are nearby.

Now let us examine how Government control the car population and look at the measures that are heaped upon the usage and ownership of cars.

- (a) High Tax
- (b) Vehicular Tax
- (c) Landed value tax
- (d) Road tax according to CC
- (e) Petrol Tax
- (f) Half Tank rule
- (g) Forced Scrapping system
- (h) Carparking Tax, ALS, Fines

Because of the artificial value of such taxes, workshops charge more for their shoddy service. Insurance premiums for 1st party increase in proportion to this "artificial value".

This could be one of the reasons why people are leaving our country. I have no way to prove this but I think it is a contributing factor.

Finally the realisation that car usage needs to be addressed more than merely car-ownership and why only cars and not other road users. Why are buses sacrosanct? I have seen buses with no passengers plying up and down, buses with a carrying capacity of 45 carrying only 4 or 5 passengers. Is this not occupying valuable road space? Is a surgeon rushing to hospital in his car not important enough for him to have special transport so that he can arrive in good shape to

begin his days work? Should not the need of every citizen be taken into consideration so that whatever transport that he ultimately chooses be catered for wherever possible? This is why electronic road pricing is such a sensible move. Price roads to their demand but reduce tax in general. This I know will never be done - there are no concessions. Additions to Tax are in - refunds are out of the question. Some of our highways are almost empty during off-peak periods. We do not get refunds for using them during off-peak periods. I cannot but suspect that most of the taxes levied are "income generating" and I think not as it is often quoted, to control congestion. It has been shown that congestion is due to human needs problems and human behavioural patterns. The use of car is not the only cause of traffic jams.

To a busy housewife the car is an indispensable tool she has to fulfil her daily 'mile long list of chores' eg. send children to school, go marketing, fetch child home, fetch child to Ballet, to music, to Chinese lessons, to Karate class, to ECA to sports etc. To do charity to shop to bring sick children to clinic or hospital etc. Rob her of the car and she is grounded and becomes less productive.

The housewife is the most long suffering person and she sacrifices the most for the family, imagine her doing all this by bus or MRT, which she sometimes is forced to and standards suffer. So our government encourages us to have 4 children - and cope without a car. If you support 4 children you definitely cannot afford a car at today's prices (artificially kept high by our taxation) so families still buy cars but dispense with children, convenience prevails.

What is needed now is for government to approach this traffic congestion with more understanding and I am sure the Singaporean citizen will rally to their support. But at the moment the minister for transports motto of "Law of equal misery" breeds further cynicism from the knowing public - we are not stupid. Why don't people give up their cars and go by MRT? Of course they did it for show at the opening. Now they still arrive in limousines at functions during peak periods like any other citizen sensibly would so why try to convince us we have to give up our cars? I must shamefully admit that I drive one of those 'things'.

The solution to the long term problem. Cater for needs, maximise the use of what we have. Scrap the 'scrap car' rule (scraping a car in 10 years is a waste of National assets. It also enriches government unnecessarily. Car Taxation forms the 3rd largest revenue earner. Cater to the needs of the people - don't punish and introduce punitive legislation all the time.

People need to use cars. Let them use it. Improve the quality of bus travel. Control the speed of highways especially if they unload into the innercity systems which cannot cope with the volume and speed of 6, 7, 8 and 9 lanes of traffic converging into a 3 lane system of 25 km/h.

Size roads carefully to achieve balanced flow. Introduce staggered time for office work. Encourage the "home office" via computer, telephone, teleconferencing fax information.

Introducing electronic banking, shopping transaction, home delivery (good example is pizza delivery) using motor cycle power (no fuss).

Don't have hang up about punctuality - practice staggered time - like the Germans. Stress on productivity.

Prime time congestion inevitable. Decentralise high rise dense development. Concentration into one area creates peak demands.

Introduce electronic speed advice indicators. Collect toll at congested areas. Supervise traffic by radio and close circuit. Have traffic office keep computer updated traffic data with real-time traffic flow input via sensors in road system. Transmit information to road users by radio.

Co-ordinated traffic control systems and flow inducing conditional driving. Introduce route planning and network advice by broadcast. Have staggered starting times for large functions (eg. working in conjunction with traffic police).

Allow for road works and diversions which create temporary distortions. Singapore is a great city so let us not spoil it with too many rules and regulations. Solve the problem of traffic lights and crossings, use creativity in solving solutions instead of the "big stick".

JACK TAN

---

## Paper 30

From: Dr Henry Fan, Mr Piotr Olszewski,  
Mr David Turner & Mr Tan Yan Weng,  
School of Civil and Structural Engineering,  
Nanyang Technological Institute,  
Nanyang Avenue,  
Singapore 2263.

Dated: 7th October 1989.

### SUBMISSION TO THE SELECT COMMITTEE ON LAND TRANSPORTATION

#### INTRODUCTION

1. The land transport system in Singapore is one of the best in the world for a major city. This is due in large part to, the emphasis which the government places on land transportation through planning, capital investment in the transportation infrastructure and various traffic restraint and management measures to control traffic. However, some of these measures are not without significant consequences.

2. For example, the restraint of car ownership does not fit in quite well with the Government's announced goal of attaining a standard of living comparable to that of the developed countries such as Switzerland by the turn of this century. As people earn more money and look for a higher standard of living, the acquisition of a car for personal use is one of the first items that comes into their minds since most people are already home owners. It is difficult to reconcile the exhortations to people on the need to work harder with the policy which in effect tells them that they cannot have what they worked hard for.

3. It has always been assumed that car ownership affects traffic congestion, that Singapore cannot afford to have traffic congestion, and hence the need to curb car population. It is true, to a certain extent, that car ownership has an impact on traffic congestion, due to the usage of cars during peak periods. But car usage is not likely to cause problems if it takes place during the off-peak periods. So far, no one really knows how severe is the impact of car ownership on congestion. Without this cause-and-effect relationship, one would not be able to judge whether the measures to curb car ownership are the most effective ways to deal with traffic congestion.

4. The above is not to say that one should relax or do away with the restraints. Rather, it indicates there is a need to have a better understanding of the implications and effectiveness of the various measures. This will provide the decision makers with better insights and hard facts in their evaluation of alternative schemes for implementation. It will also allow the adopted measures and their effects to be explained clearly to the general public, with solid supporting data accompanying the logic behind the adopted policy.

5. In this submission, the objectives of a land transport policy are put forth together with some suggestions on measures that could be used to achieve these objectives. At the same time, the types of studies that could be pursued to gain better insights into the effectiveness of some of these measures are also mentioned.

## OBJECTIVES OF LAND TRANSPORTATION POLICY

6. The basic objectives of any transportation policy are to provide transport facilities and services that will enhance accessibility to land parcels and mobility of the citizens. This may be taken to mean the transportation network should have adequate coverage and sufficient capacity to meet the needs of the people and economy. Cost-effectiveness and environmental compatibility also have to be included among the objectives. Protection of the environment from the negative impacts of traffic is especially important in urban areas.

7. It should be made clear here that no urban transportation system anywhere in the world is designed to be free of congestion at all times. This is for the simple reason that if such a facility were built, it would be underutilised most of the time and hence would not be an efficient way of spending public funds - there are always other public projects which could make better use of the funds. All transportation systems are therefore designed to allow a certain amount of congestion during the peak periods, so that most of the time the facilities would have reasonable levels of usage. Consequently, one should not aim for "free-flowing" traffic all the time in urban land transport planning.

8. The road network in Singapore is quite comprehensive and provides good accessibility. Most of the roads are also relatively uncongested. The bus services also provide adequate coverage but schedule adherence can still be improved upon. The MRT system is comfortable and efficient, but coverage is limited and access to the stations can be a problem. In order to maximise the social benefits and economic efficiency of the system in the future, clear principles of the transportation policy need to be established. Once thoroughly discussed and agreed upon, these principles should be applied consistently to the management of traffic, parking and public transportation. Clear communication of the policy objectives to the public is essential, as all the transportation management measures tend to benefit some users while being to some degree disadvantageous to others.

9. In our opinion, the principles of land transportation policy in Singapore should be:

- (a) Emphasis on restraint of car usage rather than car ownership.
- (b) Control of car ownership (as the last resort) through pricing and not through the quota system.
- (c) Priority for public transport and pedestrians in the central area coupled with restraint of car traffic.
- (d) Maximisation of public transport accessibility to all users.
- (e) Protection of the environment from the negative impact of traffic.

## TRAFFIC MANAGEMENT AND TRAFFIC RESTRAINT

10. To address this issue properly, it is important to establish historical trends in car population and traffic volumes, as well as some basic indices of traffic congestion. This will allow one to have an objective view of the severity of the situation on hand. It will also provide a common ground to examine and evaluate the effectiveness of potential measures to deal with congestion. The impact of

vehicles other than cars (particularly commercial trucks) on traffic congestion should also be analysed.

### *Indices of Congestion*

11. There is no clear definition as to what is "congestion" in Singapore. The situation of "having to wait for three traffic signal cycles" has been mentioned as an indication of congestion at a traffic intersection. This may not be sufficient, and begs the answers to questions such as (a) how often does this situation occur? (b) how many vehicles are affected (i.e. how long does this situation last)? and (c) what is the cause of this situation? Was it due to high traffic volumes; a reduction in road capacity (such as when an expressway ends - for example, the junction at PIE/Corporation Road/Upper Jurong Road); or improper signal timing plan?

12. The usual indices of congestion are average delay per vehicle, queue lengths, or average travel time to cover a section of the road during the peak period. If an acceptable level of average delay or travel time is specified, it is rather straightforward to identify areas with congestion problems. With measures like these, one would be able to see how severe the congestion is, and also evaluate the efficiency of proposed solutions by comparing the reductions in average delay or travel time that can be achieved from the proposals. Of course, which level of average delay is considered to be acceptable will vary from person to person and there is no universally agreed value. It will have to depend on government policy to establish the proper threshold for Singapore.

### *Relationship between Car Population and Traffic Congestion*

13. Although there have been several studies on land transportation in the past, to the best of our knowledge, there was no study on the relationship between car population and traffic levels. Such a study would allow one to gain insights into the effect of car population on congestion levels.

14. Some government agencies do carry out traffic studies every now and then in an attempt to track the impact of certain measures or changes in traffic conditions. However, due probably to manpower and budget constraints, the surveys are normally conducted over one day periods only. In such cases, it is possible that the changes observed simply reflect the normal day-to-day variability of traffic flows. Traffic observations covering many days are needed in order to draw statistically significant conclusions.

15. Take the study of travel speeds during the peak periods in the city area as an example. It was reported that the average speed during the morning peak was 32.7 km/h in 1987 and 32.2 km/h in 1988. It is not obvious that the decrease in travel speed in 1988 was due to higher traffic volumes or due to normal fluctuations in traffic flow, or even due to sampling errors which are inherent in the surveys.

16. In addition, statistics on the historical growth in car population should also be studied with more care. For example, the high rate of growth in car registration observed this year does not appear that alarming if one examines the data from the Registry of Vehicles (ROV) in longer perspective.

17. The records show that there were a total of 486,760 vehicles registered in Singapore in 1985, of which 236,250 are private or public motor cars. The corresponding numbers in 1988 are 491,808 and 251,414, respectively. Thus, there was an increase of 6.4% in motor cars between 1985 and 1988. When one takes into account the growth in population in Singapore (from 2.558 million to 2.647 million, or an increase of 3.5%) during this three-year period, this increase is not so great (about 1% per annum over the population growth rate). Looking at the total number of vehicles on the road, there was a much smaller increase of 1.0% over the same period (or 0.3% per annum).

### *Car Usage*

18. This is one area where there is a consensus. The Government's plan of introducing Electronic Road Pricing to curb road usage is one that almost everyone agrees with. Ideally, a motorist would be charged for the use of road capacity according to the congestion levels on the roads he travels. Even in a more simplified form, one would still be able to vary the pricing scheme for different times of the day, length of journey, area of travel, and type of vehicle used. It would still be more equitable than increasing charges on car ownership, petrol excise tax, or imposing per kilometre tax.

19. In order to control the congestion effectively, the system should consist of multiple cordons rather than a single cordon like the present ALS. This would make the charges dependent on the length of journey and motivate the long-distance commuters (who create most congestion) to switch to public transport. Motorists should also be charged for passing cordon lines in either direction. This would eliminate an apparent contradiction of the present evening ALS: charges are applied to the less congested inbound direction and not to the more congested traffic leaving the CBD.

20. In implementing the Electronic Road Pricing measure, one must ensure that those who have a need to go into the congested areas have an alternative in the form of a reasonable public transportation service.

### *Use of Commercial Vehicles*

21. Because of their sizes and legal speed limit imposed on them, commercial vehicles take up more road space (and hence capacity) than passenger cars and motorcycles. This is particularly true on expressways and major arterials. To alleviate congestion in the CBD, one measure would be to prohibit the commercial vehicles from entering congested areas during the commute periods. There is no obvious reason while such vehicles have to enter the CBD during the peak. Some may argue that this may affect the development of the economy. Perhaps a study can be undertaken to investigate its impact on the economy. However, it is thought that the impact would not be significant since a number of large cities do have such regulations.

22. It seems that commercial vehicles also contribute to congestion because in many cases they are used as a substitute for passenger transport. Truck drivers park these vehicles near their homes and drive to work in the morning, thus



contributing to congestion while not carrying any load. A possible solution to this problem is an operator's licensing system which would require overnight parking at the depot in an industrial estate and not in residential areas.

### *Parking*

23. Another traffic restraint measure is to limit parking opportunities in congested areas so as to discourage vehicles from going there. At present, relatively high parking standards for new buildings result in attracting more traffic to the CBD and underutilisation of some car parks. Provision of free parking for employees by some private employers also contributes to increased traffic volumes. A lower parking standard can be suggested for the CBD area.

24. Instead of providing more car park spaces in the central area, parking should be made available at outlying MRT stations (this suggestion is further elaborated under "public transportation" below). Although valuable, land in the vicinity of these stations is certainly less costly than land in the CBD. Every car parked there will mean one car less on the road in the central area. Suggestion of providing car parks at MRT stations applies only to those outlying stations which are not in HDB new towns (e.g. Buona Vista, Lakeside, Bishan, Yio Chu Kang).

## **PUBLIC TRANSPORTATION**

25. In order to maximise the use and competitiveness of public transport, continuous efforts should be made to improve its accessibility and riding comfort. The proposed better coordination of MRT and bus systems by means of through ticketing and feeder services, is a step in that direction. However, more could be done to facilitate access to MRT stations for pedestrians and motorists. The objective should be to minimise the effort required for getting to the station entrance and for making train/bus transfers. Better integration of some stations could be achieved by providing pedestrian malls, underpasses, bridges and direct links to buildings. The principle of priority for public transport and pedestrians over car traffic should be applied in all design aspects and traffic management schemes in the CBD area.

26. It is difficult for bus services to compete with the MRT system in terms of comfort and reliability because the latter has air-conditioned facilities and exclusive right-of-way. On the other hand, the fixed guideways of the MRT means that the system can only serve a limited number of locations. Therefore, the sensible policy is for the two transit systems to complement each other rather than trying to compete for passengers. Efforts should be aimed at reorganising the bus service networks to serve areas not covered by the MRT routes, and to provide as many feeder services to MRT stations as practicable.

### *Provision of Parking Spaces at Outlying MRT Stations*

27. In most cases, the passenger traffic volumes which can be generated from the private estates would not be high enough to justify the costs of operating a reasonable feeder service between the estate and the MRT stations. Either the fares would have to be set fairly high, or the frequency of service would be so low

that very few customers would be attracted. If the feeder service runs through a longer route covering a larger number of private estates so as to widen the market area, the resulting travel time will be too long to attract many passengers. There is also the question of what to do with the buses during off-peak hours.

28. It appears that the provision of car parks at outlying MRT stations would be a better method of encouraging use of public transportation. One can argue that the cost of land is too high for the provision of car parks. But if the Government policy is to encourage public transport usage, then this should be treated as an infrastructural investment for the good of the country in the same way as water supply, electricity, and indeed, the MRT system itself. The investment will mainly be the capital costs, the revenue from car parks should offset any operating and maintenance costs easily.

## TRAFFIC AND THE ENVIRONMENT

### *Limiting air pollution caused by road traffic*

29. High cost of owning cars in Singapore can be seen not as a penalty but as a price motorists have to pay for occupying space and polluting the environment. Thus, the car pricing mechanism can be combined with the objective of environmental protection. This could be achieved through the following means:

- (a) Introduction of strict emission standards for new cars in line with those adopted by the US and the European Community. This would require fitting new cars with catalytic converters.
- (b) Imposition of higher road tax on old cars which do not meet new emission standards.
- (c) Introduction of lead-free petrol and imposition of higher tax on old cars which use leaded petrol and create more pollution.

30. As a result of these measures, the price of new cars will go up (cost of cleaner exhaust systems), the tax on old cars will be higher and at the same time there will be less air pollution.

### *Traffic impact of new development*

31. Impact of traffic generated by all proposed major development on existing road network should be assessed as part of the building approval process. In this respect, a new legislation is needed specifying the requirement for "traffic impact study" for new development, similar to those required in UK and USA. Such a study includes projections of traffic and parking generated by the new development, analysis of impact on existing/planned roads and the environment (congestion, safety, noise and air pollution) as well as proposals for the necessary facilities and improvements. It should be the duty of the developer either to prove that the proposed building will not create traffic congestion and environmental problems - or to provide plans for the changes required.

## EDUCATION OF MOTORISTS AND ENFORCEMENT OF TRAFFIC REGULATIONS

32. Quite often, the inconsideration by some motorists caused some amount of congestion to others. It is not uncommon to see vehicles stopped or parked indiscriminately along major roads where it is unlawful to do so. This is particularly so with taxis and commercial vehicles. Such behaviour reduces road capacity and causes congestion and delay. Motorists have to be more civic-minded. At the same time, offenders should be dealt with by law enforcement officers. It does appear that such behaviour takes place because the offenders are seldom caught.

DR HENRY FAN,  
*Associate Professor.*

MR PIOTR OLSZEWSKI,  
*Senior Lecturer.*

MR DAVID J. TURNER,  
*Senior Lecturer.*

MR TAN YAN WENG,  
*Lecturer.*

---

## Paper 31

From: Singapore Democratic Party,  
Block 108,  
Potong Pasir Avenue 1 #01-496,  
Singapore 1335.

Dated: 20th September 1989.

It is with pleasure that we submit this letter for your consideration. We hope that our contribution will assist in shaping a long term policy that keeps traffic flowing, allows our citizens comfortable and quick commuting, allows car owners to enjoy the pleasures of driving and minimises the taxes and charges needed to keep the roads clear.

We understand that considerable discussions have already taken place. Many members of the public, commercial interests, the press and the Ministry of Communications and Information have given their views. Many insights have been gained. Yet, we are perturbed at the lack of clarity and vision. At the end of the day, many people are still confused about the parameters of the problem and the options available to deal with it.

We have taken, as you will note, a wider look at the problem. This letter, also, is neutral. Unlike car owners and commercial interests, we have no axe to grind. Even the Ministry which prides itself on taking a disinterested attitude has policies to defend.

This letter will at times be critical of the Ministry. This must be so since the Ministry has much to account for.

Many members of the public have spoken and written to us at length. We report their experiences. We believe that road users' feedback is critical to public policy. Our Land Transport Policy cannot be served merely by "experts" who come out with "rational" proposals which leave out the human dimension.

The SDP members who prepared this letter will be happy to discuss our views with the Select Committee. The time has come for a basic and complete review of our Land Transport Policy. Possibly, no such integrated policy exists.

JIMMY TAN TIANG HOE,  
*Assistant Secretary General.*

KWAN YUE KENG,  
*GEC Member.*

# LAND TRANSPORT POLICY

## Contents

Introductory Letter

Contents page

Executive Summary

(1) Purpose of this Report

(2) Scope

(3) Issues

(a) Road Capacity

(b) Car Buying Capacity

(c) Demographics

(d) Zoning Patterns

(e) Alternative Transport

(f) Segment Analysis

(g) Technology

(h) Roadworks

(i) Conclusion

(4) Principles

(5) Recommendations

Appendix	A	Car Registration 1980-1988
	B	PIE Bus Express
	C	Feeder Services
		(a) SBS M1
		(b) Private Service
		(Clementi MRT/Sunset Way)
		(c) The Ideal Feeder service
	D	Demographics
	E	Congested Areas

## EXECUTIVE SUMMARY

The SDP believes that no hasty or drastic car control measures need to be taken. Road capacity is finite but the growth of the car population will slow down. The car population may reach the critical level in another 10 years. However, we feel that usage measures will suffice to keep congested areas from becoming impassable.

Curbs on car ownership tend to be ineffective because there are loopholes. In addition, ownership curbs have inequitable and inefficiency consequences.

Usage measures, on the other hand, can be applied selectively to different road users and specific congested areas. Usage measures if intelligently applied can have maximising effect without negative side effects. Thereby, minimising the inconvenience and cost to road users who do not use congested areas.

At present, public transport is not an attractive or viable alternative to most car owners. Road congestion may build up. However, we feel that the problem is to some degree self correcting. As the roads become congested, inconvenience for road users will rise. The government will also raise usage charges. Therefore, public transport will appear more viable to car owners.

We believe strongly that a realistic Public Transport Policy must integrate various elements like technology, zoning patterns and roadworks regulations. It would be futile to increase usage curbs without setting a limit on the building density of congested areas.

In the long run, Singapore must decentralise its commercial hub. We cannot continue to add more commercial activities to the CBD because the access roads are finite. In the long term, technological developments will ease the communication problems arising from decentralisation.

An integrated transport policy must be formed with the cooperation of the numerous government departments who have an impact on road usage conditions. They must act in unison and not at cross purposes.

We believe that in the past various measures and policies of the Ministry have failed or have had undesirable side effects because it had taken an aloof "experts" approach to problems. The Ministry must build its policies in consultation with the public to avoid mistakes and to gain the support of the masses. We have suggested certain principles to guide the imposition of measures to curb congestion. We have made a number of recommendations to improve our transport policy.

In the long term, Singapore must decentralise away from congested areas. The government must continue to improve public transport, in general, and specifically for car owners. We recommend that the ARF should not be raised until 1995 when a review should be made of the growth rate of cars.

In the short term, we feel that the parking charges for outlying HDB estates should be dropped to \$25/month. The Electronic Pricing System should be introduced as soon as possible after a careful study of which roads should be put under ALS.

## LAND TRANSPORT POLICY

### 1. *Purpose of this Report*

As a political party, we feel compelled to participate in this national dialogue. We do not believe that this is merely a logistical problem to be solved by "experts" from a Ministry. Road congestion is a community problem. The way we tackle the problem affects the way of life of all Singaporeans in one way or another.

The performance of the Ministry of Communications and Information has been less than satisfactory. The many public reservations on the punitive measures mentioned by the Ministry does not reflect the unwillingness of Singaporeans to pay the price of using our roads. Rather, it reflects a lack of confidence in the experts from the Ministry.

Solutions offered by "experts" have often failed in the past. Fringe car parks were the alternative when the ALS was introduced. But, it failed because the bus services offered were unacceptable to car owners.

PARF policy has in part failed because in the long run it encourages the growth of cars. All cars which are less than ten years old have a premium resale price because of its PARF value. This PARF value tends in the long run to increase in value as car prices increase. Therefore, the purchase of a car has served as an investment opportunity or inflation hedge.

Lately, the Area Licensing Scheme has been extended to evening hours. However, congestion on ring roads has dramatically worsened. In controlling congestion along one artery, we have damaged the flow of traffic on several others. "Experts" are often hindered by the lack of data or being given too narrow a scope to work within.

The ALS has not been completely satisfactory because it fails to discriminate between single entry users and multiple entry users. Alternative public transport is not available for many car owners.

The ALS has caused great inconvenience to many people. In order to avoid the morning ALS, some businessmen tend to go to work after 10.15 am. The afternoon ALS has forced some parents to return home later.

Future remedies to our road congestion problem must take into account the conflicting interests of various parties. Our Land Transport Policy must cover a wider scope to be effective.

We must reconcile the conflict of interest between owners of commercial and residential properties. Between inner zone and rural users. Between middle class aspirations to own cars and road usage efficiency. Surely a decision to abolish the PARF must have economic implications.

Under the Ministry's unilateral decision making, public morale has been poor. Is it any wonder that our best people are emigrating? If our Land Transport Policy does not have general support, the high transportation costs will be a factor in the rate at which our people emigrate.

The SDP hopes that this Select Committee will take a total community approach to the problem. That it will take a fresh and comprehensive look at the problem. This is the only approach that can build a consensual Land Transport Policy that has the confidence and support of the public.

## *2. Scope*

Our scope will include the impact of technology, zoning regulations and the pricing of public transport. We will identify some traffic arteries which require immediate attention. We will differentiate car users into segments for analysis. We will comment on the adequacy of existing bus routes and the opportunity offered by the building of the MRT system. We must comment on the car ownership/usage issue.

In the last ten years, the reorganisation of the public bus services and the building of the MRT has greatly improved the quality and coverage of public transport. Non car owners have greatly benefited. It is unlikely that any major systems improvement can be made to further benefit non car owners.

Therefore, it becomes quickly apparent that any discussion on today's Land Transport Policy must focus on PRIVATE CAR USAGE. Usually private cars are used on a one person/one car basis. This seems to be a relatively inefficient mode of transportation. Should priority be given to commercial users?

Our report will therefore concentrate on the car owner/user and not the non-car owners. We hope to identify the extent to which car owners can be enticed to use public, transport. At any rate, we hope that our discussions will throw some insights onto the issues and the difficulties.

## *3. Issues*

(a) Road capacity: We accept the assumption of the Ministry that no significant expansion of our road system is possible. We note that substantial road widening has already been done on congested roads. It would be undesirable to attempt to increase the width of our congested roads. The noise and air pollution from the increase in traffic will cause serious discomfort to residents living in the area. Wider roads will lead to more pedestrian casualties from accidents.

Singapore must therefore make the best use of the existing roads for the next 20 years. While efficiency can be increased by using traffic light management and flyovers to increase the flow of traffic, Singapore will sooner or later have to ration the use of its roads.

We have considered suggestions of using helicopter shuttles and boat ferries to supplement our transport system. However, these modes of transport will not be viable unless roads are so badly congested that they are almost impassable. In the meantime, we will have to try and ensure that our roads remain passable.

(b) Car Buying Capacity: We must accept that in the long term the car population will increase as Singapore continues to prosper. Inevitably, high GDP per capita means high car density. Unless, measures are taken to curb car ownership.



The Ministry has suggested that 350,000 cars might be the maximum that Singapore can manage. At 10% growth rate, Singapore will reach its 350,000 limit in 3.5 years, we believe that the Ministry is being pessimistic. New car prices have risen over 50% since 1986. The 10% growth rate cannot be maintained in the long run. In 1988 and early 1989, the car population grew alarmingly. But there were special factors.

During the recession years of 1985 to 1987, the car population grew by only 3,000 per year compared to 16,000 per year during 1982/1984 (Appendix A [page B 73]). The 7% to 10% surge in the last 20 months is temporary. In addition, car manufacturers introduced many new models which increased sales. Also, expectations of higher ARF charges caused speculative buying.

Car prices are now so high that the ARF sales of new cars cannot be sustained at the current high rate. Commercial vehicles which do not pay ARF charges grew by only 4.5% during the last 2 boom years. If car usage charges are increased and effectively applied, Singapore's car population is likely to grow by only 3% to 4%.

Assuming a 3.5% growth rate, we will not reach the controversial 350,000 level till 2,000 A.D. So, we should not panic and introduce any car control measures in haste. Granted that Singapore's road system cannot be substantially expanded. We are not yet near a breakdown of our traffic flow. Rather, there appears to be congestion at certain areas and at certain times only.

We must intelligently look at *specific solutions for localised congestion*.

The appropriate response is to introduce usage control measures to tackle specific problems. These measures should be carefully thought out to avoid a repetition of the Evening ALS mistake. It makes no sense to increase car ownership costs drastically because it will not ease congestion in affected areas.

(c) Demographics: Singapore's population is aging. At present there is a bulge in the 25 to 35 year age groups (Appendix D [page B 78]). These are the Singaporeans who are likely to be first time car owners. As the percentage of Singaporeans in this age group declines, the car buying capacity will decline. The data suggests that the growth of our car population may continue to be strong for another 10 years. But, will eventually, decline.

(d) Zoning Patterns: A comprehensive Land Transport Policy must include a study of our zoning patterns. The Chief Planner at the Ministry of National Development administers the Master Plan. This Master Plan determines the density of building and the type of activity in various areas.

It is our perception that the congestion in the Beach Road/Shenton Way/ Orchard Road area has worsened dramatically in recent years. We believe that redevelopment within this area has greatly increased the level of business activities. There are more offices and shops. More employees and visitors now congregate in the downtown area. Result? More congestion.

The creation of Marina City has accelerated this centralisation. Ironically, Marina City is so large and self-contained that it could survive by itself at a location further away from downtown. Yet, it has been placed adjacent to the most

congested area of Singapore. Commuters travelling to Marina City from the landward side must pass through the downtown area.

Nowadays, Bras Basah Road seems to be crowded from 10.15 am to 10 pm. The development of the Civic Centre District will only add to the fierce congestion. We wonder whether the Chief Planner takes traffic density into consideration when he approves development projects. It seems pointless to overload access roads to the extent that draconian measures must be enacted to keep traffic flowing.

Is it possible to decentralise away from the downtown area? In the past, various satellite and alternative commercial areas have arisen. Satellite commercial areas like Toa Payoh Central are not direct competitors to the downtown area. They serve the local area. Only small alternative commercial areas have developed. For example, Punggol seafood restaurants and Marine Parade entertainment lounges. There is no other area that can rival Orchard Road for shopping or entertainment.

Decentralisation has never been necessary because the building density downtown has steadily increased to accommodate new tenants. Access roads like Bukit Timah and Holland Roads, and the ECP have been improved to provide better traffic flow. However, there must be a limit to the increase in downtown density. It seems that we are finally fast approaching the limit.

We believe that any successful Land Transport Policy must control building density in congested areas. The government, after consultations with interested parties, must determine whether we have arrived at *the limit*. If the Chief Planner should put a ceiling on the increase in building density, it will have the advantage of forcing developers to build alternative commercial areas away from downtown. Projects like Marina City are large enough to be self-contained. Though it will be difficult to find a large enough site in the built-up areas.

At this point, we must emphasize that residents living in a mixed residential/commercial zone must be protected. Many residents living near Mt. Elizabeth Hospital have complained of the congestion from the hospital's commercial traffic. Many were infuriated when the hospital was allowed to build an annex.

Fortunately, the Chief Planner has refused to allow an amusement park to be built at Bideford Road. Apparently the intrusion of commercial interests has prompted a review of Orchard Road residential areas. Hopefully, other residential areas will benefit from the inconvenience and cost suffered by residents. The Cairnhill ALS will be extended to cover the Singapore Chinese Girls School, estates like Hillcourt and Silver Tower, and the entire Emerald Hill area.

(e) Alternative Transport: Financial disincentives to force car owners to use public transport will not work if the alternative transport is inconvenient. Can our public transport system serve the car owner? Can it be improved to entice car owners?

The BUS system has improved over the last ten years. In general, the networks of SBS, TIBS and CSS buses succeed to some degree in serving non car owners. There are of course complaints.

Many people complain that travelling trans island East/West takes a long time. We notice that there are no bus services that travel extensively along the PIE. Therefore, travel time East/West is long since trunk roads converge on a southern hub.

The creation of New Towns means that the population is being dispersed more widely. There is greater East/West mobility. We believe that a PIE Express service (Appendix B [pages B 74-75]) is badly needed. This express service will take pressure off local bus services and cut travel time East/West for non car owners.

This Express service is needed to get car owners to stop driving on the PIE. At peak hours, the PIE is very badly congested. Much, worse than the ECP at some point, usage control measures must be introduced to keep PIE traffic moving. An efficient Express bus service must be available.

We have received a complaint that the SBS no longer runs any buses from Lucky Plaza/Orchard Road to Collyer Quay. City Shuttle Services buses cover this route most of the day. However, when CSS buses do not run bus passengers have limited choice. They either use the single TIBS 850 service or pay more to use the MRT.

Undoubtedly, SBS was motivated by economic considerations to drop the route. However, we are forced to wonder about the accountability of the bus companies to public authority. Perhaps the Public Transport Council could open its reviews to the public. So that the bus companies rationale for changing its routes could be examined by the public.

The MRT represents a vastly under-used project. Built at a cost of \$5 billion which cannot be recovered, the MRT is only heavily utilised for 1½ hours in the evening peak period. Yet, it is crucial for the MRT to increase its load since the marginal cost of carrying passengers is negligible.

The other interesting feature of the MRT is that it runs on its own tracks and does not contribute to road congestion like electric trams. Hence, many people have suggested that a MRT/bus system should be developed to get car users out of their cars.

The idea is logical. The under utilised MRT can move a large number of people quickly and comfortably over long distances. Thereby, taking pressure off the bus system in its first phase and the road system in the second phase. As long as there are light buses to quickly whisk the commuter from the MRT station to his private housing estate.

Unfortunately, early experiments have been unsatisfactory. The experiences recounted in Appendix C [pages B 76-77] suggest that MRT/feeder services are still not popular. Feeder services can succeed only if the estates are carefully selected for remoteness and large numbers of marginal car owners who are willing to switch. Unless the cost of car ownership and usage rises dramatically, feeder services will not become a major part of our transport system. The convenience of car ownership at this time is more important than the cost savings of public transport.

(f) Segment Analysis: A detailed look at the different types of car users will provide many insights into the difficulty of easing congestion. Different car users respond to car control measures in varying degrees.

There are rural and urban residents. Ironically, the car owning density is higher in the affluent inner areas where public transport is good than in the outlying areas where private transport is more important. People living in Lim Chu Kang, Jurong, Woodlands etc. need a car to do their businesses efficiently. Usually, the outlying trunk roads are not heavily congested.

However, in the densely populated central and southern areas, there is significant congestion as commuters mix with heavy commercial traffic to jam the roads.

Any increase in car ownership charges like ARF or road taxes will eliminate marginal car owners in rural and urban areas. Unfortunately, the urban resident can fall back on strong public transport. The rural resident suffers great inconvenience. Therefore, the use of car ownership curbs will have an inefficient and inequitable effect on rural residents.

It makes more sense to depend on usage curbs to ease congested areas. Rural residents who do not use congested areas are not penalised. Those who do enter congested areas will pay as they go.

There has been a tendency to substitute light commercial vehicles for private cars because commercial vehicles do not pay ARF. This is one of the reasons why large increases in ARF and road tax have small effect on road usage.

We feel that rural HDB residents are being unfairly discriminated against. The HDB charges the same \$50/month for a parking lot in Toa Payoh and Woodlands. Yet, Toa Payoh has dense road traffic but good public transport. We suggest that consideration should be given to rural residents. HDB car park charges in areas like Woodlands, Bukit Batok, Changi, Yishun etc. should be reduced to \$25/per month in view of the low land cost and their greater need for private transport.

There are light and heavy road users. We feel that usage curbs would be more effective in reducing congestion because they are more selective. Car ownership curbs tend to eliminate light road users because it is no longer economical to own a car that is used so little. Heavy users are less affected by rises in fixed costs.

Usage curbs like petrol taxes will force heavy users to pay their way. It will force all users to be more efficient.

Heavy increases in ownership charges will fail to reduce congestion because many heavy users are switching to light commercial vehicles like pickups and panel vans. These commercial vehicles can be used for business and personal use.

We do not believe that it is possible nor desirable for the authorities to prevent private use being made of commercial vehicles. We should depend mainly on usage curbs and better public transport.

At present, many businessmen fear that usage curbs will raise the cost of doing business. We note that commercial vehicles are highly favoured. They do not pay ARF and road taxes are much lower. Commercial vehicles do two or three times the mileage of private vehicles. It can be said that private vehicles subsidise commercial traffic.

The Ministry has identified 17 congested junctions (Appendix E [page B 79]). We note that every junction is severely congested only during peak hours when commuters are going to and from work. We would like to add the central portion of the PIE to this list of bottlenecks. Since the introduction of the evening ALS, traffic on that portion of the PIE has been reduced to a crawl. It cannot be long before it is impassable.

We feel that these congested areas should come under usage curbs. The Electronic Pricing System is very efficient. For example, the EPS is the only method suitable for the PIE. If we attempted to set up toll stations, there would be huge traffic jams at the toll booths.

With EPS, it would be possible to allow an ALS to charge different rates at different times. At present, drivers are attempting to detour around the ALS. Thereby, creating congestion along parallel roads with EPS, it will be easy to apply ALS to the parallel streets. Thereby, making usage curbs truly effective.

Since commuters cause the worse congestion at peak periods, they will have to be induced to use public transport. Most of these commuters are light road users. Unfortunately, these one man/one car road users tend to move simultaneously at the peak periods.

Therefore, it is inevitable that they have to be encouraged to use public transport to get to work. The ALS charge is not effective since commuters only enter and leave the ALS once. Once again, we emphasize the necessity of having acceptable public transport for commuters to switch to.

(g) Technology: In the very long term, technology will provide relief from congestion caused by the centralisation tendency. The advent of Information Technology and artificial intelligences will lower the labour content. Thereby, cutting down the number of employees per office. Skilled white collar workers can do their jobs at home. Offices can be dispersed because audio visual conferences can replace face to face meetings.

In the short term, we can attempt to relieve some congestion by making fax documents as original copies. As long as there is a confirmatory letter by post within a few days. At present, telex messages are original documents but fax messages are not. If the Ministry of Law should quickly make fax messages original copies aforesaid, the amount of messenger boy traffic can be significantly reduced. The commercial sector which has accepted fax technology in a major way clearly appreciates the cost advantages of moving electrical pulses rather than paper copies.

(h) Road works: We have observed that much congestion has been caused by PWD, Telecoms and private contractor road works. We would recommend that non-emergency road works in commercial areas should be confined to evening hours. In dense residential areas, road works should be done only in the day to minimise noise pollution.

(i) Conclusion: We are convinced that various car ownership and usage curbs are necessary. Road capacity is finite while Singapore is becoming more affluent and motorised.

However, we do not believe that drastic measures are necessary at present. Car growth will slow to a steady 3% to 4% long term growth. The crucial point at which Singapore's roads become impassable concern is to control local congestion.

The Ministry of National Development must ensure that building densities are not too high for the road capacity available in any one area. It will be self defeating to overbuild and then impose draconian measures to keep traffic moving. A ceiling on building density in the CBD would help the long term decentralisation away from the CBD.

Usage charges will penalise only those who contribute to congestion. Those who are light road users, live in rural areas and do not use congested roads should not be penalised.

We clearly favour usage curbs because they are selective. Different curbs can be used against specific road users for maximum effect. Car ownership curbs do not solve specific congestion problems. Many people are switching to light commercial vehicles because they are much cheaper.

In the long term, harsh and arbitrary measures may have to be imposed in very congested areas if usage controls fail. For example, private cars could be banned from the CBD, or odd and even licensed cars will be allowed in only on alternate days. **HOWEVER**, we feel that the congestion problem can be self correcting.

It is difficult to get Singaporeans to switch to public transport because the roads are so good it is still more convenient to travel by car. However, we feel that any significant increase in congestion and a rise in usage charges will make public transport more viable for the car owner.

#### 4. *Principles*

The land Transport Policy with regards to private cars should be guided by the following principles:

- (i) There should be a multi-prong approach to control measures. Car ownership curbs should be used but primary emphasis should be on usage control.
- (ii) We should identify specific measures for different users.
- (iii) We should identify the right solutions for specific congested areas.
- (iv) The effects of measures should be clearly understood to minimise inconvenience and cost to the public
- (v) We should implement soft measures before moving on to harsher measures.
- (vi) There must be long term development of alternative modes of public transport.
- (vii) There must be a comprehensive approach to solve the problem of congestion. Many Ministries have a responsibility in the matter.

## 5. *Recommendations*

### *Long Term*

- (i) We must put a ceiling on the building density of congested areas at some point. This is the responsibility of the Ministry of National Development.
- (ii) We must continue to encourage the development of Information Technology and electronic networks.
- (iii) The Ministry of Law should encourage the acceptance of fax messages as original copies.
- (iv) The Ministry for Communications and Information should encourage the development of feeder services by providing consultation advice and perhaps tax breaks.
- (v) From time to time, the ARF and road taxes may be increased. We do not recommend an immediate increase in ARF because car prices have risen 50% since 1986. We suggest a review in 1995 would be appropriate.

### *Short Term*

- (i) As the EPS is implemented in 1993, there should be a careful study to determine what areas should be under the EPS.
- (ii) Changes in roadworks regulations can reduce congestion in areas of heavy traffic during peak hours.
- (iii) HDB parking charges in rural areas should be dropped to \$25/month.
- (iv) The Ministry can learn more about what is going on by conducting dialogue sessions with the public.

*Car Registration 1980 - 1988*

Registration of Motorcar by ARF and PARF			
Year	ARF	PARF	Total
1988	13,844	10,403	24,247
1987	2,052	9,374	11,426
1986	558	6,964	7,522
1985	6,256	6,625	12,881
1984	13,992	6,390	20,382
1983	19,935	8,312	28,247
1982	15,021	13,405	28,426
1981	7,553	13,427	20,980
1980	7,004	21,206	28,210
ARF registration 1985-1987		=	8,866
Average		=	2,955 per year
ARF registration 1982-1984		=	48,948
Average		=	16,316 per year
Scrap cars available 1990-1992 = 48,038			
Ratio ARF/PARF 1988		=	1.33
1980		=	0.33



*Suggested Bus Express Service Along PIE*

Name of Service	:TIBS PIE Express
Type of Service	:Two Express Services, Routes A & B
Operator	:TIBS
Length PIE Route	:30 km
Est Time End to End	:70 minutes
Frequency	:10 minutes peak hour 20 minutes off peak
Fare	:TIBS Scale with air con option

PIE km	PIE Exit	Route A Stops	Route B Stops	Bus Interchange	MRT Nearby
4	Tampines South	Tampines New Town		Yes	Yes
8	Bedok North		Bedok Town Centre	Yes	Yes
9	Eunos	Hougang Ave 3		No	No
10	Paya Lebar		Paya Lebar Road	No	No
17	Toa Payoh	Town Centre	Town Centre	Yes	Yes
26	Anak Bukit	Upper Bukit Timah Road		No	No
28	Toh Tuck		Bukit Batok	Yes	Yes
31	Jurong Town Hall	Jurong East		Yes	Yes
34	Corporation Road		Chinese Garden	No	Yes

*Alternative Means of Travel*

(A) Jurong East to Toa Payoh by MRT requires 16 stops, 35 minutes travelling time and fare of \$1.20.

(B) Jurong East to Tampines by MRT requires 21 stops, 50 minutes travelling time and fare of \$1.40.

(C) Jurong East to Tampines by SBS requires 2 buses, 90 minutes travelling time and fare of \$1.20.

(D) Jurong East to Tampines by PIE Express requires 70 minutes travelling time and fare of \$0.80 (non air con).

### *Comment*

The suggested express bus service will move commuters between points East and West more quickly and cheaply than regular bus services. The MRT may be quicker but much more expensive.

The advantage of this express service lies in the fact that unlike the MRT or a monorail option, it requires no expensive infrastructure and its route is flexible. It makes no significant contribution to congestion along the PIE.

It is rather surprising that TIBS and SBS have not tried to implement a PIE bus service. The creation of so many New Towns means that the population is dispersed more widely. There are more people travelling trans-island East/West rather than towards a hub as in the past.

The creation of so many highways makes it more efficient to move long distance commuters on the highways. Thereby relieving pressure on the bus services which carry local traffic.

In the long term, the PIE may become so congested that control measures will have to be taken against private cars. Before implementing control measures, alternative means of transport must be made available to car owners. The PIE express services will have to move people who habitually travel by private transport. The existing SBS and TIBS services are inadequate.

*MRT/Bus Options Feeder Routes*

(a) SBS M1 Service (Buona Vista MRT/Mt Sinai)

Type of Service - Loop

Length Route: 5 km

Travel Time Loop - 15 minutes

Number of Stops: 14

Frequency peak - 15 minutes

off peak - 30 minutes

Fare - 40 cents

Capacity on buses - 56 seats

School Served - Raffles Junior College, Raffles Girls Primary School, Ghim Moh Secondary School, Ghim Moh Primary School, American School.

*Comment*

When the M1 service was started, it was heralded as a way of getting Mt Sinai residents to use public transport. The M1 is supposed to bring affluent Mt Sinai car owners to the Buona Vista MRT station. We do not believe that the M1 will succeed.

Mt Sinai is less than 6 km away from Orchard Road on good roads. Not many affluent residents will bother to wait for the M1 (peak frequency 15 minutes) and then ride into town on the MRT. There are 8 MRT Stations between Buona Vista and Raffles City. During off peak hours, residents will definitely prefer to use the roads.

If residents want to get to the MRT station, it only costs about \$1.80 by taxi. Observation suggests that there is no lack of taxis during off peak hours along Commonwealth Ave and Holland Road. And, in the Mt Sinai area itself.

The SBS non air con older buses are not attractive. The number of stops is very high for a commuter service. We cannot understand why there is a stop at the Food Centre, only 250 metres away from the MRT station.

The M1 could serve a useful function in ferrying students from Commonwealth Ave West to their schools. The RJC is about one km from Buona Vista MRT station. However, the \$0.40 cents fare seems high for such a short feeder service. Most SBS loop services only charge \$0.15 cents.

Too insulated by their high income and prestige motivation to switch to MRT/bus options. In less fashionable areas, there are probably more marginal car owners who are sensitive to increases in costs.

We posted an observer at the end of Sunset Way near the entrance to the Brookvale Park and Clementi Park entrances one evening between 6 pm and 7 pm.

He reported that during that period 72 cars entered the housing estates. About five out of six cars had only one occupant. The bus service was only a third full.

It seems that inspite of the high parking and ALS charges, most affluent car owners prefer to use their car. Few have bothered to car pool with fellow residents. It is our conclusion that disincentives will have to rise very much more and public transport improve greatly in coverage and frequency, before car owners can be induced to use public transport or pool their cars.

Unless circumstances change drastically, the Sunset Way bus service will remain an extension of the public transport system. Not an alternative to car owners. The development of feeder bus services must shift to areas further from town and where the residents are not so affluent. So immune to the financial disincentives imposed by the government!

(c) The Ideal MRT/Feeder Service

Type of service	: Loop
Length Route	: Not more than 12 km
Travel Time Loop	: Not more than 15 minutes but may vary with the severity of road congestion.
Frequency	: 10 to 15 minutes.
Total time MRT/bus trip	: Not more than 40 minutes.
Fare	: Much less than the cost of car usage.

From the experiences of the SBS MI and the Sunset Way Services many insights have been gained. MRT/feeder combinations are the next logical development of our public transport system. However, feeder services are not yet popular.

Financial disincentives are not high enough to offset the convenience of car ownership. Indeed, the improvement of our road system encourages car usage. Until ridership becomes more substantial, feeder services cannot offer the ideal frequency that car owners want. Indeed, until more car users in an area switch to buses there is a problem of social acceptability in using buses.

The feeder experiments in the Clementi/Ulu Pandan areas are not true tests of the viability of feeder services. The areas are too close to town and too affluent. Feeder services may be more successful in remote estates. For examples, services should be going to the Anak Bukit/Toh Tuck area to ease congestion on the Bukit Timah/PIE roads. Or, to West Coast Drive/Faber Hill areas to ease congestion along the AYE. At any rate, marginal car owners in these areas are more likely to be hurt by disincentives *and require alternatives* to car usage.

Ideally, car users will only switch to public transport if it is convenient. The frequency should not be more than 15 minutes. If the housing estate is remote, riders will accept a longer bus route. A longer bus route makes the service more economical and fares lower. The average travel time taken by a MRT/feeder combination should not take more than 25 minutes in inner areas. But, a longer time of 40 minutes is acceptable in rural areas.

*Demographics*

Age Group	Population ('000s)	
15 years	652	
15 - 19	241	
20 - 24	278	
25 - 29	284	
30 - 34	269	779
35 - 39	226	
40 - 44	151	
45 - 49	138	
50 - 54	112	
55 - 59	91	
60	205	
	<hr/>	
	2,647	
	<hr/>	

*Congested areas*

There are already 17 road junctions called "triple red junctions" because it takes a motorist three or more traffic light changes to clear the junctions. The 17:

1. ECP/Fort Road
  2. PIE/Corporation Road
  3. Hougang Ave 2/Yio Chu Kang Road
  4. Fatter Road/Holland Road
  5. Adam Road/Farrer Road
  6. Lavender St/Serangoon Road
  7. Eunos Link/Airport Road
  8. Lentor Ave/Seletar Expressway
  9. Ang Mo Kio Ave 1/CTE
  10. Marymount Road/Marymount Lane
  11. Queensway/Holland Road
  12. Scotts Road/Newton Circus
  13. Braddell Road/Upper Serangoon Road
  14. Patterson Road/Orchard Boulevard
  15. Balestier Road/Serangoon Road
  16. Upper Thomson Road/Marymount Lane
  17. Ang Mo Kio Ave 3/Yio Chu Kang Road
-

## Paper 34

### *Translation from Chinese*

From: The Singapore Taxi-Drivers' Association,  
1084/1084A Serangoon Road,  
Singapore 1232.

Dated: 21st September 1989.

This Association has the honour to present to the Select Committee herewith our representations expressing our views on the relevant policies.

LING JIN CHENG,  
*President.*

---

### REPRESENTATION OF SINGAPORE TAXI-DRIVERS' ASSOCIATION ON LAND TRANSPORTATION POLICY

The Singapore Taxi-Drivers' Association is an organisation representing yellow-top taxi workers with a membership of 1,300 persons.

First of all, we would like to thank Dr Hong Hai, Chairman of the Government Parliamentary Committee on Communications and Information for giving us the opportunity to present to the Select Committee our views on questions affecting the livelihood of taxi workers.

#### *Taxi is a Means for Public Transportation*

The Association is of the opinion that taxi is part of our public transport system; it differs entirely from private cars. Private cars are meant for their owners and owners' families. Everyday, there are some 700,000 passenger-trips carried by the taxis, only next to the buses, far exceeding the number of passengers carried by MRT trains. According to our understanding, in all major cities of the world, taxis form part of the public transport system, regulated by public transport authorities, meeting transportation needs of the people. In Singapore, the situation is not different. Taxi operation in Singapore is totally regulated by vehicles registration and other public communications provisions. Taxi fares are also subject to the reviews and endorsement by Public Transport Council. Therefore, the taxi is a means for public transportation; there is absolutely no reason to treat the taxi as a private car.

As the taxi is a means of public transport available for all commuters, it should be given certain considerations and concessions in the same light as other public transport vehicles. MRT's construction cost is as high as 5 billion dollars which is entirely borne by the national treasury. Public buses as they are similarly meant for all commuters are given some concessions, their diesel tax is also lower than that of

taxis. Therefore, there is no reason to consider raising the taxes for operating the taxis to the level as for the private cars.

Recently, it was announced that the Ministry of Communications and Information had "talked of considering raising the ARF for taxis to reach the level for private cars" which had caused great consternation and anxiety to all the taxi workers. If the taxis ARF reached the level for the private cars, then the taxi fares would be many times higher than that of the present, consequently passenger demand would definitely be lowered resulting in excess supply of taxis, which would not only inflict serious difficulties to the livelihood of our taxi workers and their families but also create confusion to the whole of taxi services as a result. This is a matter of major policy that is concerned with the livelihood of the whole body of taxi workers and taxi services. What had happened would serve as a warning for us. It is hoped that the Government would ponder well over this matter.

### *Taxi Fares*

At present, taxi fare scheme is reviewed and endorsed by the Public Transport Council (PTC). This is correct, as taxis are public transport vehicles. However, the internal economic development of Singapore every year will vary the demand for taxis and the cost of their operation. We hope that the Public Transport Council would meet regularly once every two years to review taxi fare structure. If necessary, PTC should convene meetings of people in the professions concerned to consider together and to have mutual consultation on adjustments to taxi fares.

### *The Size of Taxi Fleets*

The Association supports the desire of the Government to maintain free flow of traffic on our roads. Therefore, the size of taxi fleets should be subjects to control. At present, one-third of the time the taxis are running unoccupied on the roads. It is not necessary to increase the number of taxis to the fleets, as it would cause traffic congestion and affect the livelihood of taxi workers.

### *Taxi Licence*

At present, the number of yellow-top taxis is gradually decreasing in a process of natural elimination. When a taxi owner has passed away or has retired because of illness, injury or old age, his taxi licence will be withdrawn by Registry of Vehicles when the taxi has been 7 years old.

This Association considers that the Authority should allow the licence to be transferred to a direct-line relative who is in possession of a professional taxi driving licence, on the demise or retirement of the yellow-top taxi owner. In this way, it will not add to the number of taxis in the fleets in Singapore and will therefore not increase traffic burden on the roads.

If the Government considers taxi service should best be managed by experienced transport operators, then this Association suggests that the Government issue those withdrawn yellow-top taxi licences to Singapore Taxi-Drivers' Association to manage under its responsibility. This also will not increase the number of taxis in the fleets, nor increase the burden on the roads.



Singapore Taxi-Drivers' Association has a long history and experience in the fields of organizing taxi workers and operating taxi services. After acquiring yellow-toop taxi licences, the Association will distribute them or lease them fairly to member taxi workers.

---

**Paper 37**

*Translation from Chinese*

From: The Singapore Secondhand Motor Vehicles Dealers Association,  
6-C Lorong 7 Geylang,  
Singapore 1438.

Dated: 22nd September 1989.

Please acknowledge receipt of the following from our Association.

1. Registry of Vehicles Annual Report 1988\*
2. Specimen copy of log card EF0120X\*
3. 2 copies of our Association suggestion booklet.

LIM HONG KOON,  
*Vice-President.*

---

**FOREWORD**

We are very grateful to the Select Committee on Land Transportation Policy for inviting our Association to present views and representations on questions relating to vehicles, public transportation and bus services.

As an Association closely connected with matters pertaining to transportation, at the same time in keeping with our usual support for the Government in studying and solving the problem of traffic congestion, our Association has in addition to soliciting views from our members also convened several meetings to discuss pertinent counter measures.

These suggestions represent our views on solving the problem of traffic congestion for your reference.

**IS THE PARTIAL ADDITIONAL REGISTRATION  
FEES (PARF) SCHEME EFFECTIVE?**

First of all, let us examine whether the PARF scheme has had any definite effect on the two main objectives of our land transportation policy. That is to say:

1. Has it helped in curbing the increase of overall motor-car population.
2. Could it reduce the age of our motor-cars, so that traffic congestions due to old cars breaking down on the roads could be avoided.

---

\*Not reproduced.

The answers are positive:

1. Since the implementation of the PARF scheme in 1975 right up to 1988, a total of 147,856 old cars (See Table 6 of ROV 1988 Annual Report [page B 94]) have been scrapped. Had there been no PARF scheme our present traffic congestion would indeed be unimaginable.
2. Due to the operation of the PARF scheme, which continuously liquidated old cars of advanced age, it has caused the age of our motor-cars to drop by a big margin. From Table 5 of the Report [page B 93] it can be seen that our motor-cars below the age of 6 years make up to 60.7% those below 8 years make up to 82.2%, greatly reducing possible traffic congestions caused by old cars breaking down.
3. From Table 1 and Table 2 of the Report [pages B 91 and B 92], it is not difficult for us to see that total motor-car population growth rate beginning from 1984 until 1987 had remained at 1.8%, - 0.6% and 0.7% levels. It is obvious that the PARF scheme after a period of implementation has manifested its effectiveness. The growth rates of 6.6% in 1981, 11.6% in 1982, 12.1 % in 1983 and 7.3% in 1984 were due to the scarcity of motor-cars of 10 years old available for scrapping during that period coupled with our generally good economy in 1981 when the demand for new cars had increased greatly which resulted in many cars being sold by ARF. See Table 6 of the Report [page B 94].
4. If the Government thinks that to keep our traffic smooth and free-flowing the annual growth rate in motor-car population should not exceed 1%, let us examine the state of car growth in the past 13 years. It is not difficult for us to discern from Table 6 of the Report [page B 94] the following facts:

If based on the total number of motor-cars amounting to 238,984, to be scrapped within 10 years, an average number of scrappable motor-cars annually would be 23,898; allowing for the 1% growth rate, the annual number of registerable new cars would be 26,287.

But judging from Table 6 of the Report [page B 94], it is not difficult for us to see that in the 13 years from 1976 to 1988, only in 3 years had this figure been exceeded. Therefore, this Association is of the opinion that through the effective operation of the PARF scheme continually allowing new cars through the replacement market to be registered in substitution, the question of our transport will not present any great problem. Therefore, we dare say positively that the PARF scheme is a practicable and effective scheme.

#### WHY WAS PARF SCHEME NOT EFFECTIVE IN THE BEGINNING OF 1988 AND 1989?

Motor-car population surged up to a level of growth as high as 6.9% in 1988 and continued to grow with a big margin in the beginning of 1989. It was indeed worrying.

But, if we go a step further to make an in-depth study, it will not be difficult for us to find that there were reasons for this phenomenon, not the fault of PARF scheme. Our views are as follows:

1. In 1985 and 1986 there was great economic depression, our people exercised great economic restraint by holding back their plans to buy new cars in an attempt to overcome the difficulty together. This had caused a great drop in the sale of new cars. (See Table 1 and Table 6 of the ROV Annual Report [pages B 91 and B 94]). However, following the great effort of promotion by BG Lee Hsien Loong's Economic Committee, Singapore's economy has revived rapidly in recent years.
2. The favourable economic turn-round plus the large influx of foreign investments has to a certain extent increased the demand for new cars. The increased demand made the scrappable cars of 1979, numbering only 21,018, appear awkward in contrast. That is because there were fewer scrappable old cars of 1977 and 1978; many old cars of 1979 were already scrapped in 1987. Under the condition of supply being unable to meet demand, scrap car values rose tremendously, causing many new cars to be sold on ARF prices resulting in the registration in 1988 of 13,844 new motor-cars by ARF and only 10,403 by PARF (See Table 6 [page B 94]).
3. The rapid rising of the Japanese Yen and the mark had caused great increases in car prices and also widened the gap between PARF and ARF. Scrap car values, also rose naturally, which gave people a keen sense of investment by rallying to buy cars. Take the Japanese yen, from the exchange rate of 100 yens to 0.8 Singapore dollar in 1986 it has risen to 100 yens to 1.6 Singapore dollars in 1988, a scope of increase of 100%.
4. During this period the Government did not make use of the mechanism of PARF and ARF to control and adjust the percentages as between the two to require new cars to be sold by PARF; this is also one of the reasons for the increase of overall motor-car population.
5. The influence of rumours in the market:

In October 1988 Minister Yeo announced that a measure in the form of a series of small dosages would be used to curb the increase of motor-car population. This caused many intending car buyers to adopt a wait-and-see attitude.

But in November 1988 after Minister Yeo had announced an increase in Road tax of 15% to 20% people started to make wild guesses and speculations and frantically scrambled for new cars, hoping to register them before the government announced an increase in the ARF or PARF.

This not only took the new-car dealers by surprise, they were also confronted with almost a long queue of buyers. It also caused a vertical rise in the number of our registered new motor-cars.

Since November 1988 until March 1989 the Government had not announced in time any measure to curb car-growth, nor had it clarified any rumours in time. This is one of the reasons for the rapid increase in new cars.

- 6. From the data provided by the ROV, it is shown that there is a trend of old cars over 10 years age increasing in number. This has aggravated the situation of demand not being met by supply of scrap cars which were already in short supply.

From the various reasons mentioned above, it can be seen that the PARF scheme being out of function was due to the interference of many extraneous factors. We should not dismiss this time-honoured great benefactor which had all along made great contribution towards the solution of our traffic congestion, just because of the special conditions of one particular year.

Following this, let us study whether the PARF scheme will function effectively in the 3-5 years hereafter, helping to solve the problems of our traffic congestion.

Our views are positive.

THE EFFECTIVENESS OF THE OPERATION OF  
PARF IN THE 3-5 YEARS HEREAFTER

- 1. From Table 6 of the ROY Annual Report 1988 [page B 941 we can see that in the coming 3-5 years there will be plenty of scrappable old cars available in the market. They are respectively:

<i>Year</i>	
1980	28,210
1981	20,980
1982	28,426
1983	28,247
1984	20,382

If the PARF scheme were abolished, people had to continue to use these old cars. It could lead to traffic congestion and unimaginable condition.

- 2. With plentiful supply of scrap cars available, besides, many people had already bought their new cars in the beginning of 1988 and 1989, under the Law of supply and demand of the market free from interference from extraneous factors, scrap value will definitely decrease. This will solve the worries of the government about the increasing growth rate of motor-car population and traffic congestion, for the reasons that:

- (a) when scrap, value decreases, many new-cars will be bought by PARF. This will invisibly reduce the growth of car population.
- (b) To buy a new car it is required that an old car must be scrapped, the age of our motor-car population will further be lowered.

- (c) Because of lowering of scrap value, buying a car will not be a kind of investment. Accordingly there will be fewer people who will buy cars as investment.

3. On the other hand, what our Association is worried about is that in the coming 5 years whether our people's demand for new cars will be enough to offset the supply of scrap cars. If not, how are the annually 20,000 odd old motor-cars to be dealt with.

Therefore our Association regards the PARF scheme as practicable, especially in the coming 3-5 years it will have a greater role to play. Therefore, at this critical juncture, if the PARF scheme is discarded it will be very unwise, as it will run counter to the objective that our land transportation policy intends to achieve.

Let us quote here what Dr Augustine Tan, MP for Whampoa had said on May 31st: "When we have a practicable system, let us try to improve it. If there is something wrong in its operation, let us amend it on the premise that we don't discard its principle and objective. We should never abandon it wantonly."

#### HOW TO MAKE PARF SCHEME MORE EFFECTIVE

1. Concerning those motor-cars over 10 years old still not scrapped, impose double road tax on them and subject them to regular inspection once every 6 months. These stringent measures are aimed at making car owners discard old cars. This will reduce traffic congestion caused by old cars breaking down on the roads and will lower our car age.

2. From Table 5 of the Report [page B 93], we can see that there are 6,703 cars just reaching 10 years old while 4,639 cars are reaching 11 years old. If ROV could, before a car exceeds the age for scrapping, issue a notice to remind and advise the owner, we believe, it will also help to curb the increase of old-car age.

3. Through the percentage parity between PARF and ARF, control the disparity between the two in order to reduce the influence due to either an excess or an insufficiency of scrap cars. When there is insufficient supply of scrappable cars or when scrap cars have increased a great deal, the government can announce a special policy applicable for the occasion allowing cars over 10 years old to enjoy certain scrap value within a brief period.

4. As new-car dealers, secondhand-car dealers and finance companies are at the forefront concerning questions of transportation, invite them to join the Land Transport Committee to take part in regular study of land transport problems and to reflect market condition, rumours in town, public reactions and so on. This will enable them to make more practicable contributions and present their appropriate views.

## THE AFTER-EFFECT OF ABOLISHING THE PARF SCHEME

Here, let us talk about why PARF scheme should not be abolished and the after-effect of abolishing the PARF scheme.

1. Many car purchasers take the level of scrap value of a car as a standard for determining the fair price of the old car. The sudden abolition of the PARF value will make many car driving people feel like being cheated besides at the same time suffer heavy losses. For example, a 1980 1300 cc saloon car can be sold at the price of \$12,000, it is because of its scrap value of \$11,000.
2. The abolition of PARF value will cause a great fall in car prices. When prices of cars become cheap, many people will be attracted to make use of the opportunity to buy cars while they are cheap. It will cause a great increase in motor-car population, contrary to the original intention of the scheme.
3. According to statistics, about 80% of motor-cars are purchased through loans given on credit terms by finance companies. If the PARF scheme is abolished, there will be a great fall in car prices, car owners will have to allow the finance companies to recover the cars and the finance companies and secondhand motor-car dealers will suffer tragically heavy losses. This kind of chain reactions will also have far-reaching ramifications affecting banks and the economy of the whole country. The Government should ponder carefully over this.
4. Once the PARF scheme is abolished, old cars cannot have scrapping benefit, car owners have no choice but to continue using their old cars. This increasing number of old cars will not only cause traffic congestion but also run counter to Government's policy of controlling the growth of motor-car population.

## CONTROLLING MOTOR-CAR POPULATION BY CAR PRICING OR QUOTA

Our Association is of the opinion that the employment of these two methods to control the growth of motor-car population will not achieve any major effect but will be very unfair.

1. It is unwise to control motor-car numbers by car pricing. Car prices in Singapore have already reached a very high level. If the Government says that it will use increasing car prices to curb the demand for motor-cars, it will create a psychology for investment in the mind of the people a desire to buy new cars at all cost, which will end up in blunders defeating the original purpose.
2. To control motor-car numbers by quota is practicable in theory, but in implementation whether it will be unfair to some people incurring their dissatisfaction, is a thorny question.

The above-mentioned two methods compared with the current PARF scheme appear to be inferior, as they will not be able to reduce the growth of motor-car population or lower our car age, in addition, too much human manipulation will stifle the most efficient operation of the law of supply and demand market. Therefore, they may only be suitable as complementary measures, not suitable as the sole means for implementation.

## IEWS ON PUBLIC TRANSPORT

Having discussed questions relating to motor-cars, let us now talk about public transport and bus services which have close relationship with traffic congestion and also touch on our views on Area Licensing Scheme (ALS) policy.

1. Buses and public transport (other than MRT) are also an important factor contributing to traffic congestion. Our Association suggests that when our MRT system is fully in operation, buses (except shuttle buses within city area) shall not enter restricted areas, they should drive round such areas.

Bus passengers who need to enter city area should change to an MRT train at a Bus-MRT Interchange outside the restricted area. This will further be facilitated when the bus-MRT through ticket system has come into operation.

2. *(ALS) Restricted Areas:*

Our Association is of the opinion that in order to thoroughly solve the traffic congestion condition in city areas, the Government should raise the fee for the pass to enter the restricted areas instead of lowering it. At the same time, our Association also considers the implementation of the Evening ALS pass measure as seemingly not quite necessary, as it affects the evening business activities in the commercial areas, causing the already quiet commercial areas in the evening to be the more deadly quiet. It at the same time also affects the after-4.30 pm commercial activities of many commercial establishments in the city areas, possibly causing great economic losses to the country.

3. The Government can set up a sub-committee to draw up detailed time-tables allotting the office starting and ending times for various big and small organizations in the city areas, thus the so-called peak hours may be spread out or moderated. In the meantime, Government organizations should, where possible, be spread out and relocated to various locations outside city areas.
4. *Parking Charges:*

Raising parking fees in ALS areas will also have the effect of discouraging people going to work by car. To supplement the measure, spacious car-parks can be set up beside bus-MRT exchanges outside the restricted areas to facilitate and for the convenience of those who need to drive to MRT stations.



5. Of course, measures like raising petrol tax, restriction on use of motor vehicles, electronic road pricing system, continuous road expansion, effective control of traffic lights at various major junctions, etc, will all help to reduce traffic congestion from taking place.

## CONCLUSION

Our Association is of the unanimous opinion that the current PARF scheme itself is a very good system.

Its achievements can be seen by all. We need only to make some minor improvements to the present PARF scheme to make it more perfect and more effective.

In addition with other measures to restrict the use of vehicles and, further, with the operation of the law of supply and demand of the market, in the three or five years hereafter there will not be the likelihood of any rapid growth in motor-car population.

We hereby earnestly request that the Land Transport Committee in the course of its present deliberation will be able to formulate a set of definite and long term transport policy that will enable the public and our Association members to feel at ease and to make firm long term plans for our motor-car business so that we may be spared being troubled by rumours and be free from worries of any changing government policies now and then.

LIM HON KOON,  
*Vice-President.*

---

TABLE 1  
MOTOR VEHICLE POPULATION 1981 - 1988

ITEM		1981	1982	1983	1984	1985	1986	1987	1988
1	<b>MOTORCARS</b>								
i)	Motorcars & station wagons in personal name	143,446	160,757	182,120	195,873	200,032	200,163	201,651	215,928
ii)	Business service passenger vehicles	15,515	16,044	16,992	18,248	18,105	17,558	17,868	18,959
iii)	Tuition cars & station wagons	888	920	1,090	1,085	1,104	910	856	957
iv)	Private hire cars & station wagons	3,506	4,515	4,168	4,159	4,030	3,314	3,081	3,140
	<b>Sub-Total</b>	<b>163,355</b>	<b>182,236</b>	<b>204,370</b>	<b>219,365</b>	<b>223,271</b>	<b>221,945</b>	<b>223,456</b>	<b>238,984</b>
2	<b>MOTORCYCLES</b>								
i)	Motorcycles and scooters	126,343	135,359	140,267	133,492	126,337	119,241	115,476	116,476
3	<b>BUSES</b>								
i)	Omnibuses	3,206	3,219	3,287	3,354	3,597	3,530	3,482	3,410
ii)	School buses	2,530	2,736	2,733	2,645	2,573	2,427	2,345	2,207
iii)	Private buses	419	648	866	1,062	1,232	1,271	1,354	1,475
iv)	Private hire buses	408	507	616	687	779	862	944	1,039
v)	Excursion buses	243	327	338	356	356	383	458	657
	<b>Sub-Total</b>	<b>6,806</b>	<b>7,437</b>	<b>7,840</b>	<b>8,104</b>	<b>8,537</b>	<b>8,473</b>	<b>8,583</b>	<b>8,788</b>
4	<b>TAXIS</b>								
i)	Public taxis	9,862	10,278	10,668	11,058	10,938	10,677	10,552	10,473
ii)	School taxis	7	5	5	4	3	0	0	0
	<b>Sub-Total</b>	<b>9,869</b>	<b>10,283</b>	<b>10,673</b>	<b>11,062</b>	<b>10,941</b>	<b>10,677</b>	<b>10,552</b>	<b>10,473</b>
5	<b>EXEMPTED VEHICLES</b>								
i)	Motorcars and station wagons	1,843	1,914	1,890	1,913	2,038	1,935	2,112	1,957
ii)	Motorcycles and scooters	1,379	1,540	1,302	1,201	1,227	1,146	1,068	1,094
iii)	Buses	162	164	164	179	180	165	150	136
iv)	Lorries and tippers	1,074	1,128	1,187	1,119	1,046	971	844	919
v)	Tractors	190	187	176	168	161	155	155	163
vi)	Rollers	461	471	487	470	451	411	354	305
vii)	Others	2,454	2,554	2,708	2,872	2,866	2,778	3,326	3,932
	<b>Sub-Total</b>	<b>7,563</b>	<b>7,958</b>	<b>7,914</b>	<b>7,922</b>	<b>7,969</b>	<b>7,561</b>	<b>8,009</b>	<b>8,506</b>
6	<b>GOODS AND OTHER VEHICLES</b>								
i)	Goods-cum -passenger vehicles	593	555	8,757	8,959	8,781	8,634	8,562	8,525
ii)	Light Goods Vehicles	58,645	63,531	59,208	59,940	57,915	55,442	54,211	53,933
iii)	Heavy Goods Vehicles	25,418	29,173	33,198	38,436	39,298	38,241	38,756	43,183
iv)	Others	3,213	3,744	4,061	4,042	3,711	3,445	3,519	2,940
	<b>Sub-Total</b>	<b>87,869</b>	<b>97,003</b>	<b>105,224</b>	<b>111,377</b>	<b>109,705</b>	<b>105,762</b>	<b>105,048</b>	<b>108,581</b>
<b>ALL MOTOR VEHICLES (TOTAL)</b>		<b>401,805</b>	<b>440,276</b>	<b>476,288</b>	<b>491,322</b>	<b>486,760</b>	<b>473,659</b>	<b>471,124</b>	<b>491,808</b>

**TABLE 2**  
**MOTOR VEHICLE GROWTH RATE 1981 -1988**

		<b>1981</b>	<b>1982</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>
1	MOTORCARS	6.6%	11.6%	12.1%	7.3%	1.8%	-0.6%	0.7%	6.9%
2	MOTORCYCLES	7.9%	7.1%	3.6%	-4.8%	-5.4%	-5.6%	-3.2%	0.9%
3	BUSES	7.1%	9.3%	5.4%	3.4%	5.3%	-0.7%	1.3%	2.4%
4	TAXIS	4.1%	4.2%	3.8%	3.6%	-1.1%	-2.4%	-1.2%	-0.7%
5	EXEMPTED VEHICLES	7.4%	5.2%	-0.6%	0.1%	0.6%	-5.1%	5.9%	6.2%
6	GOODS AND OTHER VEHICLES	12.5%	10.4%	8.5%	5.8%	-1.5%	-3.6%	-0.7%	3.4%
	ALL MOTOR VEHICLES (TOTAL)	8.2%	9.6%	8.2%	3.2%	-0.9%	-2.7%	-0.5%	4.4%

**TABLE 5**  
**AGE DISTRIBUTION OF MOTOR VEHICLES (EXCLUDING EXEMPTED VEHICLES)**  
**AS AT 31 DECEMBER 1988**

<b>Age (Yrs)</b>	<b>No of Cars</b>	<b>%</b>	<b>No of Motor Cycles</b>	<b>%</b>	<b>No of Buses</b>	<b>%</b>	<b>No of Goods and Other Vehicles</b>	<b>%</b>
below 1	26,454	11.1	6,361	5.5	625	7.1	6,887	6.3
1	12,607	5.3	5,711	4.9	480	5.5	3,646	3.4
2	8,156	3.4	5,116	4.4	334	3.8	2,799	2.6
3	13,457	5.6	8,340	7.2	752	8.6	5,996	5.5
4	22,218	9.3	13,279	11.4	421	4.8	10,128	9.3
5	30,742	12.9	15,707	13.5	730	8.3	10,849	10.0
6	31,216	13.1	15,774	13.5	566	6.4	10,826	10.0
7	22,669	9.5	12,846	11.0	644	7.3	10,369	9.5
8	28,786	12.0	10,195	8.8	468	5.3	11,082	10.2
9	16,551	6.9	7,117	6.1	518	5.9	11,725	10.8
10	6,703	2.8	4,348	3.7	512	5.8	6,882	6.3
11	4,639	1.9	2,759	2.4	509	5.8	4,014	3.7
12	1,749	0.7	1,697	1.5	516	5.9	3,565	3.3
13	1,842	0.8	1,230	1.1	382	4.3	2,479	2.3
14	2,647	1.1	1,291	1.1	494	5.6	2,139	2.0
15 & older	8,548	3.6	4,705	4.0	837	9.5	5,195	4.8
Total:	238,984	100	116,476	100	8,788	100	108,581	100

Buses include tuition bus

**TABLE 6**  
**REGISTRATION OF MOTORCARS BY ARF AND PARF**  
**(INDIVIDUAL NAMES) 1976 -1988**

<b>YEAR</b>	<b>ARF</b>	<b>PARF</b>	<b>TOTAL</b>
1976	694	6,561	7,255
1977	729	13,451	14,180
1978	1,143	15,429	16,572
1979	4,709	16,309	21,018
1980	7,004	21,206	28,210
1981	7,553	13,427	20,980
1982	15,021	13,405	28,426
1983	19,935	8,312	28,247
1984	13,992	6,390	20,382
1985	6,256	6,625	12,881
1986	558	6,964	7,522
1987	2,052	9,374	11,426
1988	13,844	10,403	24,247

## Paper 41

From: The Vehicle Rental Association,  
c/o 317 Outram Road #02-23,  
Glass Hotel,  
Singapore 0316.

Please find attached our submission which has been deliberated by our Executive Committee.

EUGENE LIM,  
*President.*

---

### SUBMISSION TO THE SELECT COMMITTEE ON LAND TRANSPORTATION POLICY

#### *Preamble*

There are presently about 4,000 rental cars registered which is less than 2% of the total car population in Singapore. About 10% of these rental cars are used for chauffeur-driven hire while the rest are rented on a self-drive basis. As is the case world wide, car rentals has always been a good alternative to owning cars as long as the car rental rates are reasonable and affordable. Most car rental companies in Singapore operate on a low margin of profit to keep rates down but even then based on an International Car Rental Company rates, Singapore has the highest rental rates in Asia. However, unlike the other countries, the car rental business in Singapore is not a lucrative business.

For the domestic market, car rentals fulfils the need of the non car owner to rent a car on weekends, special occasions or when entertaining overseas friends, relatives or guests. Right now on average, a self-drive rental car serves 4 customers a month on the whole, based on a 67% utilization. But if the high capital cost of rental cars can be reduced then rental rates can be reduced and accordingly car rentals will be more viable as an alternative to owning a car. However, even if rental rates can be significantly reduced it would not be more viable to rent a car on a monthly basis as opposed to owning a car.

For the international market, driving into West Malaysia has become more popular especially with the foreigners and tourists. Right now only about 20% of the total rental cars have permits to allow them to be used in West Malaysia. These cars are earning a reasonable amount of foreign exchange that otherwise would be lost to the Malaysian rental car companies whose rates are much lower. However, if we again can reduce our rental rates more foreigners and tourists would be attracted to rent cars to drive into West Malaysia and at the same time getting back part of the business that had been lost to Malaysian Car Rental Companies. Furthermore these cheaper Malaysian rental cars are being used in Singapore and thus depriving us of revenue which is rightly ours.

### 1. *The PARF Scheme*

We are thoroughly satisfied with the present PARF scheme and because rental cars enjoy the same benefit as private cars our Association is in support of the PARF scheme. We therefore recommend that the PARF scheme should not be scrapped. However, should there be a need to do away with the scheme we recommend the following:

- (a) That a 6 month notice be given so that adjustments can be made by Car Rental Companies to modify their business.
- (b) Rental cars purchased under the PARF scheme should continue to enjoy the full PARF benefit until the end of its 7 year life span irregardless of the number of owners, i.e. it can be sold for scrap to a prospective private car owner as is the current policy. There would be great financial repercussions if this is not so as the rental rates changed since the date of purchase had been based on a certain expected residual scrap value. To eliminate this residual value at one go would mean writing off approximately on average \$25,000 per car which would be a great financial loss for all car rental companies.
- (c) For the newly registered rental cars without the PARF benefit to be allowed to be sold to private car owners as was the case before 1984. This will therefore allow rental cars to have a reasonable residual market value at anytime like anywhere else in the world. With such a residual market value, rental rates can be reduced and furthermore car rental companies do not have to stretch the life span of each rental car to the limit resulting in newer and better quality rental cars in the market in keeping with Singapore's image as a NIC with a high standard of living. With increasing measures being introduced to curb road usage, this insignificant increase in car population should not affect traffic congestion. In any case cars of less than 5 years old attract good market value overseas and therefore many of these cars would be exported.

### *Reduction in ARF for Earlier Replacement*

For your information the current average life span of the rental car in Singapore is between 5 to 6 years. However, the average life span in some other countries are as follows:

Australia	- 2 years	Europe	- 1½ years
Hong Kong-	2 ½ years	Philippines	- 3 years
Malaysia	— 2½ years	USA	- 1 year

Currently, the ARF for new SZ cars is at 175% of the Customs assessed value (OMV). For those buyers who purchase on PARF basis, they currently receive a rebate on the ARF and only need to pay the following percentage of the ARF:

- (a) 1,000 cc and below - 45% of ARF
- (b) 1,001 cc to 1,600 cc - 50% of ARF
- (c) 1,601 cc to 2,000 cc - 55% of ARF

(d) 2,001 cc to 3,000 cc - 60% of ARF

(e) 3,000 cc and above - 65% of ARF.

Taking into account the fact that there is a need to upgrade the quality of SZ cars available for rental, we are, therefore, proposing to provide an incentive for car rental companies to renew their cars earlier than the seven years' limit of the life span for SZ cars.

To encourage this earlier renewal, it is, therefore, proposed that there be a further 20% reduction in the ARF payable for SZ cars scrapped or exported before five years and a further 30% reduction for up to four years and 40% reduction up to three years. The effect of these proposals are tabulated on the attached sheet for easy reference and the above-stated reductions are reflected as follows:

<i>PARF Payable as % of ARF</i>	<i>Up to 5 Years</i>	<i>Up to 4 Years</i>	<i>Up to 3 Years</i>
(a) 1,000 cc and below	25%	15%	5%
(b) 1,001 cc to 1,600 cc	30%	20%	10%
(c) 1,601 cc to 2,000 cc	35%	25%	15%
(d) 2,001 cc to 3,000 cc	40%	30%	20%
(e) 3,001 cc and above	45%	35%	25%

This proposal that has been drawn up is modelled along the same incentive that is being provided for taxis, a copy of which is attached for reference purposes [page B 99]. It must be noted that since 1986, SZ cars cannot be sold as usable cars to the private car market but only as scrap cars or exported. As such, any car rental company wanting to scrap or export its older SZ cars can only recover its scrap value or export value. With this proposed reduction of ARF, it is intended that Car Rental Companies would be encouraged to up-grade their cars and maintain a fleet of fairly new cars which would be less than five years and preferably less than three years old. For your information, the average life span for International Car Rental Companies rental cars is less than twelve months.

### *Electronic Road Pricing*

We wish to express our reservations on the ERP as it affects rental cars. We are given to understand that with the implementation of the ERP system all vehicles passing specific gantry points in the city would be charged depending on the time of the day. Now, many hirers of rental cars have to be charged on the spot on completion of the hire and if it is not possible to obtain immediately information as to the amount of the ERP charges, Car Rental Companies will not be able to collect the ERP charges from the hirer if he is a non resident who is leaving the country immediately since such ERP charges are expected to be variable and charges are dependent on the number of entries at different times of the day and it would not be possible to estimate the ERP charges in advance. We would therefore like to make the following recommendations:

- (a) That the VRA be provided with a computer terminal to link up with the ERP system to allow the VRA to extract immediately the ERP charges for its Car Rental members as and when required.



- (b) That for Car Rental Companies to receive weekly statement of ERP charges giving details of date and time of each charge transaction to facilitate counter checking of hirers' charges.
-

**COMPUTATION OF THE REVISED PARF PAYABLE UNDER THE NEW PROPOSAL**

					Current PARF	Reduced PARF		
		PARF Price	OMV	ARF		Up to 5 Years	Up to 4 Years	Up to 3 Years
1.	1,300 cc Savings	S\$35,978	S\$13,140	S\$22,995	S\$10,348	S\$5,749 (S\$4,559)	S\$3,449 (S\$6,899)	S\$1,150 (S\$9,198)
2.	1,600 cc Savings	S\$55,888	S\$21,196	S\$37,093	S\$18,547	S\$11,128 (S\$7,419)	S\$7,419 (S\$11,128)	S\$3,709 (S\$14,838)
3.	2,000 cc Savings	S\$89,320	S\$25,511	S\$44,644	S\$24,554	S\$15,625 (S\$8,929)	S\$11,161 (S\$13,393)	S\$6,697 (S\$17,857)
4.	2,000 cc Savings	S\$123,000	S\$39,273	S\$68,728	S\$37,800	S\$24,055 (S\$13,754)	S\$17,182 (S\$20,618)	S\$10,309 (S\$27,491)
5.	3,000 cc Savings	S\$177,000	S\$53,000	S\$92,750	S\$55,650	S\$37,100 (S\$18,550)	S\$27,825 (S\$27,825)	S\$18,550 (S\$37,100)

*Notes:* The new cars used in the above computation are as follows:

- |    |                        |          |
|----|------------------------|----------|
| 1. | Mitsubishi Lancer      | 1,300 cc |
| 2. | Honda Accord Auto      | 1,600 cc |
| 3. | Toyota Cressida Auto   | 2,000 cc |
| 4. | Mercedes Benz 200 Auto | 2,000 cc |
| 5. | BMW 730 Auto           | 3,000 cc |

## Paper 45

From: The Singapore Lorry Owners Association,  
2nd Floor No. 11B,  
New Bridge Road,  
Singapore 0105.

Dated: 22nd September 1989.

We enclose herewith a Memorandum to the Select Committee on land transport outlining our views on the Government's policies on road transportation which affect commercial vehicles.

LEE KOK CHIN,  
*Chairman,*

LIM QUEE HUAT,  
*Hon. Secretary.*

---

### MEMORANDUM TO THE SELECT COMMITTEE ON LAND TRANSPORT

#### 1. *Introduction*

1.1 The Singapore Lorry Owner's Association has 300 members who collectively own about 3,000 heavy vehicles comprising about 1,500 lorries and 1,500 prime movers (excluding trailers).

60% of our members own between 2 and 5 vehicles,  
25% between 6 and 10 vehicles, and  
15% between 10 and 30 vehicles each.

#### 2. *Service*

2.1 The service provided by our members has a direct relationship with the level of Singapore's economic activity and contributes to its growth.

2.2 Importers and exporters use 70% of our members' service while domestic traders account for 30%.

#### 3. *Frequency of Vehicle Movements*

3.1 Each prime mover makes 3 to 4 trips a day (24 hours) to the PSA and each lorry enters the PSA 1 or 2 times a day. This works out to an average of 5,500 trips a day for the 3,000 vehicles owned by own members.

#### 4. *Parking Fees*

4.1 The recent increase of parking fees has pushed up the operation cost of our members. The increase, between 32% and 44%, is considered too high.

Trailers: From \$90 to \$130 per month - 44.44% increase

Lorries: From \$140 to \$185 per month - 32.14% increase

Parking in outlying areas: \$60 to \$80 per month - 33.33% increase.

4.2 While we agree that in land-scarce Singapore usage of parking space has to be paid for, such hefty increases and other increases which we will come to later, will ultimately force lorry operators who wish to stay in business to raise their transportation rates and, in the final analysis, will affect the cost of goods and the competitive edge of our exporters.

#### 5. *Area Licensing Scheme*

5.1 Although the Association agrees with the Government that road usage needs to be curbed, we feel that a distinction should be made between necessary usage which contributes significantly to the level of Singapore's economic growth and personal usage where an alternative can be found in the public bus or MRT systems.

5.2 Lorries and prime movers are essential to the country's economy. Their usage is determined by the volume of our country's imports and exports and general trading activities. There is no way to curb it when Singapore's economy is so vibrant and expanding.

5.3 Lorry owners have no choice as to the hour of day to operate because shipping schedules have to be met.

5.4 They have little choice as to the place and routes to operate. But even if they could find alternative routes whereby they could bypass the CBD area, the lorries and prime movers with and without trailers will congest the peripheral roads, considering the number of trips they make a day. It will defeat the Government's declared objective of ensuring free flow of traffic.

5.5 We fail to understand why SBS and TIBS buses are exempted from paying the ALS fee while lorries and prime movers are not. We sincerely feel lorries and prime movers should also be exempted because they too provide an essential service.

5.6 Free flow of traffic is hampered by other factors as well. For example, kerbside parking, buses not keeping to the lanes specially provided for them, taxis stopping indiscriminately, etc. Perhaps more enforcement action in these areas is necessary.

#### 6. *Smoky Vehicles*

6.1 The fine for drivers and owners of vehicles which emit black smoke between 50 and 64 HSU has been increased from \$40 to \$100, i.e. 150%. And vehicles with a smoke level of 65 to 85 HSU will, in addition to the fine, be taken

off the road. Owners and drivers will also be charged in court if the smoke level of their vehicles exceeds 85 HSU.

6.2 We do not condone air pollution but we must say that the new penalties are too severe. Heavy vehicles are subject to compulsory periodic inspections and owners and drivers do not intentionally continue to operate their vehicles which emit black smoke. Once they find out that a vehicle is emitting black smoke they will send it for repairs. They have no wish to damage the engine by continuing to run it.

6.3 It has been observed that some vehicles belonging to the Government and SBS buses also emit black smoke at one time or other even though they are regularly maintained.

## *7. Inspection of Vehicles*

7.1 Vehicles below 10 years have to pass a yearly inspection and those above 10 years half yearly.

7.2 There is only one vehicle inspection centre for heavy commercial vehicles. It was set up about 5 years ago and, as far as we can see, it has not increased its facilities.

7.3 About 80% of heavy vehicles above 10 years old have to go through 2 or 3 repeat inspections and 20% between 3 and 5 repeat inspections before a road worthy certificate is obtained.

7.4 The fee is \$30 for the initial inspection and \$20 for each repeat inspection.

7.5 The repair cost before sending a vehicle for inspection is about \$500 for a vehicle below 10 years and between \$1,200 and \$1,800 for older vehicles.

7.6 It takes about a week for pre-inspection repairs. Normally, a vehicle has to queue for 2 or 3 hours at a time for an inspection.

7.7 All these add to the operation cost of lorry owners and reduce productivity as well. Perhaps something can be done about this.

(a) The queuing time for inspection could be reduced if the vehicle inspection centre increased its facilities or another vehicle inspection centre is set up.

(b) In the case of minor faults which are not road accident risks, the inspector could just advise the lorry driver to repair the fault but need not compel him to return for a repeat inspection.

(c) The Government could consider some kind of incentive scheme to encourage owners to replace their older vehicles.

## *8. Conclusion*

Our Association supports the Government in that action has to be taken where necessary and schemes have to be devised to regulate the traffic population. However, as businessmen, our members are concerned about keeping their operation costs to the minimum. Therefore they would be obliged if the authorities concerned could put more effort to consider non-monetary means to achieve its objective instead of always resorting to the money mechanism.

LEE KOK CHIN  
*Chairman.*

LIM QUEE HUAT  
*Hon. Secretary.*

## Paper 50

From: Mr Simon Lau Pak Wai,  
20 River Valley Grove #08-00,  
Singapore 0923.

Dated: 29th September 1989.

### LAND TRANSPORT POLICY

I refer to the above and would like your Ministry to seriously consider to curb car ownership rather than usage. There is no use to curb usage when the ownership keeps on growing, it has to be tackled from the roots, just like when you cut the grass it still grows, until the grass has been pulled out of the soil. I would like to suggest the following:-

1. To retain the PARF with an increase to fifteen years. Nowadays all vehicle are required to be inspected every year and therefore the vehicles will be in good working condition.
2. To increase the import duty of all vehicles to between 300% to 450% which will make the vehicles to be very expensive. There is no fear of them getting loan from finance company because the monthly installment will be very high if it is fixed to the maximum of four years for repayment. This will reduce new ownership and also can have a zero growth for vehicles.
3. To give incentive for those who kept their vehicles eligible for PARF, the import duty of the vehicle to be purchased when the old vehicle is scrapped be lowered between 20% to 40%, this will lead to car owners keeping their vehicles to themselves until it is time for PARF for those 1600 c.c. and below.

As for those above 1601 c.c., in order to be eligible for the incentive they are to produce two scrap cars. This will reduce the population of cars. Please note that for the incentive the range of c.c. can be also divided into three groups instead of two, with the play about of the number of scrap cars. For example, the first group is one to one exchange, the second group two scrap cars for one new one and the third group three scrap cars for one new one.

No doubt there might be a loss of revenue collection, as the Minister had said before that revenue collection is not the main subject but congestion on the road is.

Therefore, if the Ministry is serious about easing traffic congestion, taxing implemented for car usage at present is nothing but a source of additional revenue collection.

I look forward to a better system than taxing the present fleet of 250,000 vehicles on the road.

I will be available to be present should the select committee require me to do so.

SIMON LAU PAK WAI

---

## **Paper 55**

From: Dr (Mrs) Phang Sock Yong and Mr Anthony Chin,  
c/o Department of Economics and Statistics,  
National University of Singapore,  
Kent Ridge,  
Singapore 0511.

Dated: 5th October 1989.

Enclosed herewith is a paper for the consideration of the Select Committee on Land Transportation Policy.

PHANG SOCK YONG

---

### **AN EVALUATION OF CAR-OWNERSHIP AND CAR USAGE POLICIES IN SINGAPORE**

by Phang Sock Yong and Anthony Chin\*

Paper Submitted for the Consideration of the  
Select Committee on Land Transportation Policy

October 1989

#### **OUTLINE OF CONTENTS**

- I. TRANSPORTATION POLICIES IN SINGAPORE: AN OVERVIEW
  - (1) The 1960s: Impoverishment in Transport Policy
  - (2) The 1970s: An Integrated Approach
  - (3) Focus on Transport Infrastructure in the 1980s
- II. ANALYSIS OF CAR OWNERSHIP POLICIES
  - (1) An Aggregate Model of Car Ownership
  - (2) Analysis of the PARF
- III. ANALYSIS OF CAR USAGE POLICIES

---

\*The authors are from the Department of Economics and Statistics, National University of Singapore, Kent Ridge, Singapore 0511.



## I. TRANSPORTATION POLICIES IN SINGAPORE: AN OVERVIEW

### (1) *Impoverishment in Transport Policy in the 1960s*

During the 1960s, the government was more concerned with the pressing problems of housing and employment creation. Public transportation took a 'back seat', so to speak, and remained in the hands of the British-owned Singapore Traction Company Limited and the private sector, specifically eleven Chinese bus companies. The general standard of bus service was described by Rimmer as poor; speeds were low, schedules unreliable, and convenience and comfort minimal.<sup>1</sup> However, per capita incomes were very low as well.<sup>2</sup>

Partly as a result of the inadequacy of public transportation, private automobile and motorcycle ownership increased rapidly during the 1960s. There were 70,000 private motor cars in 1961 and by 1970, the number of motor cars more than doubled to 143,000 (see Table 1 [page B 114]). Over the same period, the number of public motor cars (mainly taxis) and buses increased by 64 percent.

The total route kilometres of public roads increased by 35 percent over the same period. However, local and collector roads have much smaller capacities, and are, for the most part, rarely taxed even during peak demand periods. The expansion of effective highway capacity is dependent on the provision of major arterial roads and expressways which are geared to meet flow requirements. The construction of major arterial roads during the 1960s, however, lagged far behind the increase in motor vehicles. There existed 214 km of major arterial roads in 1961 and by 1970, the figure was 240 km, a meagre increase of only 26 kilometres or 12 percent. The number of private cars per kilometre of arterial roads increased from 328 in 1961 to 594 in 1970. The result was serious traffic congestion, especially in the central area. With rapid relocation of the population to high-rise public housing estates in outlying areas and the concentration of employment in the central area, demand for adequate public transportation grew.

### (2) *Transport Policy in the 1970s: An Integrated Approach*

In 1968, the Ministry of Communications was formed and a transport advisory committee appointed to review the public transport system. The government's first attempts to improve public transportation services included efforts to improve the efficiency of the private bus companies. The bus companies were merged into four regional companies in 1971, and in 1973, the surviving three companies were merged to create the Singapore Bus Service (SBS) Ltd. SBS was made a 'public' company in 1978 and CPF members were allowed to use up to \$5000 from their CPF savings to buy SBS shares.<sup>3</sup>

At the same time a number of supplementary services was authorised. Under Scheme A, initiated in 1971, school buses (operated by individual operators), lorries, and private hire buses, were permitted to carry workers on a monthly

---

1 Rimmer, P.J., *Rikisha to Rapid Transit: Urban Public Transport System and Policy in Southeast Asia*, Pergamon Press Australia, 1986, at p. 120.

2 The per capita indigenous GNP was S\$2,862 in 1966 as compared with S\$5,092 in 1975 and S\$9,895 in 1985 (income figures are in 1978 dollars).

3 See Rimmer, *supra*, note 2, pp. 107 to 151 for a detailed description of the incorporation process.

contract basis. Scheme B, introduced in 1974, allowed school buses to provide peak hour services.

As part of the strategy to alleviate central area congestion, road taxes and registration fees for private cars were progressively increased during the seventies in order to discourage car ownership (see Table 2 [page B 115]). Since December 1975, the additional registration fee, as a percentage of the market value of the car, has been increased twice: in February 1980 to 150 percent and in October 1983 to 175 percent.

As an incentive for motorists to replace old cars, preferential registration rates were introduced in 1975 for a new car which replaced an old one (see Table 3 [page B 115]). The engine capacity group of the new car must not exceed that of the car being replaced. Since 1 January 1981, in order to qualify for PARF, the old car which is replaced has to be not more than 10 years old. When the ARF was increased to 175 percent in October 1983, the PARF was raised by 10 percent (see Table 3 [page B 115]).

In 1975, Singapore initiated an Area Licensing Scheme to reduce peak-hour congestion. Private cars carrying fewer than four persons entering the restricted central area between 7.30 am and 10.15 am are required to pay a fee. The fees are \$2 daily or \$40 monthly for taxis, \$10 daily or \$200 monthly for company registered cars, and \$5 daily or \$100 monthly for other vehicles. Buses, motorcycles and goods vehicles are exempted from paying. In addition, the 'Park and Ride Scheme' was evolved which included the construction of fringe car parks and the inception of the City Shuttle Service (CSS), a bus service operating between the fringe car parks and the central restricted areas. Parking charges within the restricted zone were also increased.<sup>4</sup>

The abovementioned measures, together with steep increases in energy prices during the 1970s, temporarily slowed down the growth of private car ownership. The number of persons per private motor car remained constant (at about 16) from 1974 to 1980. This was despite substantial increases in per capita incomes and the rapid lateral expansion of the urban area during the same period. The number of private motor cars grew by only 7 percent between 1974 and 1980, while there was rapid growth in other categories of vehicles (see Table 1 [page B 114]).

### (3) *Focus on Transport Infrastructure in the 1980s*

Measures to curb car-ownership, however, proved effective only in the short term. The number of private cars increased rapidly again in the early 1980s. Between 1980 and 1985, the number of persons per private motor car decreased from 15.8 to 11.6. The number of private motor cars increased by 45 percent during this five-year period, the growth rate being much higher than other categories of motor vehicles.

A major program of public roads construction and improvement was begun in 1979. Major arterial roads and expressways increased from 308 km in 1979 to 535

---

4 See Holland, E.P., and Watson, P.L., 'Relieving Traffic Congestion: The Singapore Area License Scheme', World Bank Staff Working Paper No. 281, June 1978 for evaluation of the scheme; and Wilson, P.W., 'Welfare Effects of Congestion Pricing in Singapore', *Transportation*, Vol. 15, No. 3, 1988, pp. 191 to 210.

km in 1986. The expressway network increased from 28 km in 1979 to 96 km in 1988. The rapid expansion of highway capacity in the 1980s thus more than kept pace with the growth of motor vehicle requirements. Extensive improvements in public roads, together with the Area Licensing Scheme (ALS) and fiscal measures to curb car ownership, has resulted in relatively congestion free streets.

In May 1982, a decision was made to begin building a \$5 billion Mass Rapid Transit (MRT) system; actual construction of the system commenced in 1984. This was after a decade of studies and deliberation which involved consultants from the United Nations, World Bank, Wilbur Smith and Associates, as well as the MRT Review Team.<sup>5</sup> The Mass Rapid Transit Corporation (MRTC) was established as a statutory board to undertake the construction of the system.

On 3 April 1984, a new bus company, Trans Island Bus Service (TIBS) Private Ltd was authorised to progressively take over Singapore Bus Service routes between the Central Business District and new towns in the northern and northwestern parts of the island (Woodlands, Sembawang and Yishun). This is part of the overall restructuring of public transportation to take into account the anticipated changes in mode choices.

In August 1987, the government created a private company, the Singapore Mass Rapid Transit (SMRT) Limited, which is owned by the Mass Rapid Transit Corporation, and which has the responsibility of running the system. The SMRT has an authorised capital of \$250 million and was incorporated with an initial paid-up capital of \$10 million from Temasek Holdings, a government investment holding company. Part of the system began operation in November 1987, and the whole system, comprising 41 stations and a route length of some 66 km, is expected to be completed by December 1989. A private company, Transit Link, was set up in November 1987 to oversee the integration of the Mass Rapid Transit with existing bus services through the use of a common bus-rail ticket.<sup>6</sup>

In November 1988, with two-thirds of the MRT system already in operation, the government announced further increases in road taxes (see Table 2 [page B 115]) and issued a policy statement to the effect that no more major roads and expressways would be built in the future, except for a few in the outlying areas. Short term measures to curb car usage which are under consideration include increases in petrol taxes and parking charges. In order that petrol pricing would be effective in reducing car usage, Parliament passed the Customs (Amendment) Bill, otherwise known as the Half Tank Bill, in April 1989.<sup>7</sup> The Bill makes it an offence for any Singapore-registered vehicle to leave Singapore without at least half a tank of petrol, the objective being to prevent motorists from purchasing their petrol from across the causeway.

On 1 June 1989, the ALS scheme was extended to the evening-peak between 4.30 and 7.00 p.m. on weekdays.<sup>8</sup> At present an electronic road pricing system for

---

<sup>5</sup> See Rimmer, *supra*, note 2, at pp. 141 to 142.

<sup>6</sup> The Straits Times, January 23, 1989, p. 17.

<sup>7</sup> See The Straits Times, 8 April 1989, pp. 1 and 17. In conjunction with the Customs (Amendment) Bill, the Road Traffic (Amendment) Bill, which makes it an offense to tamper with a fuel gauge or drive a vehicle with a faulty gauge, was passed on the same day.

<sup>8</sup> See The Straits Times, 1 June 1989 for details.

more optimal pricing of congestion is in the planning stage. The system is expected to be operational 5 to 7 years from now.<sup>9</sup>

## II. AN ANALYSIS OF CAR OWNERSHIP POLICIES

### (1) *An Aggregate Model of Car Ownership*

Several variables have been identified to test their influence on car ownership. The motorcar is regarded as both a consumption and investment good. As such changes or expectations of changes in transport policy and other economic variables will affect levels of car ownership. The following OLS regression uses data from 1966 to 1987, the dependent variable is the log of number of cars per capita:

$$\begin{aligned} \text{LCARSPON} = & -4.93 + 1.93 \text{ LYD} - 1.07 \text{ LEXPGS} - 0.48 \text{ LCOST} + \\ & (-1.39) (4.56) (-3.80) (-3.42) \\ & 2.01 \text{ LRDS} - 0.45 \text{ LPRICE} \\ & (2.98) (-2.79) \end{aligned}$$

$$\text{R-square} = 0.8865 \text{ F-Value} = 24.29$$

The independent variables are:

LYD = log of disposable income per capita:

$$(\text{GDP-CPF/P-income tax/P})/\text{population}$$

LEXPGS = log of per capita expenditure on other goods and services

LCOST = log of cost of car ownership:

$$(\text{car road tax} + \text{transfer fees} + \text{registration fees} + \text{motor vehicle special tax})$$

LRDS = log of total lengths of roads

LPRICE = log of average price of cars including import tax.

The coefficients of the independent variables in the above model have the correct signs and are all statistically significant. The model has a reasonably good fit (0.8865) and shows that price and cost elements exert marginal influences on car ownership as compared with other variables such as income.

A one percent increase in the price of cars (LPRICE) will lead to a decrease in car ownership per capita by 0.45 of 1 percent. A similar magnitude can be observed for increases in the costs of ownership (LCOST). Car ownership decreases by 0.48 of 1 percent for a 1 percent increase in the cost of car ownership.

In contrast, the magnitudes of influence of disposable income (LYD), total length of roads (LRDS) and expenditure on other goods and services (LEXPGS) are much larger. A one percent increase in LYD or LRDS will cause a rise in car ownership of almost 2 percent. A 1 percent increase in the expenditure on other goods and services will lead to a fall in ownership of at least 1 percent.

---

<sup>9</sup> See Sanford F. Borins, 'Electronic Road Pricing: An Idea Whose Time May Never Come', in *Transportation Research A*, Vol. 22A, No. 1, pp. 37-44, 1988, which describes Hong Kong's experiment with electronic road pricing.

The above results indicate that price measures have a smaller effect on car ownership as compared to other economic factors. This is confirmed through the small magnitude in the elasticity estimates of LCOST and LPRICE. Income effects and the impact of major roads and expressway construction feature significantly in the model. The latter result is one of the ironies of the new towns policy. The decentralization of the population to outlying new towns with the concentration of employment and retail outlets in the CBD has increased the need for commuting between the new towns and the CBD. The construction of an excellent network of roads and expressways to meet this need have resulted in a reduction of the generalised costs of travel.

The ownership of private cars increased by 15,314 in 1988 - a year that was characterised by increases in car prices as well as scrap car values. This has been a result of a number of factors:

- (i) Income effects exert an important influence on car ownership. With the economic upswing, the number of higher income earners have increased. Increases in real incomes together with cheap and easy vehicle loans have resulted in rising car ownership.
- (ii) The car is a prestige good in Singapore for many households. According to Scitovsky, 'Money income as a measure of one's success in life has the drawback that knowledge of it is seldom in the public domain. Therefore, to enjoy not only one's high income, but also the esteem it can secure, one must make it known through appropriate spending behavior.'" Housing consumption as a venue of 'appropriate spending behavior' is not available to 87 percent of the population which reside in public housing. Cars as well as maids become substitute status symbols for many households. Over time, these prestige goods can become established habits which are hard to break.
- (iii) The car is both a consumption and investment good. The system of Preferential Additional Registration Fee implies a demand for scrap cars which have resulted in an artificially inflated second hand car market. This is further analysed in the next section.

## (2) *Analysis of the PARF Scheme*

The PARF or discount scheme was introduced in 1976 with the dual objective of encouraging the replacement of old cars as well as controlling the car population. If an individual buys a new car and at the same time scraps an existing car (since 1981 the scrap car must not be more than 10 years old) he enjoys a discount on the ARF price.

However, the effectiveness of the PARF scheme as a measure to control the car population is subject to demand for car ownership remaining constant over time. For the car population to remain constant, the number of first time car owners must equal the number of existing car owners wishing to scrap their cars. Increases in real incomes have rendered the scheme less effective as a car control measure. Table 4 (page B 116) shows the number of private motorcars purchased

---

10 Scitovsky, Tibor, *The Joyless Economy* Oxford University Press, 1976, p. 119.

by ARF and PARF between 1976 and 1988. As can be seen from the data, since 1981, the number of ARF cars exceed the number of PARF cars in 1982, 1983, 1984 and 1988.

The system of PARF have partly resulted in an artificially inflated second hand car market thus making the purchase of a car an investment decision as well. A first time car buyer wishing to purchase a new car and making a decision as to whether to scrap a car will compare prices under the two situations. He will scrap a car provided that:

$$P_N(1 + ARFR) > P_N(1 + PARFR) + P_S$$

where

$P_N$  is the import price of the new car;

ARFIZ is the additional registration fee rate of 175%;

PARFR is the preferential registration fee rate which varies with engine capacity and

$P_S$  is the scrap car value.

This implies that the maximum price that he is willing to pay for a scrap car is:

$$P_S < P_N (ARFR-PARFR).$$

If market prices for a scrap car,  $P_S^*$ , is such that

$$P_S^* > P_S$$

then the car buyer will be better off buying at the ARF rate.

Increases in scrap car values (and second hand car prices) over the years (see Table 5 [page B 116]) have resulted in the car being regarded as an investment good as well as a consumption good. The rise in prices have been due to the following factors:

- (i) Increased demand for car ownership.
- (ii) Since 1981, only motor cars which are not more than 10 years old are eligible for PARF. The supply of scrap cars since 1981 is therefore determined by the number of new cars purchased ten years ago. Draconian measures to curb car ownership were imposed from the mid 1970s. Between 1974 and 1980, private car ownership increased by a mere 6.9 percent (see Table 1 [page B 114]).
- (iii) More than three quarters of motorcars in Singapore are imported from Japan. In 1985, the exchange rate was S\$0.9275 per 100 yen. By 1988, the yen had appreciated to S\$1.5713 per 100 yen. The maximum price that buyers of Japanese cars are willing to pay for a scrap car have increased correspondingly.
- (iv) With increases in income, there has also been a shift in taste toward quality cars. The number of Alfa Romeos increased from 1,126 in 1987 to 1,743 in 1988. (The appreciation of the yen has also contributed to a shift from Japanese to European cars.) The price that purchasers are willing to pay for a scrap car increases with the price of the new car purchased.

- (v) Since 1975, the ARF rate has been increased on two occasions: in 1980 to 150 percent and in 1983 to 175 percent - an increase of 75 percentage points. The PARF rate has only been increased once: by 10 percentage points in 1983. The effect of an increase in the difference between ARF and PARF rates is to result in a one time increase in scrap car values. During the early part of 1989, expectations of higher ARF rate or import taxes raised prices in the second hand car market. If the existing ARF-PARF system is retained, any increase in ARF rates should be accompanied by an equal or greater percentage point increase in PARF rates in order to reduce 'speculative' as well as investment demand for car ownership.

The present PARF system attaches a value to a 10 year old car which it would not have had in the absence of the discounts. If the PARF system is removed (i.e.  $PARFR = ARFR$ ) the effect would be to wipe out the asset value of scrap cars. This would, however, cause government policy to be viewed as dynamically inconsistent. If the ARF rate remains the same, the removal of the PARF system would result in a reduction in second car prices. The overall effect would be to reduce car prices which may result in an increase in the number of cars demanded. The removal of the PARF system, therefore, must be accompanied by an increase in the ARF rate.

The removal of the PARF system, however, will discourage the scrapping of old cars. Car owners may hold on to their present car until it falls apart. An increase in the number of cars demanded will thus be offset by the inelastic nature of the supply schedule for second hand cars. The removal of the PARF system must thus be accompanied by its replacement with a system of progressive (with age) road taxes for cars above 10 years of age.

Under conditions of fairly constant demand for car-ownership, the price discounts available under the existing PARF system is such that its effect on car ownership is similar to a quota system under which a car is scrapped for every new car purchased. These conditions prevailed in the late 1970s and during the recession years of 1986 and 1987. However, under conditions of rising incomes and therefore increasing demand for car ownership, a direct quota on demand would be necessary if the objective is to contain the car population at some pre-determined level. The economic (equity) and political implications of imposing any quota system, however, requires further study.

### III. ANALYSIS OF CAR USAGE POLICIES

The effectiveness of various measures to curb car usage is briefly analysed in this section using the results of a binomial logit model of journey to work mode choice. The model uses data from 6,500 work trips obtained from a 1981 Origin and Destination Survey conducted by the MRTC. The two alternatives were automobile (which includes drive alone, ride-sharing and trips by taxi) and bus (which excludes trips by company bus). Since the choice of journey to work by automobile

may not be available to non-vehicle owning households, the sample was stratified by automobile ownership status.

Tables 6 and 7 [page B 117] present the elasticities of demand for travel modes of auto-owning households which were generated by the binomial logit model. For automobile owning households, travel behavior was inelastic with respect to changes in auto operating expenses (-0.278) and parking costs (-0.002). The demand elasticities for auto with respect to bus transit times and bus fares were greater than unity (2.9 and 1.3, respectively). The income elasticity for journey to work by bus was -3.562 for workers from auto-owning households.

*Mode choice for workers from auto-owning households is elastic with respect to income and public transport times and costs, but inelastic with respect to auto operating costs. With rising incomes, measures to curb car usage by increasing auto operating costs will therefore not be effective without complementary policies to curb car ownership.*

*The elasticity of mode choice with regard to public transport times indicates that policy measures for decreasing car usage should focus on improving the efficiency of the public transport system. Measures to improve the efficiency of the public transport system (some of which are currently being undertaken) include:*

- (1) the provision of feeder services to MRT stations;
- (2) reduction in the uncertainty of waiting times for public transport;
- (3) reduction of in-vehicle times for buses through more point to point services;
- (4) increasing the comfort level of public buses through the use of air-conditioned buses.



Table 1: *Motor Vehicle Growth and Road Construction, 1961 to 1988*

	1961	1965	1970	1973†	1974†	1980	1985	1988
Private Motor Cars	70,108	104,729	142,568	187,972	142,674	152,574	221,279	237,801
Public Motor Cars	3,493	3,621	5,048	6,326	6,306	11,922	14,971	13,613
Buses	1,375	1,617	2,942	4,775	4,779	6,512	8,717	8,924
Goods Vehicles	14,613	21,365	34,119	41,805	36,424	78,020	109,596	108,477
Motor Cycles and Scooters	28,205	60,838	105,214	122,714	84,849	118,345	127,564	117,570
Total Motor Vehicle Registration	117,936	192,322	290,423	367,541	276,866	371,341	486,760	491,808
Expressways	-	-	-	-	-	39	73	96
Major Arterial Roads	214	222	240	248	250	313	435	500
Collector Roads	109	109	113	114	115	157	202	238
Local Roads	1,114	1,430	1,585	1,777	1,790	1,847	1,935	1,891
Total Public Roads (Route Km.)	1,437	1,761	1,938	2,139	2,155	2,356	2,644	2,810
PERCENTAGE INCREASE OVER PREVIOUS DATE								
Private Motor Cars		49.4	36.1	31.8	†	6.9	45.0	7.5
Public Motor Cars		3.7	39.4	25.3	†	89.1	25.6	-9.1
Buses		17.6	81.9	62.3	†	36.3	33.9	2.4
Goods Vehicles		46.2	59.7	22.5	†	114.2	40.5	-1.0
Motor Cycles and Scooters		115.7	72.9	16.6	†	39.5	7.8	-7.8
Major Arterial Roads and Expressways		3.7	8.1	3.3	0.8	40.8	44.3	13.6
Total Public Roads		22.5	10.1	10.4	0.7	9.3	12.2	6.3
Population (thousands)	1,702.4	1,886.9	2,074.5	2,193.0	2,229.8	2,413.9	2,558.0	2,586.2
TRANSPORT INDICATORS								
Persons per private motor car	24.3	18.0	14.6	11.7	15.6	15.8	11.6	10.9
Persons per public motor car	487.4	521.1	411.0	346.7	353.6	202.5	170.9	190.0
Persons per bus	1,238.1	1,166.9	705.1	459.3	466.6	370.7	293.4	289.8
Private cars per km of public road	48.8	59.5	73.6	87.9	66.2	64.8	83.7	84.6
Private cars per km of major arterial road and expressways	327.6	471.8	594.0	758.0	570.7	433.4	435.6	399.0
Public cars per km of major arterial road and expressways	16.3	16.3	21.0	25.5	25.2	33.9	29.5	22.8
Buses per km of major arterial road and expressways	6.4	7.3	12.3	19.3	19.1	18.5	17.2	15.0

Notes:

†From January 1974, the records on motor vehicles were computerised. The number of private vehicles was found to be considerably over-estimated. This accounts for the discrepancies in data before and after 1974.

Source: Singapore Department of Statistic, Yearbook of Statistics, various years.

Table 2: *Taxes on Motor Cars in Singapore, 1970-1989*

Item	Before Oct 72	Oct 72 Dec 73	Jan 74 Mar 75	Mar 75 Dec 75	Dec 75 Feb 80	Feb 80 Oct 83	Oct 83 Oct 84	Oct 84 1989
Import duty (%)	30	45	45	45	45	45	45	45
Registration Fee	\$15	\$15	\$15	\$15	\$15	\$1,000	\$1,000	\$1,000
Additional Registration Fee (% of market value)	15	25	55	55	100	150	175	175
Annual Road Tax for private cars (cents per cc)								
- up to 1000 cc	10	10	14	20	35	40	52	60
- 1000 to 1600 cc	10	12	15	25	40	50	65	75
- 1601 to 2000 cc	10	15	22	30	45	60	78	90
- 2001 to 3000 cc	10	20	25	40	50	70	91	105
- above 3000 cc	10	30	60	65	80	100	130	150
(as from 4 March 1975, company registered cars pay double these rates)								

Source: ROV Annual Reports, various years.

Table 3: *Preferential Additional Registration Fee Rates*

Engine Capacity	31 Dec 75 to 16 Oct 76	17 Oct 83 to present
up to 1000 cc	35%	45%
1001 to 1600 cc	40%	50%
1601 to 2000 cc	45%	55%
2001 to 3000 cc	50%	60%
Above 3000 cc	55%	65%

Source: ROV Annual Report, 1975 and 1983.

Table 4: *Registration of Motorcars by ARF and PARF (Individual Names) 1976-1968*

Year	ARF	PARF	Total
1976	694	6,561	7,255
1977	729	13,451	14,180
1978	1,143	15,429	16,572
1979	4,709	16,309	21,018
1980	7,004	21,206	28,210
1981	7,553	13,427	20,980
1982	15,021	13,405	28,426
1983	19,935	8,312	28,247
1984	13,992	6,390	20,382
1985	6,256	6,625	12,881
1986	558	6,964	7,522
1987	2,052	9,374	11,426
1988	13,844	10,403	24,247

Table 5: *Factors Affecting Scrap Car Values*

Year	Average Scrap Car Price	S\$ per 100 yen	1001-1600 cc ARFR - PARFR	Registration of 10 years ago	New Motor Cars Current year
1981	5,000	0.9581	110	16,544	20,980
1982	5,500	0.8618	110	16,197	28,426
1983	5,800	0.8903	110	22,095	28,247
1984	6,000	0.8987	125	11,510	20,382
1985	7,000	0.9275	125	6,262	12,881
1986	9,300	1.3010	125	7,255	7,522
1987	11,000	1.4595	125	14,180	11,426
1988	11,500	1.5713	125	16,572	24,247

*Table 6: Aggregate Demand Elasticities for Travel Modes for Auto Owning Households*

Explanatory Variable	Auto	Bus
Auto in-vehicle time	-0.077	1.226
Bus transit time	2.884	-0.299
Auto expense	-0.278	0.625
Bus fare	1.275	-0.179
Auto parking cost	-0.002	0.020
Income	0.181	-3.562

*Table 7: Predicted Changes in Market Shares of Travel Modes for Auto Owning Households (in percentage points)*

	Auto	Bus
Sample Frequencies	57.8	40.3
Change in Explanatory Variable		
(1) 1 minute decrease in auto in-vehicle time	0.3	-2.9
(2) 1 minute decrease in bus transit time	-3.9	0.3
(3) 10 cents increase in auto expenses	-1.1	1.7
(4) 10 cents increase in bus fares	10.4	-1.0
(5) 10 cents increase in parking costs	0.0	0.1
(6) \$100 increase in monthly income	0.8	-11.2

## Paper 56

From: Mr Toh Choong Fook,  
15 Lakme Street,  
Singapore 1545.

Dated: 4th October 1989.

I am writing to you as you are the Chairman of the Committee on Land Transport, currently seeking views from Singaporeans. My submission takes the form of an appeal. I appeal to your committee to consider the reasons why people use cars, and their need to use one, when considering ways to curb car usage and ownership.

I would like to draw your attention to the fact that to certain categories of people a car is a necessity in carrying out their work. One such category is Service Engineers like myself.

When I joined my company, Rank O'Connor's (S) Pte. Ltd., I had a company vehicle at my disposal to carry out my duties. After a few months they sold the vehicle (probably for scrap as it was quite old). I then had to go about by public transport.

Going about by bus was very inconvenient as I normally had to bring with me a set of tools, some spare parts, manuals, and some test equipment.

Even going by taxi is inconvenient. If I were to attend to only one customer a day it would be quite alright, but if I had to attend to a few in a day (which normally is the case) I will have to load and unload everything at every point of call. Furthermore, getting a taxi at around 4 p.m. to 5 p.m. is a headache as the taxis are in the process of changing shift and they would only go to certain locations or on the way to these locations. Since my working hours are up to 6 p.m., and some of my customers (e.g. medical laboratories etc.) work round the clock, this is still a period that I should be actively going about my work.

With all these hindrances naturally my productivity went down. After trying to cope with these hindrances for a month or two, I realised a car is a necessity. I applied for a car loan from my company and bought a car to go about in my work. Needless to say my productivity went up.

As I hear of all the proposals to curb car usage and ownership, the thing that worries me is that they don't seem to distinguish between those who need a car and those who want a car. It gives me nightmares to think that one day these measures may make it impossible to own and use a car. Then how can I carry out my work efficiently? And with the current level of disincentives of company ownership of cars (e.g. double the road tax as compared to private vehicle) how many cars will a company be willing to have for their staff to carry out their work?

It is hard to explain everything in a letter. If your committee so desires, I would only be too glad to appear before your committee to give more details and to answer questions.

TOH CHOONG FOOK.

---

## Paper 59

From: Mr Han Fook Kwang,  
4 Tavistock Ave,  
Singapore 1955.

I enclose an outline of my submission to the Select Committee for its consideration,

HAN FOOK KWANG,

---

1. Most Singaporeans want free-flowing traffic on the roads but are also unhappy with Government measures to tackle the traffic problem. That was the result of a recent Government survey. The question then is what Government policy will ensure free-flowing traffic yet make the least number of people unhappy.

2. It is accepted that the transport problem is a complex one. It involves public transport (buses, MRT, taxis), urban planning (central CBD versus decentralised CBDs), land use (how much land to allocate to roads, car parks, etc.) and, of course, policy on car ownership and usage. I shall confine my submission to car ownership and usage policies.

3. Past government policy has been a mix of ownership (ARF, PARF, road taxes) and usage (parking fees, petrol taxes, ALS) restraint measures but with the emphasis strongly on ownership, i.e., making it expensive for people to own cars.

4. The measures have been effective but the question is at what cost? Can it be sustained in the future? Is there a better way - equally effective but at lower cost.

5. The high political cost is because a large number of people have been priced out of owning cars. Yet as their incomes increase they aspire to do so. Unfulfilled aspiration leads to frustration and unhappiness.

6. It is possible to allow more people to own cars, yet discourage many of them from using their cars to congest busy roads at peak periods. It can be done using usage restraint measures such as parking fees and the ALS. Usage measures may be more effective and equitable because they tackle the problem directly - where there is congestion or the likelihood of congestion building up, they can be imposed.

7. Ownership measures, on the other hand, hit all and sundry. If used to curb localised congestion, which is what exists in Singapore today, they result in overkill. Many more people who would not have contributed to the localised congestion in question would have to be priced out of the market for cars. That is what causes unhappiness among some Singaporeans.

8. By way of illustration, the Government says that Singapore can only accommodate 350,000 cars beyond which severe congestion will hit major roads within a large part of the city. But with effective usage measures it will be possible to stretch this number further and keep congestion manageable.

9. Another important reason for increasing the cost of using rather than owning cars is that it makes alternative modes of transport for car owners such as buses and the MRT more attractive. Contrast this with the present situation: Having already paid so much to buy their cars, very few car owners are prepared to switch to the MRT. The economics are simply too unattractive. This will change if it becomes more expensive to drive, say, into the city. People choose between different modes of transport based on the costs, both financially and in terms of time saved. We need to change the economics of using cars so as to favour more efficient means of transport. Of course, this can be achieved by making car ownership expensive but it will be a most inefficient and blunt way of doing it.

10. In any case the Government is already committed to usage restraints by way of the ERP in five to seven years' time. The correct strategy, in the meantime, is to continue with usage measures until ERP comes on-stream. Ownership measures like further increases in ARF should be placed on hold. They are already high. If at all increases are necessary, they need be imposed only to keep up with increases in real incomes and inflation.

---

## ADDENDUM TO SUBMISSION TO SELECT COMMITTEE ON LAND TRANSPORT

### I. WHY USAGE MEASURES ARE BETTER THAN OWNERSHIP ONES

It is necessary to be clear why measures which affect how people use their vehicles are inherently more effective and equitable than those which affect ownership of vehicles. The advantages of usage over ownership measures are summarised below.

#### (a) Selective, Not Indiscriminate

Usage measures can be selectively applied in time and location to where the problem is. It attacks the problem directly and is hence more effective and equitable. A good example is the ALS which is applied only to vehicles entering the CBD during the peak travelling hours. Another good example is the higher parking charges in the CBD from 9 a.m. to 5 p.m.

It is not possible to be so selective with ownership measures which affect potential car owners equally regardless of their contribution to congestion. Measures such as ARF increases can of course be very effective but they are also inequitable and indiscriminate. Example: Let's say the PIE becomes congested and we need to make sure no more than 100 additional cars use it during the peak travelling hour. To achieve this target using ownership restraint, we need to discourage thousands of people from owning cars.



(b) *No effect on Value of Vehicles*

When a motorist pays to use the roads whether through parking charges or ALS fees, the charges are "used up". It is like paying for a service which in this case is for the use of the roads. What he pays does not add to, nor does it subtract from the value of his vehicle. This is as it should be.

An increase in ARF, on the other hand, affects the value of all existing vehicles significantly by increasing their values. This is undesirable for two reasons. First it confers a windfall gain on existing owners. Second, far from discouraging future purchases, it encourages those to buy early, before the next round of increases.

(c) *Usage Measures can be more Equitably Applied to Different Types of Vehicles*

For historical reasons, there are vast differences in the ownership taxes applied to the various types of vehicles in Singapore. There is ARF/PARF for private cars, a special ARF scheme for taxis and almost minimal ownership taxes for goods vehicles. From a transport viewpoint this is undesirable. It distorts the market, encouraging the buying of one type of vehicle against another. It is also inequitable because goods vehicle use as much if not more scope than cars. Any further increases in ARF/PARF for cars will increase the difference in the cost of these vehicles even more, further increasing the distortion.

Fortunately, usage charges have not been as similarly distorted. Parking and ALS fees are broadly similar for cars and goods vehicles. There is therefore greater scope here to make future adjustments more rationally.

(d) *Usage Measures can be more Transparent*

One difficulty with ownership measures is that the Government cannot announce it in advance for fear that people will buy in anticipation of the price increases.

There is no such drawback with usage measures. In fact they are more effective if the Government announces explicitly, say, a five year programme on how parking, ALS and petrol taxes will be adjusted. Potential buyers will then have a better idea of how much it will cost them in future.

Public policies which can be announced in advance so that people can prepare for it and not be surprised as a result are better than those which have to be kept under wraps until the last minute. This is especially so in the case of a policy which affects consumption and spending.

## II. THE PRESENT MIX OF OWNERSHIP AND USAGE MEASURES

The present mix of measures for cars are heavily weighed towards discouraging ownership rather than usage. The operating cost of a car is hence relatively low compared to its capital cost. By way of example take a typical owner of a \$60,000 Japanese car which makes, say, an average of three trips a day. The cost of each trip based only on the capital cost of the car, over a 10 year period, is about \$5.50. The more trips he makes, the lower the cost per trip. There is therefore little disincentive to use his car unless the usage costs which includes petrol, parking and ALS charges are relatively high.

This mix between ownership and usage has a significant effect on people's behaviour. It also affects their decision to use alternative modes of transport, if available.

We need to increase usage charges relative to ownership charges so that better economic choices are made between competing modes of transport.

As an example of how usage charges have lagged behind over the years, compare parking charges today with that almost 30 years ago. In 1960, it cost a motorist 50 cents to park in the city compared to \$1.60 today. Taking inflation into account the real cost of parking has not increased. In the meantime real incomes have gone up significantly so has the cost of land to provide those lots.

### III. HIGHER CAR POPULATION WITH MORE SEVERE USAGE MEASURES

One other compelling reason for more usage measures in future is that it will allow more people to own cars. In fact, the more severe the usage measures the greater the number of people who can own cars. What will be curtailed is their usage of those cars. And if indeed many people do aspire to own cars, then their aspiration can, to some extent be fulfilled.

### IV. WHAT USAGE MEASURES TO USE?

The advantages of usage over ownership measures are compelling. The question is what usage measures to use? Apart from ERP the following are recommended:

#### (a) *Parking Charges*

As explained above, real parking charges have not increased in Singapore since 1960 despite the significant increases in real incomes. We have therefore not really used parking charges as a usage deterrent. That is a pity because parking charges can be a good proxy for usage charges. There is a ready mechanism to do this via the surcharges which the URA imposes on parking lots in the city. This can be extended to areas outside the city if it is evident that the cars which arrive at these car parks have caused significant congestion on their way there. One example is say Jurong. An alternative to an ALS in Jurong is to impose a surcharge on parking lots there. This might relieve congestion along the PIE if a significant number of vehicles along it do in fact end up in Jurong.

#### (b) *ALS*

Extending the ALS to other vehicles was a step in the right direction. It illustrates the point made earlier that it is far easier to impose usage charges which are applicable to all vehicles than it is with ownership measures.

As to evening ALS, the better traffic option would have been to apply it to outbound vehicles. An outbound restraint would not only discourage through-traffic into the CBD but also discourage some from driving into it in the morning. The need for a more severe deterrence which an outbound evening ALS provides will be felt in the future as the vehicle population increases.

As to extending it to other areas, there is no reason why the ALS should not be extended to Jurong if indeed there is congestion along its approach roads. The advantages of this needs to be weighed against having selective gantries along the approach roads such as the PIE.

(c) *Petrol Charges*

Petrol taxes are less selective than either parking charges or the ALS in discouraging vehicle usage but they are still better than ownership measures. It has all the other advantages which usage measures have over ownership ones.

## CONCLUSION

A great deal more can be done to curb usage of vehicles than has been done in the past. To be effective, some of the increases may have to be quite substantial. The measures should be announced in advance say for a three to five year period. In the meantime ownership measures should be kept on hold without any further increases. The right combination of usage restraints will keep congestion manageable until the ERP comes on-stream.

## Paper 60

From: Mr Dennis Singham,  
Rodyk & Davidson,  
6 Battery Road #38-01,  
Standard Chartered Bank Building,  
Singapore 0104.

Dated: 6th October 1989.

I write on behalf of a Resource Panel consisting of the persons whose names are attached hereto and in our personal capacity set out the following representations.

In this connection, this Panel has focused its attention and makes the following recommendations on how best Singaporeans can be encouraged to leave their cars at home and to utilise the MRT system.

As a preamble to the following, the Panel would like to comment on one of the policies introduced by the Government as exhibited in the various schemes that have been adopted by the Government in restricting the car population in Singapore. In this connection, the Panel believes that the policy of the Government up to now has been to introduce measures designed towards discouraging and thereby restricting the car population. The Panel notes that notwithstanding the said restrictions introduced by the Government, details of which are not set out herein but which the Select Committee should be well aware of, this has not led to a curbing of the car population in Singapore. In effect there has been an increase over the years in the car population. The Panel strongly believes that the policy of the Government in attempting to curb the car population in Singapore in itself is a wrong policy to adopt. The Panel believes that to some extent this attempt by the Government to restrain the car population has led to a negative response by the people of Singapore which negative response has been exhibited in frustration leading to possible disgruntlement with the Government, negativeness towards Government policies and possible migration of Singaporeans overseas. With regard to the latter, the Panel recognises that the Government's policy of curbing the car population is not the sole or main reason why Singaporeans choose to migrate. The Panel believes however that it is one of many reasons why certain sectors of the population have harboured intentions of migration.

The reason why the Panel believes that the above policy is wrong is because a motor-car in Singapore unlike in the West is looked upon by the majority of people as being a status symbol and evidence of success. To use a colloquial phrase, the ownership of a motorcar to the majority of Singaporeans, who border on being able to afford a car at the moment, look upon the car as evidence of having "arrived" in society. To some Singaporeans, the car is an urgent tool for one's occupation. To such people, any measure designed towards increasing the costs of maintaining a car is looked upon to some degree as depriving them of an opportunity to earn a living in the way that they may choose to do so. To such people, the car is a

necessity. To some, the car is looked upon as being the cheapest form of transportation for a family consisting of parents and three children. To the other sector of people, who own a car which is not looked upon as a luxury or a necessity, the ownership of a car is just another phase of their lives.

The Panel believes that there is absolutely no reason why there should be a definite quota on the number of cars that should be permitted in Singapore.

The Panel believes that it is all a question of economics, priority of needs and pollution. From an economics point of view, there may be a necessity to curb the car population because in an island state like Singapore where land is scarce, to build roads which could otherwise be used for housing and other social amenities may represent an economic waste of land resources. This may be true to some extent. However, if one considers the alternatives to surface roads and looks at the possibility of underground tunnels and overhead bridges, there may not be such an urgent need to restrict the quota of cars to a certain number.

With regard to the question of priority of needs, it basically boils down to what a Singaporean wishes and the inconveniences that he would be prepared to bear within his list of priorities. To a Singaporean whose priority is to own a car he may be prepared to bear the inconvenience of traffic congestion, the lack of available space for recreation and other social amenities. Thus, the Panel believes that there should be no quota placed on the car population in Singapore. Any Government policy geared towards this would lead to resentment, frustration and a negative attitude towards the policy makers.

With this preamble in mind, the Panel now looks at the various options open towards encouraging Singaporeans to leave their cars at home and to increase the use of the MRT system.

Not in order of priorities are the following:-

*(a) Public Campaign*

The Panel believes that Singaporeans are well accustomed to public campaigns and have responded well to serious campaigns. The Panel believes that there should be a deliberate attempt made to encourage Singaporeans to re-think the psychology of retaining their cars at home and using the MRT system. In this connection, the Panel believes that if the Government adopts a campaign of say for a month to deliberately publicise, encourage and make known the conveniences of the MRT system there would be converts. Education through a campaign as shown in other campaigns will produce results. The Panel believes that to date there has been no deliberate attempt to campaignise the use of the MRT system.

*(b) Better Quality Buses*

Some of the resentment by those who currently travel to their place of work in cars complain about the quality of our buses. By quality, reference is just not made to the quality of the buses per se but this includes comfort in travelling in such buses. The buses, apart from being pollution-filled, noisy and, to some extent,

untidy, discourage the use of them by people who own cars. Thus, the Panel believes that if a deliberate policy is adopted towards air-conditioning the buses, providing better quality seats and, to some extent, subsidising the cost of bus travel from the collection of road tax, this would lead to greater use of public buses.

An attitude adopted by Singaporeans, who are slowly but surely becoming very brand conscious, is that it is not fashionable to be seen in buses. This attitude is not exhibited in the case of the use of the MRT. It is considered uncommon to see someone, say, a junior executive, to be seen wearing a tie carrying a briefcase and travelling in an SBS bus. If seen by his contemporaries, there would be a degree of social snobbery. If the buses were better equipped, the Panel believes that the social snobbery would wear away.

Whilst on this topic, perhaps emphasis could also be placed on providing better quality bus stops which provide shelter not just against the sun but also against the rain and the other discomforts experienced whilst waiting for a bus. Perhaps, our bus shelters should be better equipped and designed towards enhancing their image.

In the more frequented bus stops other than at terminal points, bus-stops could be built to provide for small booths selling items like magazines, story books, flowers and other items of common interest. The kiosk-type of concept may appeal to the younger generation.

#### (c) *Feeder Service*

At the present moment, the Panel knows that a feeder service was introduced in the Holland Road area. The observation of the Panel to this feeder service is that the quality of the buses left much to be desired. They were noisy. They were big and were generally uncomfortable. The Panel believes that it will be a useful advantage if smaller buses were used. The Panel has in mind combi-type buses. The Panel believes that such buses would be able to go through narrower streets in public housing estates with less inconvenience. Such buses could be made to travel more frequently, provide less noise to the neighbourhood, add convenience to the neighbourhood and be pollution-free. If such buses were air-conditioned, it would be an added advantage. The advantage to be gained from such feeder services can be further accelerated if the feeder service were to be run at a nominal cost.

In this connection, the Panel believes that the Government should have as one of its objectives a greater ploughing back of money collected from car owners to the commuters. At the present moment, the money that has been collected to a large extent has been ploughed back towards improving the quality of our roads in Singapore. The Panel believes that it should not be limited to this alone. Part of the collection can and should be used towards subsidising the feeder service, better quality buses and the like. Since public transport is deemed to be of major importance to any society or commuters, it may be pertinent to question whether there is a major need to subsidise public transport. In a city state, public transportation is often a necessity and the Government's avowed policy of not subsidising activities other than public housing, health and education could mean that the costs of transportation will continue to be borne by commuters. Indeed, the Panel believes that the private vehicle owners may question whether there should not be a transfer of revenue gathered from them to assist or stabilise the costs of public transport.

The feeder service should operate on a regular basis and should travel to a time-table. The bus driver should be encouraged to be punctual. A commuter who has to wait 15 minutes for a feeder service would almost naturally object if the journey by car is only going to take 25 minutes. If the feeder service buses were to operate punctually and a commuter has to spend less time waiting for a feeder bus, this would certainly encourage greater use.

Feeder bus service should operate from a housing estate directly to a MRT station. If possible it should be operated on a door-to-door basis. At the present moment, the Panel recognises that there is no covered shelter between a bus station and an MRT station. Thus, the feeder service which transports a passenger from the bus stop closest to his home to an MRT station should be sheltered.

*(d) The provision of car parks closer to MRT stations*

The Panel recognises that there are no car parks close to MRT stations. As an illustration, there is no car park space available to the MRT station at Novena. Yet the Novena station caters to a large number of people who live within its vicinity. The Panel believes that if the land area around select MRT stations were to cater for multi-storey car parks, this would encourage greater use of the MRT.

The Panel recognises that here once again there should be a fair balance of land use. Perhaps with this in mind, such car parks can be designed for diverse use, for example, a car park which contains hawker stalls, small shopping booths and kiosks may provide an attraction for people to park their cars at the car park and to ride on the MRT whilst at the same time attending to their daily shopping needs.

*(e) Car Pick-up and Drop-off Points*

The Panel observes that at the present moment there are very few MRT stations that provide a spot for pick-up and drop-off for passengers. If such facilities were provided, this would encourage the kiss-and-ride concept.

*(f) Improve MRT services*

MRT personnel should be encouraged to be user-friendly to commuters. Without describing the present system to be user-unfriendly, the Panel believes that if MRT personnel were to be encouraged towards being more friendly and more accommodating towards the needs of commuters, this would encourage greater use.

*(g) Shuttle taxi service*

The Panel considers that permitting taxis to pick up passengers along housing estates and to transport them to the MRT stations will be a useful incentive. The initial cost of hiring a taxi at the moment to some extent discourages the use of taxis that ply housing estates to get to an MRT station. As taxi drivers are not permitted to pick up more than one fare long the route, this discourages its use. The Panel believes that if taxi drivers were permitted like in the old days to pick up more passengers along the route, this would encourage commuters to share the cost of hiring a taxi to get to an MRT station. In this connection, perhaps taxi drivers who wish to ply within a housing estate close to an MRT station could be encouraged to do so by permitting them to pick up passengers along the route to an MRT station.

(h) *Cheaper parking in public housing estates*

The Panel observes that at the present moment, car parks in public housing estates tend to be empty during working hours. To encourage the use of such car park spaces which are close to MRT stations, the introduction of cheaper parking, say from 8 a.m. to 6 p.m., may encourage greater use of such places and a convenient alternative to the construction of multi-storey car parks close to MRT stations.

(i) *Walkways*

Covered walkways should be introduced from housing estates to nearest MRT stations.

(j) *Multi-Fares*

The Panel observes that if a multi-fare system was introduced whereby a commuter is permitted to pay once for a journey that covers the feeder service as well as the MRT, this would encourage greater use of the MRT.

(k) *Subsidising parking*

The Panel believes that if parking rates are subsidised in public housing estates during peak hours so that residents are permitted to leave their cars behind, this would encourage greater use of the MRT.

DENNIS SINGHAM

LIST OF MEMBERS ON RESOURCE PANEL

- (1) MR LIM KLAN SENG  
*Mobil Oil Singapore Pte Ltd*  
*(Planning & Supply Department)*
  - (2) MR DENNIS SINGHAM  
*Advocate & Solicitor*  
*Messrs Rodyk & Davidson*  
*Singapore*
  - (3) *Others.*
-



## Paper 63

From: Automobile Association of Singapore,  
336 River Valley Road #03-00,  
AA Centre,  
Singapore 0923.

Dated: 7th October 1989.

We are pleased to enclose herewith our submission to the Select Committee on Land Transport.

NG SER MIANG,  
*President.*

---

### SUBMISSION BY THE AUTOMOBILE ASSOCIATION OF SINGAPORE TO THE SELECT COMMITTEE ON LAND TRANSPORT

#### I. RELEVANT TERMS OF REFERENCE

1. The Automobile Association of Singapore (AAS) is making a submission to the Select Committee on Land Transport on two of its terms of reference:

- (a) Examine the need for measures to curb road usage and to assess the effectiveness and appropriateness of measures currently in force.
- (b) Examine the current policy for controlling the population of motor vehicles.

2. In this submission AAS focuses its attention on controlling usage of cars that contribute to congestion rather than controlling car ownership.

3. AAS also submits its comments on some of the current measures which in its opinion need review.

#### II. SUBMISSION OF AAS

1. With growing affluence and rising standard of living, many Singaporeans aspire to own cars as one of the improvements to their quality of life. The Government must accept the fact that car ownership is a natural aspiration of its people.

2. Singaporean motorists generally accept that severe congestion on roads is not acceptable since it affects our economy adversely and gives diminishing returns to the benefits of owning a car as congestion worsens. However, opinions differ as to what is an acceptable level of congestion.

3. Since an efficient land transport system for movement of goods and people is vital to the well being of our economy and since roads are built from our scarce

land resources, restraint measures that are too harsh which result in the under-utilisation of roads are also costly and undesirable. Busy roads are good; empty roads or congested roads are both bad.

4. Owning a car does not necessarily result in congestion but using it on congested roads contributes to congestion. Congestion only occurs when vehicles using the same stretch of road at the same time in the same direction exceed the road's capacity.

5. The current ARF/PARF system though effective in controlling car population when it was first implemented is now giving diminishing return. It has distorted the prices of cars and as a result variable operating costs have become only a minute fraction of the capital cost of owning a car.

6. The current PARF policy has also resulted in second-hand cars being a good speculative investment. Measures to continue controlling car population growth will have to be more draconian, but is likely to be less effective and unacceptable.

7. Suggestions to use quota system or tender system to check car ownership distort the market forces of supply and demand. It will inevitably result in higher car prices and windfall for some.

8. While the public must learn to accept that there is a limit to the number of cars in Singapore, this limit is best left to the market forces to determine. There is a natural cap to the maximum number of cars e.g. disposable income of each household, availability of overnight parking, etc.

### III. RECOMMENDATIONS

1. AAS recommends the adoption of a long term policy that balances between the aspiration to own cars and the need to avoid an unacceptable level of congestion.

2. The policy should focus on controlling car usage that contributes to congestion rather than the curbing of car ownership.

3. The principle of this policy is that a road user should pay according to the level of congestion that he is contributing. If his usage does not contribute to congestion then he need not pay a congestion price. Congestion price is set to ensure that vehicles using the same stretch of road in the same direction at the same time match the capacity of that road.

4. The long term policy should incorporate the following:

- (a) A congestion pricing system that is flexible and that allows maximum usage of roads without an unacceptable level of congestion. It must be emphasized that pricing should aim at maximising road usage; overpricing that will result in empty roads should be avoided.
- (b) A real time information system that gives advance notice to motorists on congestion levels and congestion prices so that they can plan ahead and avoid congested roads. This could come in the form of electronic road signs.

5. With the introduction of congestion pricing, the following should be reviewed:

- (a) Once the congestion pricing is implemented, the present ALS will become redundant.
- (b) Road tax should be reduced to a basic tax to cover the cost of normal maintenance of roads and related services.
- (c) ARF which was originally introduced to discourage car ownership should be reduced so that prices of new cars will be at realistic levels. In this case, the operating cost will become relatively higher compared to capital cost so as to discourage indiscriminate use of cars.
- (d) As the PARF is linked to ARF its value will be reduced in tandem with the reduction of ARF. Other incentives can then be introduced to encourage replacement of old cars, this together with ARF and compulsory inspection of older vehicles will ensure that cars in Singapore will be of a standard and quality reflecting the progress of our country.

6. In the interim, the following measures can be adopted:

- (a) The current ALS is a form of congestion pricing although less sophisticated. It should be continued with greater flexibility until a more sophisticated form of congestion pricing can be introduced e.g. Electronic Road Pricing, which has the flexibility of pricing according to different levels of congestion.
- (b) Define what is an "unacceptable level of congestion" with due consultation with the motoring public and publicise the accepted definition.
- (c) Monitor and publicise the level of congestions at critical areas: Educate and create public awareness on congestion problems so as to gain understanding and co-operation of the motorists.
- (d) Give ample advance notice of restraint measures to be introduced so that the public are not caught by surprise. This will also help eliminate unwarranted speculation and reduce negative public reaction.

#### IV. AAS' COMMENTS ON SOME EXISTING MEASURES

1. Of immediate concern to AAS is the need to shift the ending time of the evening ALS from 7.00 pm to 6.00 pm. This is logical and desirable as the first wave of CBD traffic leaving office for homes would have cleared CBD by 6.00 pm. Allowing other vehicles to pass through CBD after 6.00 pm will have the positive effect of easing pressure on the ring roads. Impact of evening CBD on commercial activities such as shopping, restaurants in CBD would be reduced.

2. While increasing parking charges in CBD helps to discourage some cars from going to CBD, it may be worthwhile to consider introducing free parking after the evening ALS to bring back more life in the CBD after office hours.

3. The latest round of 100% increase in HDB car park fee merely increases the costs of car ownership to residents of HDB flats and does not help in reducing

traffic congestion. It also caught most of them by surprise. AAS recommends that the relevant authority reduces the increase by 50%. If there is a need to reinstate the other 50% then advance notice of one year should be given to allow people that will be affected ample time to make necessary adjustment. In future, if it is necessary to introduce such increases it should be done gradually and with ample advance notice.

---

## Paper 64

From: Mr Christopher Herbert,  
Controller, Marine Operations,  
Seamost Technical Services Pte Ltd,  
17, Tuas Avenue 3,  
Jurong,  
Singapore 2263.

Dated: 4th October 1989.

In response to the publicised request for views and submissions relating to various aspects relating to land transport and its operations within the Republic I respectfully wish to submit the enclosed views for the consideration of your Committee. I have made certain amendments and additions to the submissions I made to your Committee on 20 September 1989.

I appreciate that you would prefer to receive fuller indepth studies of the various problems than the submissions I have prepared. However as I have been a road user in Malaya and Singapore since 1951, during which time I have owned 23 vehicles and driven over one million kilometres, I feel I can claim to be reasonably familiar with traffic conditions and factors affecting them.

I have made suggestions relating to two of the areas on which your Committee has invited views of members of the public. These are:

Use of car pricing or a quota system to control the car population.  
Commercial vehicles.

With regard to my submissions regarding commercial vehicles, as my suggestions relate to the operation of these vehicles I am not sure if this falls within the terms of reference of your Committee. If they do not, please disregard this submission and accept my apologies for bothering you with them.

Regarding the personal particulars which were requested from your correspondents; I am a British subject/UK citizen; I am a permanent resident of the Republic having first arrived in January 1951; I am presently employed by Seamost Technical Services P/L as Controller, Marine Operations. It is a company providing various marine services in association with Shell International Marine Ltd and Texaco Marine Services Inc. This is a company I was invited to establish last year after I completed a two year contract with Sembawang Maritime Ltd. Prior to 1986 I was employed by Selco Singapore P/L in various capacities for 23 years; My occupation is salvage master/mooring officer.

I trust that my submissions may be of interest and possible value.

CHRISTOPHER HERBERT.

## SUBMISSION A

### *The Use of Car Pricing or a Quota System to Control the Car Population*

The steady increase in the price of cars, both for private and company use, over the last fifteen years has not materially affected the growth in the numbers of these vehicles in use in Singapore.

I do not have access to full details of vehicle registrations for this period. Study of the figures given for the period 1980-1988 which were published in the "Straits Times" for Tuesday, 29 August however shows that the major drop in the registration of new vehicles occurred during the period of economic downturn, 1985 - 1987. (Attachment: A/1\*)

This appears to indicate that the gross amount of available money affects car population growth and not the actual prices of the vehicles. It is a fact that ownership of a car is regarded by many people, in Singapore as well as most other countries, as a symbol of status and not just a necessity for transportation in connection with the owner's occupation.

Resulting from this, if potential owners have access to sufficient funds they will buy cars.

A major factor that affects the gross amount of available money for the purchase of luxury items (possessions that are not essential for earning a living) is the availability of easy credit. This method of obtaining the funds to purchase cars has become much easier over the past 15-20 years.

Prior to the early 1970's I think I am correct in stating that the terms for hire-purchase of cars were regulated. I know that when I bought a car in 1967 (the only time I have done so on hire-purchase) I had to put down 20% of the total price and pay the balance within 24 months. These were the lowest terms that the vendor could offer.

This situation has now slackened to the point where financing organisations are openly offering terms as follows:

New cars: Up to 90% financing; up to six years to pay.

Used cars: Up to 90% financing; up to four years to pay (apparently negotiable)

Interest payable usually appears low, but if levied on a flat basis becomes very much higher for a long term agreement. (Attachments: A/2-6\*)

The availability of easy credit to purchase cars has now apparently become even simpler. At least two of the agents for new cars are offering loans to cover the initial down-payments. One of these companies openly advertises "You need not pay any cash in advance." The other company offers 85% financing over five years, this is arranged through a finance company. In addition they offer a separate interest-free loan to cover the down-payment. (Attachment: A/7, 8\*)

---

\* Not reproduced.

I believe that one reason for this easy credit availability is to enable used car dealers to sell vehicles for further use which would otherwise be scrapped. Equally the system benefits the importers of new cars because it helps to maintain a pool of used cars which are then available for PARF purposes for new car buyers. Either way, it serves to increase the car population. The vendors of both new and used cars make no contribution to the costs of providing the roads and other facilities necessary for the operation of the vehicles they sell.

Basically I submit that if the availability of credit for the purchase of both new and used cars could be discouraged, then this would rapidly lead to a reduction in the car population. This discouragement could be carried out in two ways;

Making a reasonable down-payment a condition of any hire-purchase agreement, without a back-to-back loan; and

Reducing the maximum period for any such agreement to, say 2 years for used cars and 4 years for new vehicles.

Such a restriction would probably make the purchase of a car more difficult for people who require them for their work. This however could be overcome by encouraging companies employing such persons to provide either loans for such purchases or company owned vehicles, provided they were essential. This would have the added benefit of discouraging "job-hopping".

I have attached for your reference copies of several advertisements\* from organisations that offer easy credit.

I submit that it would be a good thing for the nation as a whole if people were encouraged not to purchase things until they can afford them, instead of "Buying Now, Paying Later."

Although not directly affecting the price but linked to the ownership of cars is the question (and cost) of parking the vehicles in the vicinity of the owners' homes.

The HDB has stated that it does not consider itself responsible for making parking lots available to residents who own cars. The present system of selling season parking is not very effective as any car owner who does not obtain a season permit merely parks his vehicle on any convenient open space or side road.

Residents of private houses and apartments who park their vehicles inside their properties are doing so on land which they either own or rent. They are therefore indirectly paying to park. However car owners who park on public roads outside their residences are doing so free.

I submit that all car owners should have to provide evidence of having space to park their vehicle(s) at their residences before being allowed to own a vehicle.

This would necessitate the introduction of paid parking on all roads where either double yellow or single white lines did not prohibit parking. It would also mean that HDB car parks would have to be reorganised to enable car owners to lease lots for the period of their vehicle ownership. This could probably be best achieved by letting all the parks be administered commercially.

I realise that this restriction on ownership will not be popular but it seems rather inconsistent to require all car owners to pay to park when away from home

---

\*Not reproduced.

but only some to have to do so at their residences. However in a country where land is both scarce and expensive I feel that owning and operating a car should cover all the costs and not just the obvious ones.

Another factor, not related to pricing but which encourages the ownership of cars, should, I submit, be actively discouraged. This is the offering of cars as prizes in competitions, most of which require absolutely no effort on the part of the participants. I attach an advertisement for such an offer. This one does not even state that participants "may" win. The wording states "and win". (Attachment: A/9\*)

## SUBMISSION B

### *Commercial Vehicles*

The ownership of commercial vehicles should, I submit, also be restricted to individuals or organisations that have sufficient parking space for them when not in operation. There are examples everywhere in residential areas, both HDB and private, of commercial vehicles being parked in places for which the owner incurs no cost. There are also many cases where commercial vehicles are parked in unsuitable locations. I attach copies of the relevant pages from the manual for truck drivers for your information. (Attachment: B/3\*) These describe some of the steps taken in the United Kingdom "designed to control the environmental nuisance caused by indiscriminate overnight parking."

Obvious examples are the number of container trailers that are parked at night, unattended and unlit in side roads. Some are even parked in bus stops or on construction sites.

I suggest that parking of commercial vehicles during non-working hours should only be permitted in areas designated for the purpose. I realise that the costs of preparation and maintenance of these parks will have to be borne by the vehicle owners. However as the road tax on a 20 foot container chassis is only \$120.00 for 12 months I feel that the owners can afford, and should, make a greater contribution towards the cost of the land they occupy.

Only 300 units of the 40 foot trailers would occupy one hectare. This is without space to manoeuvre. As there are over 5,000 trailers to various sizes registered in Singapore this indicates an area of about 12 hectares of space occupied for a return of about \$8.00 per square metre per year, based on the current rate of road tax. This does not compare very favourably with other land rental rates.

If this rough and ready method of estimation is applied to all commercial vehicles in Singapore then it would seem that this segment of the road vehicle population does not make a realistic contribution towards the costs of the roads and land utilised.

---

\*Not reproduced.



The sizes, types and numbers of commercial vehicles that are operated on Singapore roads have all increased enormously over the last 20 years. During this period the road system has also been developed to an extremely high standard. However the one aspect of commercial road transport that has not been brought up to the same modern standard is the manner in which the vehicles are operated.

Specifically, the standards and employment conditions of the drivers.

In this context I am not referring to the drivers of the large number of light goods vehicles in Singapore. Many of these are in actual fact being used as personal transportation instead of private cars to avoid incurring high road taxes.

I wish to draw the attention of the Committee to the difference in drivers' conditions between Singapore and, for instance, in the EEC. Although the regulations I am citing apply to vehicles with a gross weight in excess of 3500 kgs, I feel that some of them could, to advantage, be applied to smaller vehicles.

In Singapore, as far as I am aware, there are no regulations restricting the hours that a person can drive a vehicle in any one day. In addition many drivers, particularly those who are employed to drive dump trucks and container prime-movers, are paid according to the distance and number of trips they make. This has resulted in the sort of situation that can be seen all too frequently, of two or more vehicles from the same organisation speeding so that the drivers can achieve a fast turn-round. In the case of dump trucks this has been aggravated by replacement of the older vehicles of about eight tonne capacity by the much bigger 10 wheel units with a GVW of 20 tonnes.

A further factor that, whilst improving the drivers' personal environments and working conditions, has tended to isolate them from traffic conditions is the almost universal adoption of air conditioned cabs and the installation of stereo sets. In the hot, dusty conditions that most of the dump truck drivers have to tolerate, I consider that the air conditioning of their cabs is excellent. However as all their journeys are short I consider that the use of stereo sets which prevent the drivers' attention being concentrated on traffic conditions should be banned.

In the EEC, as well as many other countries, the hours of driving that a person may complete in a day are specified by law. I attach copies of the relevant pages from a manual for truck drivers for your information. (Attachment: B/1\*) Some of the sections relate to international journeys. Although these would not apply to Singapore drivers engaged on domestic journeys, I suggest that they could apply to drivers from Malaysia or Thailand who arrive in the Republic after long almost non-stop journeys. They could also cover the drivers of coaches. The recent fatal accidents in Malaysia involving these vehicles emphasise this.

Most vehicles over 3500 kgs GVW in the EEC also have to be fitted with tachographs to record trip times and speeds. I suggest the Committee could consider if such a requirement would be an advantage in Singapore. It is after all only an extension of the requirement for the fitting of speech warning devices to light goods vehicles. This was introduced in Singapore and has resulted in some

---

\*Not reproduced.

reduction in the accident and traffic offence rates for this class of vehicle. I attach copies of the pages from the same manual that cover the installation and use of tachographs for your information. (Attachment: B/2\*)

I submit that the Committee could consider these points.

---

\*Not reproduced.

## Paper 68

From: SAFRA Team A,  
c/o Executive Director,  
SAF Reservists Association,  
Singapore.

Dated: 16th October 1989.

### PREVENTION OF TRAFFIC CONGESTION IN SINGAPORE RECOMMENDATIONS AND MEASURES

#### *Introduction*

1. There are two main reasons why it is felt that the government should now shift its focus from discouraging ownership of cars to discouraging the use of cars:-

- (i) Increase in the number of vehicles does not necessarily result in increased congestion on our roads.

While there was an increase of 4.4% in vehicles on our roads between 1987 and 1988, the average speed of vehicles on our roads has either remained level or as in a number of cases, actually gone up. The only exception to this, appears to be a stretch of road from Guillemard Circus to Tanglin, where traffic problems appear localised.

The growth in vehicular population therefore does not necessarily and materially affect levels of traffic flow. It is not the number of cars owned, but rather the time it spends on the road that contributes to congestion. A car sitting idle in a car park does not contribute to traffic congestion on the roads.

- (ii) The relative abundance of expensive cars, and the number of cheaper cars adorned with expensive fittings suggest that the perception of the quality of life in the realm of transport may not be as simple as just providing means of transport from A to B. In short, cars are bought not just because of physical needs alone. There are more persistent factors that influence the decision on whether the purchase of a car is justified. These relate to the perception of the quality of life by our increasingly affluent population.

Putting a car out of the reach of our affluent young could well lead to a disenchantment with the quality of life Singapore has to offer. Continuing emphasis on making a car very expensive to own, is likely to disillusion them and could well contribute to talented young Singaporeans emigrating elsewhere. This is obviously something that must be stemmed if possible.

2. Generally, we feel that the present policies of curbing car ownership is sufficient and that there is, presently, no urgent need to add further measures aimed at this. The measures of restraint should now be focused on car usage. However, should a situation arise that raises a need for further restraint because of

serious congestion, the option of restraint through car ownership should be kept open.

### *Fiscal Disincentives*

3. Fiscal measures should, in principle, therefore be geared towards controlling the usage of vehicles.

4. Policies should be aimed at the following objectives:

- (a) discourage usage of cars in areas of potential/actual congestion; and
- (b) encourage the use of public transport.

5. Fiscal measures may be broadly categorised under the following headings:

(i) *Area Licensing Scheme*

The scheme has been working well and is internationally recognised as a success. It is a good interim measure pending the implementation of electronic road pricing. If congestion should arise in the immediate future, there is no reason why the scheme cannot be expanded upon to further its aim.

The morning ALS has succeeded to the extent that many drivers consciously bypass the CBD area.

The evening ALS should impose a charge for those leaving the CBD as they are the drivers who contribute most to the congestion if any.

### *Evening ALS*

As stated earlier, we feel that any levy/charge during an evening ALS should be on vehicles leaving the ALS during the evening peak hours, not on vehicles entering it. The reasons are as follows:

- (a) the congestion problem in the evenings is faced on roads leading out of the CBD, not into it;
- (b) people driving into the CBD in the evening are likely to be heading for the shopping and entertainment spots. Discouraging their entry is likely to have an impact on the policy to maintain life in the city area after office hours; and
- (c) persons using the CBD as a through pass will be caught by the evening ALS since they are likely to leave the CBD during the peak hours.

An evening ALS can be used to stagger the time of departure of vehicles.

Unlike the morning ALS where escape routes are required to enable any unsuspecting driver to bypass the area, none is needed for the evening ALS. Providing escape routes would be tantamount to keeping the vehicles on the road in the city area, which is not something to be encouraged.

Problems may arise from vehicles stopping along the roadsides waiting for the restriction to be lifted. This will cause even greater

congestion. We feel that this problem can be prevented by stricter enforcement. Stationary vehicles causing congestion can be booked and fined. Those without drivers should be towed away.

#### *ALS Exemptions*

There is one category of vehicles that we feel should be exempted from the operation of any Area Licensing Scheme:

- (a) Public Bus Services (including Scheme B buses). This is to ensure that commuters are encouraged to use these means to enter the city area during peak hours. Subjecting the buses to ALS is likely to affect one of their most attractive qualities - low cost.

The CBD charges should also have been maintained at their original level of S\$5. The reduced CBD charges would send the wrong signal to the motoring public. It would run counter to the general objective of discouraging use of the CBD during operational hours.

The higher cost of using the road in the CBD should serve to discourage car owners from driving their cars in the area. Instead the driver should be encouraged to make use of alternative means of transport like the bus, MRT, etc.

#### *(ii) Petrol Taxes*

The advantage of petrol taxes is that it is directly related to the extent of usage of a vehicle. It is therefore a useful device to resort to curb usage. However, there are two constraints that must be borne in mind in exercising this device:

- (a) The availability of cheaper petrol across the causeway. Even with the half-tank rule, it may still be worthwhile for motorists to fill up their tanks there if petrol prices rise too steeply here.
- (b) Excessive reliance on petrol taxes is likely to result in general overheads of business going up and passed on to the consumer. The dangers of this leading to a general rise in the price of goods and thus feeding inflating must be remembered.

#### *(iii) Carparks*

Carparks should be utilised more as a device to control the usage of cars. The approach should be to encourage the motorist to leave his car at home than drive to, and park the car at his place of work. This can be achieved by making carparking costs significantly higher in the CBD than in outlying residential areas.

The government should implement a policy to reduce the minimum number of car lots required to be built in a building. A short supply of lots will naturally make the available lots more expensive and thus affordable to fewer car owners. This will serve as a disincentive for motorists to drive into the CBD. This is the situation in Hong Kong. Many who are rich do not own a car not because they cannot afford it but because they do not know where to park it.

This would also allow more economical use of the limited building space available in the CBD.

### *Improvement of Public Transport*

6. The approach to be taken by the government to keep in check traffic congestion on our roads should be two fold:

- (i) discouraging the use of cars through fiscal disincentives; and
- (ii) the provision of public transportation system that constitutes a viable, attractive alternative.

7. In this part of the paper, the focus is on public transport and the means by which it can be made sufficiently attractive to draw converts from the motoring public.

### *Public Bus Services/MRT*

8. Bus services in Singapore have seen a vast improvement, both in efficiency as well as in comfort since the setting up of the SBS in 1978. Specialisation in the area of routes has also taken place, with the setting up of TIBS to cover specific bus routes. This has allowed the bus companies to concentrate their resources on their particular spheres of operations.

9. However, it is clear that much more needs to be done before the average Singapore car owner/driver will consider the bus as an alternative.

10. The following points may be highlighted as areas in which further developments should be undertaken to improve service.

#### *(a) Improvement in Travelling Comfort of Buses*

eg., air-conditioning, piped-in music, courteous service.

#### *(b) Capacity of Buses*

The capacity of buses should be expanded to the fullest potential possible, having regard to road design limitations and practical considerations such as height restrictions. Wherever possible, double decker buses should be deployed.

#### *(c) Improvement in Bus Routing*

Although the present system is fairly comprehensive, in that a bus is available wherever there is a major road, it still suffers from some problems. For example, bus routes tend to converge on certain key roads like Orchard Road and Shenton Way. This leads to congestion. There is also the problem of multiplication, in that several services cover the same stretch of road and similar destinations. If possible bus services should be streamlined to ensure that such multiplication is kept to a minimum.

The provision of shuttle services from the major housing estates (not serviced by the MRT) to major centres of employment should also be looked into.

#### *(d) Integration of MRT/Bus*

The first step in the integration has been taken with the setting-up of Transit-Link Pte Ltd. Eventually, bus routes can be rearranged so as to complement the MRT System as a feeder service and also as

means whereby MRT passengers can get to areas out of walking distance from the station. Efforts should be made to link MRT stations to residential areas by shuttle services. This will make the MRT an attractive option to people living in areas not directly serviced by the MRT.

As the MRT becomes fully operational, the bus system should be reviewed to reduce the number of services and thus the number of buses plying potential problem areas like the CBD.

An important consideration must be the adoption of a single ticketing system whereby a passenger from one mode (eg., a bus) can transfer to another (eg., MRT or another bus) without having to purchase a fresh ticket. This will make the bus/MRT system less of a bother to commuters.

The entire system of bus routes and bus stops should be linked with the MRT system in that major stops should be sited at MRT stations. This will make it easier for commuters to switch modes with the minimum of bother.

As a further measure, the concept of fringe car parks should be reviewed and implemented as an adjunct to the MRT/bus system. Motorists should be encouraged to leave their cars near major stops and MRT stations and then use the available public services to travel into the CBD. One possible manner of encouraging this is to offer reduced long term parking costs to such motorists. The through ticketing system should be developed to allow for use in such car parks as well.

(e) *Improvement of Services*

A system of detailed scheduling of bus routes should be implemented and published. It goes a long way to making the public transport system more attractive if passengers know that they can plan the duration of their journeys with confidence. Although at present the public transport system does give an indication of the time intervals between buses for a particular service, this is at best an estimate. Efforts should also be made to train bus-crew to adhere to the schedule.

Another area of improvement which will affect the quality of service is the design of bus-stops. Bus-stops at the moment are designed on an utilitarian basis and are nothing more than points on the road where a bus can stop to pick-up or off-load passengers. Design should be approached from the commuter's point of view, that is, as a facility for him or her to wait for a bus and to board it efficiently and safely, all with the minimum of discomfort and delay.

(j) *Incentives and Disincentives*

The government should seriously study offering comprehensive tax packages that will encourage bus companies to consider and implement the changes suggested above. This could include tax write-offs for implementation costs.

At this juncture, it must be noted that there is no real element of competition in the public bus system. In the event that the upgrading of the bus services does not proceed at an acceptance pace, it may be necessary to introduce competition to encourage such improvements.

### *Taxis*

11. Taxis are the closest and most viable alternative to private cars.
12. However taxis are no different from private cars in terms of contribution to traffic congestion. In the light of this we are against any growth in the taxi population unless there is clear evidence of a shortage of taxis on our roads.
13. The ideal manner in which taxis should be used is by more than one fare. If only one fare uses a taxi at a time, this is no difference from that fare driving in himself. The Share-a-Cab scheme previously tried out, if successful, could constitute a breakthrough in attempts to ease traffic flow.
14. However the scheme has been tried in the past, without evident success. We believe that a review must be undertaken to understand why it failed so that any new Share-a-Cab scheme can have the benefit of learning from previous attempt.
15. Empty taxis plying the roads for fares are clearly an uneconomical use of our roads. We therefore suggest the prohibiting of taxis from cruising for fares in the CBD during the ALS hours. Taxis should only be allowed to pick up and drop passengers at taxi stands in the CBD. This will ensure that they do not add to congestion by cruising for fares. This will also reduce and minimise the situations where traffic is slowed down because of a taxi dropping or picking up a fare along a busy road.
16. Of course, if this proposal is to succeed, sufficient and suitably located taxi stands must be provided within the city areas.

### *General Measures To Improve Traffic Flow*

17. In many instances, apart from the number of vehicles on the roads, traffic congestion is generally contributed to by:
  - (i) Lack of road discipline.  
eg., motorists failing to move their vehicles to the kerbside after becoming involved in a minor accident, bickering instead with each other over whose fault it was.
  - (ii) Illegal parking along road.
  - (iii) Too many pedestrian traffic light crossings.
18. Education of road users should allow points (i) and (ii) to be addressed and thereby reduce the effect of these factors without too large a capital outlay.
19. As regards illegal parking, the Traffic Police should be instructed to pay closer attention to this problem. If it should appear that strict enforcement of the present provisions against illegal parking is not effective in remedying this problem,



then serious consideration should be given to imposing stricter penalties on errant motorists. We feel that the use of the Traffic Police in the context of illegal parking may not be cost effective. The concept of traffic wardens should be studied to determine if that would be a more cost effective means of policing the problem of illegal parking.

20. The traffic congestion situation is compounded by the delays at pedestrian traffic light crossings. This is especially so along busy stretches of roads like the Orchard Road stretch. It is of course appreciated that pedestrians should be given an opportunity to cross roads in a safe manner at designated points. The object however should be to accomplish this with the least possible disruption to the flow of vehicular traffic.

21. With this object in mind, emphasis should be placed on underground passes or overhead bridges instead of road level crossings. While it may be a bit more difficult for the pedestrian to use such crossings, it would contribute significantly towards allowing a smoother non-disruptive flow of vehicles.

22. The above steps, though not related directly to discouraging the use of cars, is nevertheless likely to contribute to ensuring smooth traffic flow.

#### *Longer Term Considerations*

23. We feel that in the long term, it is detrimental to continue concentrating employment generating activities in the central city area. Decentralisation of such activities away from the central area would assist in keeping the growth of vehicular traffic within the central areas in check.

24. In other words, there should be a concerted effort to reduce the emphasis of a single central business district. Offices should be encouraged to set up outside the central business area when there is no good reason for these offices to be located in the CBD. Government departments, Ministries and statutory boards should set the pace by locating their offices, where possible, outside the CBD.

#### SAFRA TEAM A

CPT (Res) LYE HOONG FAI.

CPT (Res) ROBERT BONG.

CPL (Res) LOH SWEE HONG,  
SIMON.

CPT (Res) SEAH KHEN HEE.

CPL (Res) SRIDAR K.V.

MAJ (Res) GOH HOON SAY.

MAJ (Res) SEAH KEE POK.

SGT (Res) MOHAN PILLAY.

LTA (Res) CHAN SENG ONN.

CPL (Res) GOH KOK YEOW.

CPT. (Res) LIM BOH SENG.

MAJ (Res) SARJIT SINGH.

CPT (Res) YEO KHEE LENG.

CPT (Res) TAN CHOW BOON.

CPT (Res) HWANG NIAN CHIN.

## Paper 70

From: Mr Tan Guong Ching,  
Permanent Secretary (Communications),  
Ministry of Communications and Information,  
Singapore.

Dated: 24th October 1989.

---

Q1. What is the impact of abolishing PARF on:

- (i) the price and demand for new cars
- (ii) the price and demand for used cars
- (iii) total car population and age

What is the impact if the ARF were to be raised significantly along with the abolition of PARF?

### INTRODUCTION

The Preferential Additional Registration Fee (PARF) Scheme was introduced in 1975 *as an incentive for car owners to scrap their cars early*.

2. Owners of new cars have to pay an Additional Registration Fee (ARF) prior to registration of their cars. The PARF scheme provides for a car owner who scraps or exports a car which is less than 10 years old, to register a new car at a preferential rate of ARF, provided the old car is within the same range of engine capacity as that of the new car.

3.. The present ARF/PARF system is based on a percentage of the cost of a new car. Present PARF rates for cars, based on a 1983 revision, are between 45% and 65% of ARF, varying with the engine capacity of the car (See Annex I [page B 149]). The cost of cars within any engine capacity range, varies widely depending on the make and model. Hence the dollar value of savings on PARF also varies widely (Annex II [page B 149]). It is therefore not possible to make any quantitative estimate of the effect of abolishing PARF. However, we can draw some conclusions on the qualitative impact of such a measure.

#### *Price and Demand for New Cars*

4. The abolition of PARF will increase the price of new cars for models previously bought with PARF, since such cars will now have to be purchased at full ARF. Hence the overall demand for new cars will decrease.

#### *Price and Demand for Old Cars*

5. (a) For models which are presently scrapped for purposes of PARF, abolition of PARF will decrease the value of the older cars because

these older cars will not be supported by a base price which is the "scrap car value"; (Figure 1 [page B 150]).

- (b) The lower prices of such older cars may be offset by a higher demand so that prices are likely to be only slightly lower than with the present PARF;
- (c) For models of cars which are currently not scrapped for PARF, the abolition of PARF will increase the cost of the older cars marginally (Figure 2 [page B 151]);

#### *Total Car Population and Age*

6. With higher cost for new cars and lower values for older cars, the overall cost of owning a car per year will increase. This will slow down the increase of new cars. There will be an increased tendency to stretch the lifespan of the car. This will be offset by the increasing cost and inconvenience of maintenance and repair, and the increasing cost and inavailability of spare parts.

#### *If ARF were to be raised significantly*

7. If the ARF were to be raised significantly along with the abolition of PARF, the cost of new cars will go up. Assuming a given economic lifespan for a car, the rate of depreciation will be higher (Figure 3 [page B 152]). Hence the price of older cars will be marginally higher. The overall effect would be to increase the cost of ownership of cars, slow down the increase of new cars, and increase the tendency to stretch the lifespan of the cars.

#### *Conclusion*

8. On balance, the abolition of PARF with or without an increase in ARF will result in slowing down the rate of increase in the car population and a marginal increase in the age of cars.

## PARF RATES FOR CARS

<i>Engine Capacity</i>	<i>PARF Rate</i>	<i>Savings (as % of ARF)</i>	<i>Savings (as % of price of car)</i>
1. Below 1000 cc	45%	55%	30%
2. 1001 - 1600 cc	50%	50%	27%
3. 1601 - 2000 cc	55%	45%	25%
4. 2001 - 3000 cc	60%	40%	22%
5. Above 3000 cc	65%	45	19%

## SAVINGS FOR BUYING AT PARF PRICES FOR SELECTED CARS

<i>Car</i>	<i>Engine Capacity</i>	<i>ARF Price</i>	<i>PARF Price</i>	<i>Scrap Price</i>	<i>Savings on PARF</i>
Toyota Corrolla 1.6 GL LIB 16V	1587	61,465	46,445	11,000	4,020
Mitsubishi Galant 1.6	1597	66,508	49,508	11,000	6,000
Mitsubishi Lancer GTi 1.6	1596	70,508	51,620	11,000	8,888
Toyota Corona CD 16V(A)	1587	76,445	57,245	11,000	8,200

Figure 1: *Cars Presently Scrapped for PARF*

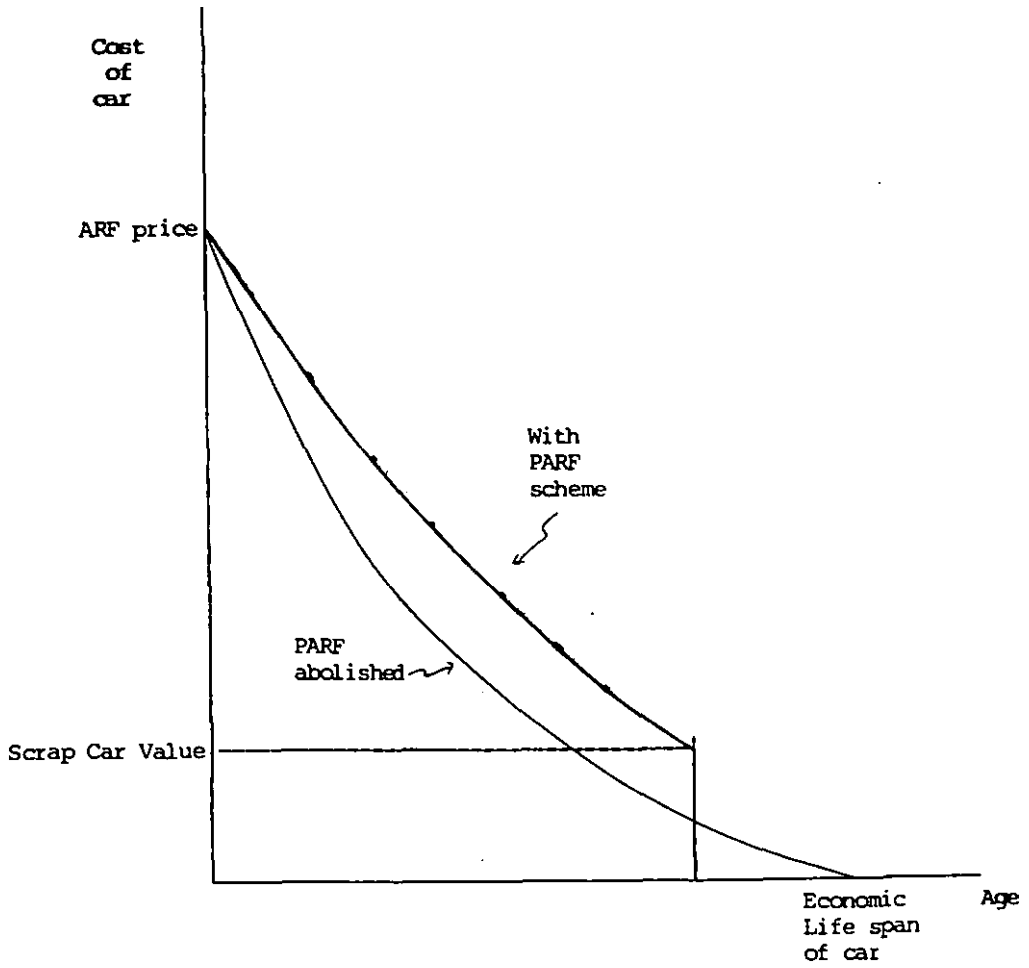


Figure 2: *Cars Presently not Scrapped for PARF*

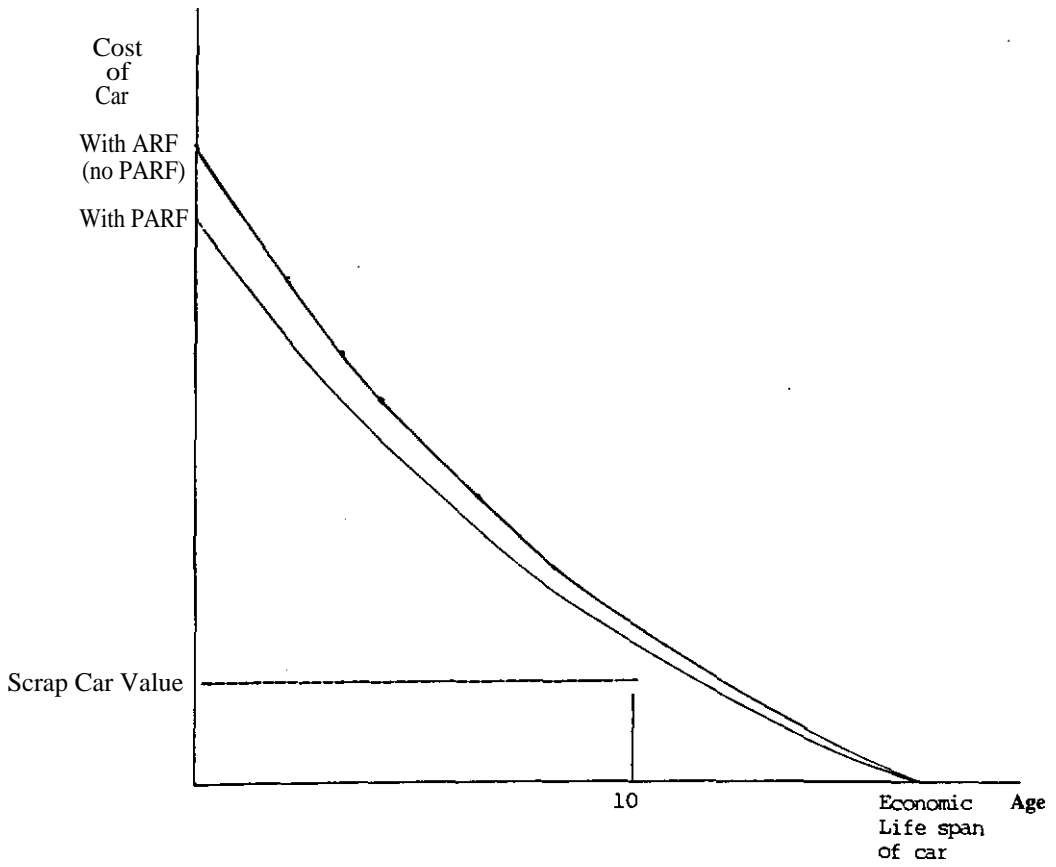
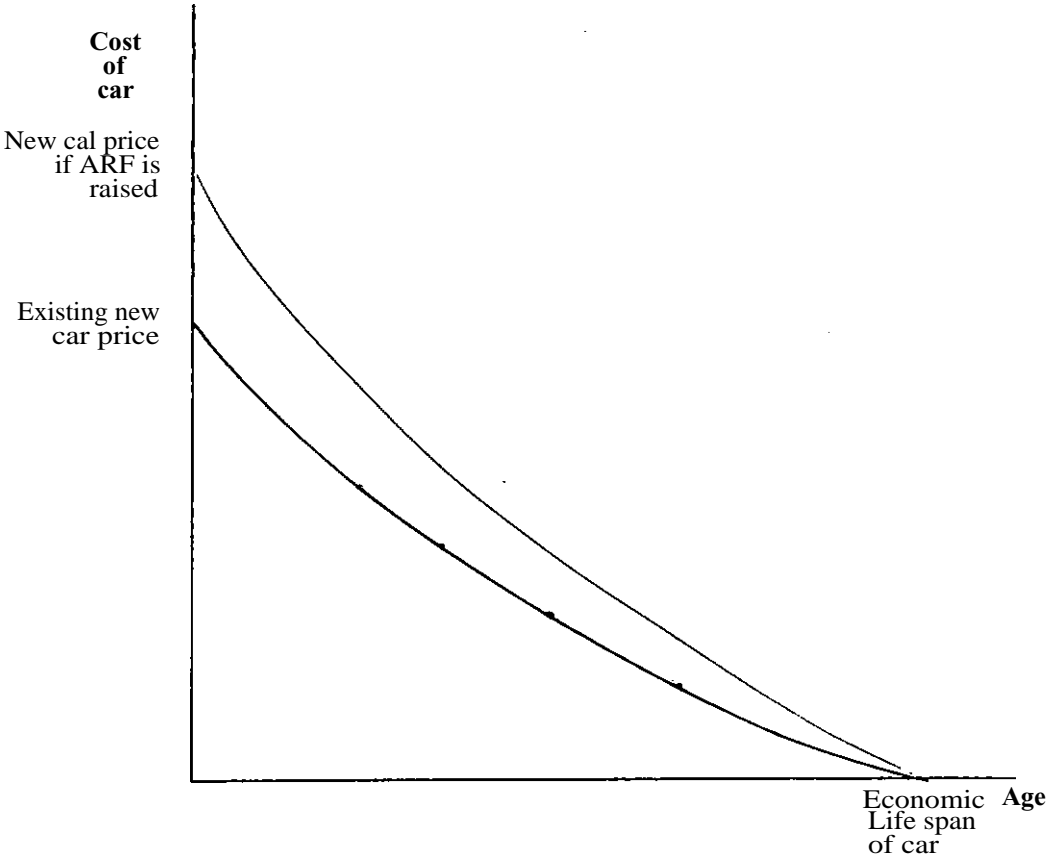


Figure 3: *Impact of Rise in ARF*



Q2. There are two ways of regulating the vehicle population:

- (1) by fixing the price; or
- (2) by fixing the number.

Please provide the pros and cons of either system.

*Response:*

Since the early 1970s, the Government has implemented measures to regulate both the growth and usage of the motor vehicle population. Measures to regulate growth had mainly been by way of fixing the price, by increases in the Additional Registration Fee (ARF) and the annual road taxes. Eg. between 1974 and 1989, the ARF and road taxes for cars (1001-1600 cc) had been increased by an average of 8.0% and 11.8% pa respectively. The objective is to ensure that the capital and operating costs of a car keep pace with the economic growth of the country so that ownership of cars does not proliferate and create uncontrollable traffic jams, and adversely affect our economy.

2. For road junctions that are presently handling capacity or over capacity traffic volume, PWD estimates that an increase of 10% of vehicular traffic will increase the waiting time at each junction by another 2 cycles of change of lights (about 4 mins).

3. The pros and cons of regulating the growth of the vehicle population by fixing the price (fiscal restraint measures) are as follows:

*Pros*

- (i) There is certainty for motorists as they know beforehand the price that they have to pay before they purchase the car;
- (ii) They will be assured of a vehicle so long as they are prepared to pay the appropriate taxes and fees;
- (iii) Fiscal restraint measures such as road tax and ARF/PARF have been used for the past 15 years, and have been successful in regulating the growth of vehicles over the long term;
- (iv) It is easy for the public to understand as it is a tried and tested method.
- (v) Prices of used cars are more stable as there is less fluctuation in the prices of new cars.

*Cons*

- (i) There is no absolute control over the actual vehicle population especially over the short term. We can only estimate the impact of the tax increases based on past experience and on anticipated economic growth.
- (ii) Over time, the effectiveness of tax increases is eroded as increased affluence makes cars more affordable particularly when there is an economic boom. For example, the impact of the 1983 ARF increase was eroded when the economy recovered in 1987, and salaries and bonuses were increased significantly. The car population which had been falling before then crept up to 0.7% in 1987 and 6.9% in 1988.



- (iii) It is misunderstood by some sectors of the public as a revenue-generating exercise.

4. Another way of regulating the vehicle population is to fix the number of vehicles allowed each year and to allocate this number or quota via, say, a tender system.

5. The pros and cons of a quota system are as follows:

*Pros*

- (i) There will be absolute control over the total vehicle population in both the short and long term. This will ensure that the increase in vehicle population match the increase in the capacity of our network of roads.
- (ii) The public will determine the cost of owning a vehicle.
- (iii) The quota can be adjusted in the light of traffic conditions and any additional traffic control measures such as the electronic road pricing system.

*Cons:*

- (i) In a booming economy, if the demand for vehicles exceeds the quota, the tender prices would fluctuate significantly depending on the state of the economy. Some unhappiness is to be expected from those who are unsuccessful in their tenders.
  - (ii) Prospective vehicle owners would experience uncertainty regarding their success in securing the right to purchase a vehicle.
  - (iii) The quota system as applied to vehicles is untested and unproven.
  - (iv) The public is likely to misconstrue the quota system as another means of revenue generation and not as a free market mechanism for regulating the growth of cars.
  - (v) Used car prices will experience wider fluctuations, in tandem with the prices paid for new cars.
-

## Paper 71

From: Dr Tan Swan Beng,  
Director-General of Public Works,  
Singapore.

Dated: 25th October, 1989.

### EVENING TRAFFIC CONDITIONS

#### 1. *Background*

The evening Area Licensing Scheme (ALS) was introduced on 1.6.89. Under the scheme, all vehicles except scheduled buses need to purchase a licence to enter the Restricted Zone (RZ) in the city between 4.30 pm - 7 pm.

The scheme has resulted in widespread improvements to the traffic conditions in the city during the evening. The Select Committee on Land Transport concurs with this view. But it has received feedback that the traffic conditions outside the RZ are much worse and that the majority of the residents both within and outside the RZ are now getting home later.

#### 2. *Purpose of this paper*

The purpose of this paper is for the Public Works Department (PWD) to furnish statistics to check whether this is what is happening.

#### 3. *Statistics*

The PWD has carried out traffic counts and some travel speed studies before and after the implementation of the evening ALS within and outside the RZ. These were done in May 89 and July/August 89.

PWD's conclusions are drawn from the results of these surveys.

#### 4. *Classification*

The roads are classified into 4 types for traffic surveys.

- (a) Roads within the RZ
- (b) Radial Roads fanning out from the RZ into the suburbs.
- (c) Inner and outer ring roads skirting the RZ.
- (d) Expressways.

The roads in the RZ are used by city workers going home, and by residents in the city returning home. In a similar manner, the radial roads are mainly used by the same people. The ring roads are used by those avoiding the RZ. The expressways are used by those avoiding the RZ and those from and to the RZ.

5. Results

Appendix I [pages B 158-B 159] shows the traffic counts for the period 5 pm - 7 pm for May 89 and August 89 for 46 locations spread around the island. Appendix II [page B 160] shows the average travel speeds on various classes of roads for May 89 and July 89 for the period 5.30 pm - 6.30 pm.

6. Analysis

6.1 Appendix I [pages B 158-B 159] shows

- (a) There is a significant drop in traffic volumes in RZ.
- (b) There is a marginal drop in traffic volumes on most radial roads.
- (c) Traffic volumes on some sections of ring roads and expressways have increased, but most sections have drop in traffic volumes.

Generally, traffic speeds increase when traffic volumes decrease on a section of the roadway.

If we are to look only at the situation outside the RZ, we have to discount the 4 locations in the RZ. There are thus 42 locations. At 31 of the 42 locations, traffic volumes have decreased showing improvement in 74% of the roads outside the RZ. In terms of traffic, 120,000 out of a total of 180,615 vehicles are having increased speeds, working out to 66.4%.

This shows that traffic conditions outside the RZ are generally better after the introduction of the evening ALS.

*Table I shows the approximate length of main roads in each system*

Location	Total Length (km)	%age	Traffic speeds after evening ALS
RZ roads	50	21%	++
Ring Roads	30	12%	--
Radial Roads	70	29%	+
Expressways	91	38%	+
Total	240	100%	

- ++ considerable improvement in speed
- + slight improvement in speed
- considerable reduction in speed
- slight reduction in speed

We can conclude that the majority are benefitting from the evening ALS, because a larger percentage of roads are experiencing speed improvements.

6.2 Appendix II [page B 160] shows:

- (a) Travel speeds in the RZ show marked improvements.
- (b) Travel speeds on the radial roads show slight improvements.
- (c) Travel speeds on the expressways (end to end) show slight improvements.
- (d) Travel speeds on the ring road (end to end) show marked worsening.

## 7. *Conclusion*

A road pricing system for a particular area will cause aberrations in a traffic system. Improvements in one area will cause problems in another. This is confirmed in the Singapore case. The improvements are over a large area in the city which is the largest generator of traffic in the evening. The problems are on the two ring roads that skirt the city. There are slight improvements on the other roads. On balance, the improvements have more than compensated for the problems. It follows, that the general traffic conditions after the evening ALS allow more people to get home earlier.

## TRAFFIC COUNTS (5 PM - 7 PM)

A. *City Roads (Within RZ)*

<i>Road</i>	<i>Before (After)</i> <i>(May 89 (Aug 89))</i>
1. Orchard Road	7300 (3557)
2. South Bridge Road	3993 (2567)
3. Bras Basah Road	7303 (4191)
4. Victoria St	4198 (3030)

B. *Radial Roads*

<i>Road</i>	<i>Before (After)</i> <i>to City</i> <i>(May 89 (Aug 89))</i>	<i>Before (After)</i> <i>away from City</i> <i>(May 89 (Aug 89))</i>
1. Mountbatten Road	1044 (1939)	2022 (1851)
2. New Upper Changi Road	2249 (2236)	2527 (1820)
3. Macpherson Road	1591 (2010)	2679 (1943)
4. Upper Serangoon Road	1863 (1380)	3573 (2691)
5. Thomson Road	3348 (3839)	4813 (4422)
6. Bukit Timah Road/Dunearn	4631 (4534)	5298 (4529)
7. Holland Road	3855 (3280)	3891 (2569)
8. River Valley Road	2678 (2506)	3159 (2597)
9. Alexandra Road	3339 (2892)	2784 (2661)
10. Telok Blangah Road	5272 (4897)	2998 (3150)

C. *Ring Roads*

<i>Inner Ring Road</i>	<i>Before (After)</i> <i>(May 89 (Aug 89))</i>
1. Lavender St to Balestier Road to Kallang Road	5266 (4594) 3781 (3588)
2. Scotts Road to Orchard Road to Newton Circus	5965 (5011) 6399 (7912)
3. Outram Road to Cantonment Road to Tiong Bahru Road	3464 (2902) 3837 (2108)
<i>Outer Ring Road</i>	
4. Paya Lebar Road to Upper Serangoon Road to Sims Ave	3931 (3976) 3815 (3656)
5. Adam Road to Lornie Road to Holland Road	5621 (4934) 4164 (3954)
6. Queensway to Alexandra Road to Fatter Road	3266 (2880) 3950 (4183)

D. Expressways

<i>Expressways</i>		<i>Before (After)</i> <i>(May 89 (Aug 89))</i>
1. Pan Island Expressway to Jurong to Changi	11308 (8588) 9535 (10874)	
2. East Coast Parkway to Keppel Road to Changi	6708 (6968) 10324 (6914)	
3. Central Expressway to Kampong Java Road to Yio Chu Kang Road	7949 (7591) 8497 (7379)	
4. Ayer Rajah Expressway to Keppel Road to Jurong	9151 (11847) 7594 (7123)	
5. Bukit Timah Expressway to PIE to Woodlands	2009 (1970) 2845 (3917)	

*Analysis*

- (a) There are 42 locations outside the city area.
- (b) When figures are underlined, it means that the traffic volumes in Aug 89 exceed the values for May 89. Hence speeds could be expected to decrease on these sections.
- (c) There are 11 such sections out of a total of 42 sections and the total volume for these 11 sections in August 89 is 60,615.
- (d) The total volumes for Aug 89 at all 42 locations is 180,615.
- (e) Therefore, there are decreased speeds along 42 (ie 26%) of the locations and the total percentage of vehicles involved is  $\frac{60615}{180615}$  (ie 34%)
- (f) Therefore, there are increased speeds along 74% of the locations and the total percentage of vehicles benefiting is 66%.

AVERAGE TRAVEL SPEEDS (5.30 PM - 6.30 PM)

A. <i>City Roads (Within RZ)</i>		
	<i>Before</i>	<i>After</i>
	23 kph	30 kph
B. <i>Radial Roads</i>		
	<i>Before</i>	<i>After</i>
To Fringe of RZ	33.5 kph	34.9 kph
From Fringe of RZ	32.1 kph	34.6 kph
C. <i>Ring Roads (End to End)</i>		
	<i>Before</i>	<i>After</i>
(a) Inner Ring Road		
East to West	28.4 kph	22.3 kph
West to East	30.4 kph	19.7 kph
(b) Outer Ring Road		
East to West	32.3 kph	28.4 kph
West to East	29.5 kph	28.6 kph
D. <i>Expressway</i>		
(Average Two Directional)		
	<i>Before</i>	<i>After</i>
	59.8 kph	61.0 kph
Before - May 89		
After - July 89		

MINUTES OF EVIDENCE

<i>Representors</i>	<i>Pages</i>	<i>Columns</i>
<i>Representing the School of Building and Estate Management, Faculty of Architecture and Building, National University of Singapore:</i>		
Assoc Prof Lim Lan Yuan, Head of School	C 1-10	1-18
Assoc Prof Brian Field		
Dr Sim Loo Lee, Senior Lecturer		
Dr Steven Choo Kian Koon, Senior Lecturer		
Dr Amos Koh, Senior Lecturer		
Mr Toh Choong Fook	) C 11-14	19-26
Mr Christopher Herbert	) C 15-18	27-34
Mr Han Fook Kwang	) C 19-27	35-52
<i>Representing the Singapore Democratic Party:</i>		
Mr Jimmy Tan Tiang Hoe, Assistant Secretary-General	C 28-39	53-76
Mr Ashleigh Seow, Member, CEC		
<i>Representing the Automobile Association of Singapore:</i>		
Mr Ng Ser Miang, President	C 40-46	77-90
Mr Gerard Ee, Vice-President		
Mr Humphrey Chua, Committee Member		
<i>Mr Dennis Singham and Others:</i>		
Mr Dennis Singham	C 47-54	91-106
<i>School of Civil and Structural Engineering, Nanyang Technological Institute:</i>		
Mr Piotr Olszewski, Senior Lecturer	C 55-60	107-118
Mr Tan Yan Weng, Lecturer		
Mr Abdul Hussain	) C 61-65	119-128



**MINUTES OF EVIDENCE - *continued***

<i>Representors</i>	<i>Pages</i>	<i>Columns</i>
<i>Representing SAFRA Team A:</i>	}	C 66-77 129-152
Cpt (Res) Lye Hoeng Fai		
Cpt (Res) Robert Bong		
Maj (Res) Goh Hoon Say		
Sgt (Res) Mohan Pillay	}	
<i>Representing the Singapore Chinese Chamber of Commerce and Industry:</i>	}	C 78-81 C 109-115 153-160 215-228
Mr Ong Lay Khiam, Chairman, Economics Committee		
Mr John Y Lu, Council Member		
Mr Khor Seng Ping, Assistant Secretary (Research)		
<i>Representing the Public Works Department:</i>	}	C 82-87 161-172
Dr Tan Swan Beng, Director-General		
Mr A P G Menon, Chief Transportation Engineer	}	
<i>Representing NTUC Comfort:</i>	}	C 88-97 173-192
Mr Lew Syn Pau, General Manager		
Mr Yang Ban Seng, Assistant General Manager		
Mr Nah Tua Bah		
Mr Ahmad Bachor	}	
<i>Representing the Singapore Taxi-Drivers' Association:</i>	}	C 98-100 193-198
Mr Lim Kim Seng, President		
Mr Goh Eng Hai, Hon. Secretary	}	
Mr Phang Kok Chiew	)	C 101-108 199-214
Dr Phang Sock Yong	)	C 116-126 229-250

**MINUTES OF EVIDENCE - continued**

<i>Representors</i>	<i>Pages</i>	<i>Columns</i>
<i>Representing the Singapore Secondhand Motor Vehicles Dealers Association:</i>	}	C 127-131      251-260
Mr Lim Hong Koon Vice-Chairman		
Mr Simon Tan, Secretary		
Mr Hee Jau Yong, Secretary, Sub-Committee		
<i>Representing the Vehicle Rental Association:</i>	}	C 132-136      261-270
Mr Eugene Lim, President		
Mr Steven Oei, Vice-President		
Mr Henry Lee, Secretary		
Mr Steve Poh, Treasurer		
Mr Simon Lau Pak Wai	)	C 137-140      271-278
<i>Representing the Chartered Institute of Transport:</i>	}	C 141-149      279-296
Mr Mike Gray, Chairman		
Mr David Turner, Vice-Chairman		
Mr Michael Tay, Hon. Secretary, Land Transport Sub-Committee		
<i>Representing the Ministry of Communications and Information:</i>	}	C 150-164      297-326
Mr Tan Guong Ching, Permanent Secretary (Communications)		
Mr Phua Tin How, Registrar of Vehicles, ROV		
Mr Lam Chih Tsung, Assistant Director		
Mr Robert Powell	)	C 165-167      327-332
Mr Shriniwas Rai	)	C 168-170      333-338

**MINUTES OF EVIDENCE - continued**

<i>Representors</i>		<i>Pages</i>	<i>Columns</i>
Mr Paul Dixon	)	C 171-173	339-344
Mr Jack Tan	)	C 174-176	345-350
<i>Representing the Singapore Lorry Owners Association:</i>	}	C 177-180	351-358
Mr Lee Kok Chin, Chairman			
Mr Francis Lee, Vice-Chairman			
Mr Lim Quee Huat, Hon. Secretary			
Mr Fang Loo Khuay, Association Adviser	}		
Mr Ole H Dyrhaug	)	C 181-184	359-366
Mr Paul S Y Law	)	C 185-187	367-372

## MINUTES OF EVIDENCE

---

THURSDAY, 2ND NOVEMBER 1989

9.30 am

---

PRESENT:

Dr Hong Hai (*in the Chair*)

Dr John Chen Seow Phun	:	Dr Augustine H H Tan
Mr Chiam See Tong	:	Dr Wang Kai Yuen
Mr Lim Boon Heng	:	Encik Yatiman Yusof
Mr Ng Pock Too		

---

*Chairman*] Good morning, ladies and gentlemen. Before we begin the proceedings, I would like to introduce the Members of the panel. On my right are Mr Lim Boon Heng, Dr Augustine Tan, Mr Chiam See Tong and Mr Ng Pock Too. On my left are Encik Yatiman Yusof, Dr Wang Kai Yuen and Dr John Chen. The Select Committee is sitting today to hear oral evidence in respect of land transportation policies in Singapore within the terms of reference laid down by Parliament. A total of 69 written submissions have been received from the public. In addition, two submissions from the Ministry of Communications and Information and from the Public Works Department have been received as a result of requests from the Select Committee at its previous meeting. Subject to the limitations of time, this Committee intends to hear oral evidence from the authors of 25 out of the 69 submissions as well as from officials of the two Government bodies mentioned earlier. These 25 submissions represent a fair cross-section of views received by the Committee. The terms of reference of this Committee are a matter of public record. I would like to state that this Committee seeks a dialogue with the public on an issue close to the hearts of Singaporeans. We hope that the process will be of mutual educational value, that the public will emerge with a clearer understanding of the complexity of the land transportation problem for which there are no easy solutions or quick fixes and that Members of this Committee will in turn benefit from the ideas put forward by responsible members of the public and thereby be assisted in presenting better recommendations to Parliament.

---

Paper No. 27 - School of Building & Estate Management, Faculty of Architecture & Building, National University of Singapore.

The following representatives were examined:

Assoc Prof. Lim Lan Yuan, Head of School

Assoc Prof. Brian Field

Dr Sim Loo Lee, Senior Lecturer

Dr Steven Choo Kian Koon, Senior Lecturer

Dr Amos Koh, Senior Lecturer

---

*Chairman*

1. I now call upon the first witness, Assoc Prof. Lim Lan Yuan and his team from the National University of Singapore. For the record, would you please state your names, addresses, occupations, organisational affiliations and your citizenship status? Perhaps you could begin from the left? - (*Dr Steven Choo Kian Koon*) I am Dr Steven Choo of 96 Sunset Way. I am a Senior Lecturer at the National University of Singapore. I am a Singapore citizen. (*Assoc Prof. Brian Field*) My name is Brian Field. I live at 16 Yarwood Avenue. I am an Associate Professor in the School of Building and Estate Management at the National University of Singapore and I am a British citizen. (*Assoc Prof. Lim Lan Yuan*) I am Lim Lan Yuan, Associate Professor and Head of the School of Building and Estate Management, National University of Singapore. I am a Singapore citizen. (*Dr Sim Loo Lee*) I am Dr Sim Loo Lee. I live at 137, Sunset Way, Clementi Park. I am a Senior Lecturer at the School of Building and Estate Management, NUS. I am a Singapore citizen. (*Dr Amos Koh*) I am Amos Koh. I am a Senior Lecturer at the School of Building and Estate Management, NUS and I am a Singapore citizen. I reside at Braddell Hill.

2. Your group has stated in your submission that the principal deficiency of the Government's strategy in land transportation "is the lack of any explicit policy objectives based on a considered definition of the nature of the actual urban transport problem." Would you like to explain briefly what you mean by the Government not having any explicit

policy objectives? - (*Assoc Prof. Brian Field*) Our concern is that the objectives are, in a sense, implied in the way that the policy has been implemented. Our principal concern here is that congestion means different things to different groups of people, including different groups of professionals. There is frequently conflict within the transport professions between engineers, economists and town planners as to what constitutes a congestion problem. As we see it, the principal objective so far in Government policy has been to keep traffic moving smoothly. We have taken that to imply a definition of congestion which complies with an engineer's perception, ie, that traffic should move in accordance with the design capacity of a road. We would say that an economist's definition was more appropriate. In other words, that the roads are used optimally, which implies some delays. We can spell out more precisely what we mean graphically or with some examples, if you wish.

3. If you could keep it brief? - (*Assoc Prof. Brian Field*) Very quickly, this is just a diagram from a standard economics textbook. If we look at this, it is the cost of travelling of an individual motorist and evaluates the cost of making the journey. In free-flowing conditions, the cost will remain constant. Once the road starts to become congested, cost increases. This is the individual motorist's cost of travel. Unfortunately, once the road becomes congested the individual motorist will impose costs on other motorists, in the sense that the delay he incurs is exaggerated by the delay he imposes on other roadusers. The problem as we see it is that the policy so far, although not stated explicitly, has been

## MINUTES OF EVIDENCE

3

2 NOVEMBER 1989

4

directed at maintaining a level of road usage consistent with flow OE, in other words, where there are no delays and where traffic moves smoothly. If there was no restraint and if there was no ALS, the individual motorist, would keep using the road up to this point (OG) where his benefits are equal to his cost. We are suggesting that we should look at society's costs and, in fact, the optimal road usage level is here (OF) where the society's cost curve cuts the demand curve. In other words, beyond the free-flowing level, some motorists can join the traffic stream and that the cost they impose on other roadusers are less than the benefits that they get from making the trip and, presumably, the benefits that they get from making the trip are the benefits that society gets from making the trip.

4. Could I interrupt you here? How does the society determine this theoretical optimal point? - (*Assoc Prof. Brian Field*) Very difficult.

5. In practical terms, it is not determined? - (*Assoc Prof. Brian Field*) In practical terms, it is not possible to determine precisely. What we can say is that certainly the level of road usage that is optimal is some way beyond the level of road usage where free-flowing conditions apply.

6. Do we have free-flowing conditions today? - (*Assoc Prof. Brian Field*) I would suggest that we have well-nigh free flowing conditions compared with my experience in European capitals.

7. Do you drive at 5-6.00 o'clock in the evening? - (*Assoc Prof. Brian Field*) Yes, I do, I am sorry to say.

8. Do you drive at 8-9.00 o'clock in the morning? - (*Assoc Prof. Brian Field*) Yes, I do.

9. Through the expressways and through the ring roads? - (*Assoc Prof. Brian Field*) Yes, I do.

10. You would call that "free-flowing"? - (*Assoc Prof. Brian Field*) I would say that there are one or two congested spots.

11. Would you say that your standards are London standards? Compared to London, this is free-flowing? - (*Assoc Prof. Brian Field*) Compared to London, this is paradise.

12. But compared to what Singapore has experienced in the last five years, would you say that it is slower than it was five years ago? - (*Assoc Prof. Brian Field*) I have difficulty in saying that, although I have been here for five years. But certainly my perception is that conditions have remained more or less the same.

13. The statistics show that it is slower. Therefore, it is not free-flowing compared to what it was five years ago? - (*Assoc Prof. Brian Field*) Slower, but this does not mean that it is not free-flowing.

14. I would put it to you that we are not on that flat part of the curve but somewhere up there? - (*Assoc Prof. Brian Field*) Somewhere in this range here.

15. Somewhere up there. And as you say, you do not know where the optimal point is. So where are we? - (*Assoc Prof. Brian Field*) I would suggest some-

*Assoc Prof. Brian Field (cont.)*

where in this range here. We must be very careful not to go beyond this point here.

*Dr Augustine Tan*

16. You must have changed your mind. Earlier, you said it was the flat portion. Now you have changed your mind? - (*Assoc Prof. Brian Field*) No. I said that the policy, as stated, has not been explicit about what the objective is. But it does ask for free-flowing conditions. Free-flowing conditions imply the flat portion. That was what I said. I am not suggesting that we are on the flat portion. What I am saying is the policy should not be directed specifically at achieving the flat portion.

*Chairman*] Thank you.

*Dr Wang Kai Yuen*

17. Prof., in deriving this curve, the delay imposed by the motorists, do you compute, say, based on queuing theory? How do you derive that particular curve? - (*Assoc Prof. Brian Field*) You can derive it from queuing theory. But normally you derive it with simple numerical examples by asking people what their perceptions of cost are. You just derive it in that way. There is a classic article which was written many, many years ago in fact to show how this curve is derived.

18. Would it be fair to say that the curve might accelerate much faster than what you have graphed? - (*Assoc Prof. Brian Field*) Yes. This graph is simply illustrative. It could accelerate. In fact, it does accelerate quite fast.

19. In fact, it could indeed be exponential at a certain point? - (*Assoc Prof. Brian Field*) Yes, it could go up very fast indeed. I would not like to say how fast.

20. Will you propose an operation of a road system where an incremental increase will cause an exponential increase in delay? - (*Assoc Prof. Brian Field*) Once you reach a certain level, every incremental increase causes a dramatic increase in cost, yes. That is true.

21. Can you tell us what level would that be? - (*Assoc Prof. Brian Field*) I am afraid I cannot tell you what level. Once again, we have to exercise judgment in determining the appropriate level. The way we can do it, rather than actually focusing on the cost and trying to determine the price that we should charge, is to look at traffic flows. We know what a free-flowing condition is. Let us assume that it is 30 km per hour. We can say that we will move to something approaching-26-27 kph, knowing that that gets to somewhere near the optimum. We can never know when we are at the optimum, but we can know when we are near the optimum. That is the important point.

22. But would it be a wise policy to operate the transport system near the optimum where any unforeseeable event might cause a complete paralysation of the system? - (*Assoc Prof. Brian Field*) I think we would suggest that it is better to operate a system near the optimum than further away from the optimum. I think that is the point.

*Encik Yatiman Yusof*

23. Prof., from your graph, the time element seems to be quite vague and you have earlier conceded that we are somewhere on the curve. What kind of time-frame do you think we will be reaching the optimum and which time-frame will exceed the optimum? - (*Assoc Prof. Brian Field*) If we do not do something and if we allow conditions to deteriorate, then we could reach this sort of range very quickly.

24. Assuming we have limited land and assuming that we have a steady growth of car population, what time-frame you think that we will reach saturation point? - (*Assoc Prof. Brian Field*) I would suggest that it depends more on how those cars are used rather than the actual growth of the car population. If we allow the car population to grow but we control it very carefully, in other words control their use very carefully, then it could be quite a long time before we reach saturation. If we allow the car population to grow and we do not control their use very carefully, then we can reach it very quickly.

*Mr Lim Boon Heng*

25. Can I put to you that we have to be practical? Government has got to be able to know how to determine what you call the optimum point. How do you determine this? Because drawing this graph is fine, but the Minister and his officials would have to find some way of determining this. How do you determine this? - (*Assoc Prof. Brian Field*) Quite often, economists, for a number of reasons, apply what they call a theory of second best. When they cannot say what

an optimum level is, they suggest that you should make small incremental changes to a particular policy in the direction of the optimum and evaluate the impact of each change before proceeding further. I would suggest that whilst we cannot determine what the actual optimum is, we are taking steps in the right direction, in the way we have adjusted, for example, the Area License fees. The roads in the central area are probably now better used during the operation of the Area License period than they were before. So we know that we are nearer the optimum now than we were before. That is the way we have got to do it. It is really the second best. Ultimately, if we introduce electronic road pricing, which is what we suggested in our paper, then it is much easier to manipulate policy to get nearer the optimum.

*Chairman*

26. You are aware that the theory of the second best is also known as the second best theory? - (*Assoc Prof. Brian Field*) Yes. I thought someone would say that.

*Dr Augustine Tan*

27. I am rather concerned at this theoretical presentation. For policy purposes, I think Government would need to know that if you are dissatisfied with the present policy, say, in terms of the actual number of cars on the road, how many more cars according to your theory, made operational, would that imply? - (*Assoc Prof. Brian Field*) First, we have to say that our presentation is not theoretical. I think it is because of the way this session is going this morning that we appear to have focused on theory. Our presentation



*Assoc Prof. Brian Field (cont.)*

is essentially conceptual focusing on broad strategy. That is our intention.

*Dr Augustine Tan (cont.)*

28. In other words, you have no idea of actual numbers? - (*Assoc Prof. Brian Field*) Yes, we have no idea of actual numbers. But what we are saying is that the car population is just one parameter. It is the usage of those vehicles that we think the focus of attention should be on. We are not saying that we should abandon ownership controls. What we are saying is that ownership controls should not be the principal focus of attention.

29. Then how can you say we are far away from the optimum when you do not have an actual idea of the numbers that you have in mind? - (*Assoc Prof. Brian Field*) I did not say we are far from the optimum. What I said was that if policy is directed to achieving free flowing conditions, then we are likely to move away from the optimum.

30. No. Right now, in terms of actual numbers, how far are we from your optimum? Another 100,000 cars, 200,000 cars, 300,000 cars, 50,000 cars? - (*Assoc Prof. Brian Field*) Once again, I really think that focusing on the vehicle population —

31. In other words, you cannot put a number on your theory. Thank you very much? - (*Assoc Prof. Brian Field*) What you can say is that the number of vehicles is only one variable and the number of vehicles does not determine what causes congestion. It is the usage of those vehicles.

*Chairman*] Dr Chen has a question. If there are other members of your group who would like to answer this, you are welcome. Thank you, Prof.

*Dr John Chen Seow Phun*

32. Prof. Field, can I follow up on this point? Earlier, you used CBD as an example to show that it is a scheme which improves the traffic situation. And if it improves and brings it near the optimum, it must mean that you are actually bringing the situation from the point beyond the optimum to nearer the optimum, and not from the part in between the flat curve and optimum towards nearer optimum. Because, as you have mentioned, the traffic actually becomes better. Is there an apparent contradiction in your example? - (*Assoc Prof. Brian Field*) No. If I can just say one thing about the CBD. First of all, can I say that I am broadly in agreement with the policy and I think the ALS scheme has been an excellent scheme. However, I think taking the point about optimums, if we look at the ALS scheme when it was operational when there was a \$5 licence fee for the morning, when you entered the CBD in the morning, the roads were empty. One of the things that we can say is that perhaps then the price was too high, because the object of pricing should be to optimize the use of resources. If the roads are empty, then those resources are not being used for three hours in the morning, suggesting that the price that was being charged was too high. So once again, we do not know what the optimum price is, but we can move incrementally towards it. The adjustment to \$3 suggests that we are nearer the optimum than we were.

33. My point is that before the CBD, was the traffic beyond the point of optimum or before it? - (*Assoc Prof. Brian Field*) Before the CBD, I would say that the traffic was well beyond the point of optimum, terrible congestion.

34. Right. Earlier, in your statement, you were saying that we are on the flat curve. If not then from the flat to the optimum. How do you reconcile this? - (*Assoc Prof. Brian Field*) Sorry. I did not say that we are on the flat curve. I said that policy, as stated in the press and the media, is to achieve free flowing conditions which is the flat part of the curve.

35. I think when the Government used the words "free flowing or smooth traffic", it does not mean that the Government is talking about no delays at all; in other words, no stopping. In fact, the Government used speed as a gauge? - (*Assoc Prof. Brian Field*) I am very pleased to hear that. And I think that that is something that should be stated more explicitly for members of the public.

*Chairman*

36. If we could move to a slightly different subject and perhaps some of the other members in your group would like to answer this. While on the one hand you say that we have actually free flowing conditions and we could accommodate a lot more cars, you also make the statement that you desire greater control over the vehicle population, to the extent that you want all buyers of new cars to scrap old ones. Could you reconcile that view with the view that you have free flowing conditions and you can allow a lot more cars? - (*Dr Steven Choo Kian Koon*) Mr

Chairman, if I may present another transparency and because the wordings are so small, I would also hand some copies for Members.

37. You have about two or three minutes in which to do it? - (*Dr Steven Choo Kian Koon*) Yes. I think the reason why we appear to be favouring so many different things is that we in fact did not make it explicit. But what we really wanted to show in our submission is this thing which we have called "Holistic Approach to Traffic Congestion Control". We would like very much to coordinate and integrate what we believe are two major sets of strategies that have important implications on traffic congestion. And the first set of strategies which we have been focusing on is really a set that is aimed at influencing the individual behaviour. But we believe that there is really the other side of the coin that is very important as well. This is another set of strategies that looks into the impact of community effort and community planning. On the side of the strategies aimed at influencing individual behaviour, control of ownership is just one half of the game. We also have restraint on usage. In the case of public effort, in our paper we included some discussion on the provision of public transport as required by the Committee and we also looked at regulation of land use. The major part of our concern is that some of these sets of measures do appear to conflict with one another and we need really to look at the set as a whole. What we have done is to look through them, organise each of these measures under those headings and to argue that every time we look at one, we really got to see it in the context of the whole. Here, we are really hoping that at

*Dr Steven Choo Kian Koon (cont.)*

the end of it all, we will be able to see this integration going on between those two sets of measures that we might be able to come up with something more equitable and at once efficient. That again is a tall order.

*Chairman (cont.)*

38. Are you suggesting that the Government has not tried to do this? - (*Dr Steven Choo Kian Koon*) No. We are very aware that the Government has done many things to move in this direction. But we feel that it is necessary to make it explicit.

39. What specifically would you like the Government to do that if it is not doing now in regard to this holistic approach? - (*Dr Steven Choo Kian Koon*) For example, we are now doing a review of the concept plan and it is an apt moment to consider what kind of impact the concept plan will have, what sort of generation of traffic it will bring. For example, in Seletar business park, that has now come on as one important area of development in the north-east corner of Singapore. That alone will have implications for all the surrounding areas. And so we would like to see that the transport planners of PWD get together with the planners of URA, for example, to look into this overall long-term problem of land use having an impact on congestion.

*Mr Chiam See Tong*

40. Can I put this question to you, Dr Steven Choo? You have mentioned something about this land use pattern.

Can you elaborate on this? - (*Dr Steven Choo Kian Koon*) Yes. I think we are well aware that land use in Singapore has been well planned ever since the inception of the concept plan in 1971. At the Governmental level, we already have very clear direction of where we want to direct the growth and so on. However, we are continuously making changes to those plans. That is precisely the nature of the concept plan, to allow for changes, to allow for growth.

41. Can you be more specific? Your answers are very general? - (*Dr Steven Choo Kian Koon*) To be more specific, the concept plan has a simple ring and linear concept of urban settlements. We are going to have settlements along the east-west coast. That is what we have done. Jurong on the west side, as the main magnet for traffic, eastern side the Airport and some industrial areas. Those constitute the east-west magnet, with the central area in the middle. And then we also have put a ring of settlements around the catchment area. That essentially is what we have been doing. But this form of development pattern necessitated and in fact incorporated the development of the MRT. That is why the MRT takes this pattern of an east-west line and a north-south trunk. In fact, there has been an integration of land use as well as transport planning. But we would like to see that continue in the current effort to renew and revise the concept plan.

*Encik Yatiman Yusof*

42. From the very beginning, when we planned our population settlements and distribution of our satellite towns, we placed great emphasis on decentraliza-

tion and to have self-contained housing estates as much as possible. Have these measures been effective to reduce population movement through vehicles and hence reduce road congestion? - (*Dr Steven Choo Kian Koon*) Perhaps I can invite Dr Koh to comment. (*Dr Amos Koh*) Mr Chairman, in our paper we have been a bit sketchy about the last point. We have had admittedly a rather short time to submit our paper. In fact, we would be pleased in the near future to submit a more detailed paper on land use and its interaction with transportation planning. The point that we are trying to make is that we are a bit concerned that hitherto there has not been a lot of attention given to the interaction between land use planning and transportation planning. To give an example, take the MRT itself. The MRT was constructed to allow the population all over the island access to the central area commercial core. But as a result of the construction of the MRT, it actually causes a greater concentration of commercial activity. And therefore in its wake generate more traffic demands, including private transportation demands to the central area. In fact, we are in general agreement with the expressed Government policy to consider decentralisation seriously, although we have a couple of points to make in the nature of cautionary points. And that is, decentralisation works against market forces. Because market force is towards more development in the central area. We have to be very careful about that. We want to make another cautionary point about the judicious choice of the sub-centre. We know, for example, that Tampines has been chosen as one possible area. We are a bit concerned that the choice appears to

be based on a geographic centre of a region rather than the centre of gravity of a population distribution. We would counter suggest that in fact to optimize the accessibility benefits of MRT stations in suburban areas, we should seriously consider the selection of some of these centres as possible commercial nodes to serve as the beginning of decentralisation policy.

*Dr Augustine Tan*

43. I disagree that market forces bend towards centralisation. Because obviously the cost of congestion may get so high that decentralisation becomes an obvious alternative. But you have some interesting points in your paper. One of them was that you advocate continuing control of car ownership measures together with restraint on usage measures and I am in favour of the same thing. You made a further interesting point that ironically or unintentionally, the ownership policy on cars has really made car ownership relatively cheap because of the appreciation over the years of used cars, partly because of increasing ARF and partly because of rising car costs. Would you like to make some further comments, especially Prof. Lim, I would like to hear from you? - (*Assoc Prof. Lim Lan Yuan*) I would ask Dr Sim to answer your question. (*Dr Sim Loo Lee*) We would not like to emphasise too much on this point about car ownership being relatively cheap. This has been the case over the last few years, partly due to affluence of the population. Comparatively, the car ownership becomes cheap. We feel that if this situation remains, with growing affluence in the years to come, then people can still keep on affording to buy cars even with other measures. Car

*Dr Sim Loo Lee (cont.)*

ownership control is very important in the sense that we should try to aim at these people who feel that car ownership is still relatively cheap in relation to their income, with growing affluence. So that ties in with an earlier question on this support for the PARF scrapping vehicles. This is a good measure to control the car population. We feel that in addition to PARF, we should set a quota for the car population increase. But we are not in favour that the quota should discriminate against, say, income groups, professionals, family size. It should be a quota whereby whoever can afford or who would bid for it can do so, not differentiating between different groups. But the other aspect of car ownership control is, we feel, public education. Studies in some other countries have shown that car owning is sort of a status symbol. Even if the cost of ownership increases, there will still be people who would keep on trying to hang on to the car and forgo other things. So we feel that public education might come in useful in this case. Maybe we could discourage, say, cars from being used as prizes in contest and things like that. Because that gives the idea that the car is a status

symbol. Besides PARF, we are recommending different measures like quota, public education and other measures. In Singapore, campaigns work very fast. The results come through very fast. Maybe if we can have some campaigns or public education on car ownership, it might help.

*Chairman*] Thank you very much. I would like to thank your group, Prof. Lim, for your contributions.

*Mr Chiam See Tong*

44. Mr Chairman, before they go, can I make a request? We have seen many representations on car ownership, on usage and even on public transport. But there are very few representations in regard to regulations of land use. Just now, Dr Amos Koh did mention that due to time constraint or short of time he was unable to put a fuller report on this aspect. Perhaps I wonder if you could put up an extra paper to give a fuller insight into the land use. Would this be possible? - *(Dr Amos Koh)* We would be pleased to do so. *(Assoc Prof. Lim Lan Yuan)* We would do so within the next couple of days.

*Mr Chiam See Tong*] Thank you.

*(The witnesses withdrew.)*

## MINUTES OF EVIDENCE

19

2 NOVEMBER 1989

20

Paper No. 56 - Mr Toh Choong Fook of 15 Lakme Street, Singapore 1545, was examined.

### *Chairman*

45. Mr Toh, for the record, would you please state your name, address, occupation, organisational affiliation and your citizenship? - (*Mr Toh Choong Fook*) My name is Toh Choong Fook. My address is 15 Lakme Street, Singapore 1545. I work as a Service Engineer in a private company, Rank O'Connor's (S) Pte Ltd. My citizenship is Singaporean.

46. Mr Toh, you told an interesting story in your submission that you wanted to give up your car and in fact you gave it up. But after some time you found that you could not really do without it. So you went back and bought a car. Could you explain to us your rationale? - (*Mr Toh Choong Fook*) Actually it is not that I wanted to give up the car. When I joined Rank O'Connor's I did not have a car. But my company had a vehicle more or less at my disposal to go about my job. I was able to get along with my job quite well. After some time, as I stated in my letter, perhaps because of the age of the vehicle, they decided to sell it off, scrap it or whatever. So I had to rely on public transport to go about my job. As I stated here, I found that using public transport to go about my job was quite difficult because, as a Service Engineer, I have to answer calls from my customers. My customers normally require me to be at their place as soon as possible. Which customer would not want you to be there the moment the machine breaks down? So they would require me to be there rather quickly. In order to get my job

done, I have to bring with me a set of tools, some manuals to refer to, some test equipment like Oscilloscope and things like that to help me to trouble shoot. It would also be good if I could bring along some spare parts that I suspect may be the cause of the problems, so that if I can trace the problem I can just change the parts and get the machine going as soon as possible. My area of work is on medical equipment. These doctors would like the equipment to be working, if possible, the moment when I am there. So I have to bring this sort of equipment along. I did try going by bus. It was cumbersome to carry my two bags, manuals and all that to climb up the bus. Sometimes, especially when you are travelling during lunch time and after school, you have to hang on to the rail. It was quite a problem. Even if I could get a seat, with all my equipment I would probably occupy a seat that is meant for two persons. That is not very fair to other bus users. Then I tried using taxis. Besides the cost of using a taxi, I found that it was not very convenient too. As I stated in my representation, if I were to go to one customer and attend to that customer alone and then I come back to my office, there is no problem. I can bring all the things that I need for the job and come back. But quite often I have to attend to maybe three or sometimes four customers and there are different problems. What I have to do is to bring all the things that I need for all the four jobs and to go from one place to another place in order to save time. Actually, what I need for

*Mr Toh Choong Fook (cont.)*

each customer maybe just a portion but then I have to unload everything from the taxi. Being involved in medical equipment, sometimes I have to go into the operation theatre which is supposed to be a sterile area. So it is a bit inconvenient to bring along a lot of other equipment that you do not really need. Then there are other times also when the reverse occurs. It is not to a sterile environment but to an environment that is a bit oily around. All my equipment are actually exposed to whatever vapours that are around.

*Chairman (cont.)*

47. In other words, Mr Toh, your problem is that you need a car for your work, for your job? - *(Mr Toh Choong Fook)* Yes.

48. You are saying then that you do not really need a car to go to work or to bring your family out. That is less important? - *(Mr Toh Choong Fook)* That is less important.

49. Your problem is really doing your work with your car? - *(Mr Toh Choong Fook)* Yes.

50. Would you then say that if you did not own a car but the company provided you with a car for going about your work, maybe a commercial vehicle or a company car that is used for going around to different locations, that would solve your problem? - *(Mr Toh Choong Fook)* I would say that would solve the problem to a very large extent.

51. You said "to a large extent". What doesn't it solve if you have a car to do all this, carrying your scopes around

and meeting doctors? - *(Mr Toh Choong Fook)* Of course, to be very frank and very fair, if I have my own car it is also useful for my own private use. That is also part of the benefits.

52. But you are willing to give it up. You gave it up once. But you went back to the car because of your work? - *(Mr Toh Choong Fook)* Yes.

53. Can I then conclude that if a car is made available to you, either a car or a commercial vehicle that you could use for going about your work, you will be prepared to give up your car? - *(Mr Toh Choong Fook)* Yes, I would say that. Of course, as I said in the later part of my submission, with a lot of disincentives on company ownership of cars, for example, the road tax is already double the normal private car ownership, most companies would not be able to have sufficient cars for all their staff to go about their work. That is why my company, for example, would rather extend to me a car loan in order to help me to get a car to go about my work rather than purchase a car for me to go about my work. In fact, the car that I had, as I said when I joined O'Connor's, was not actually meant for my use. It was a company vehicle meant for the staff to use. But what happened was my predecessor, the person who was doing the job before I joined the company, felt it was very inconvenient. Because when a doctor called up, he could not give the doctor a definite time to attend to the problem as he had to see to the availability of transport. So what he did when he used the company transport, he just simply held on to the key and refused to give it back. Of course, the person in charge grumbled at him and

asked him to return the key. But because he was persistent, the car became more or less for his use. When I joined the company, I also more or less used the car. But if the company does not own any vehicles, then again there is a problem. When a doctor calls up, I cannot really say when I can attend to him.

*Chairman*] Thank you. Dr Tan, you have a question.

*Dr Augustine Tan*

54. Mr Toh, I think the Committee is sympathetic to your need for a car in the course of your job. But for policy purposes we need to set up criteria - who needs a car, who does not need a car and that is where the thorny issue is. Do you have any ideas? Other than that you need a car and people like you need a car, who else would need a car? - (*Mr Toh Choong Fook*) I would say basically service people like me, service engineers. I would say that is one category who would probably need a car. Sales people can probably arrange their time schedules. Their appointments can be made more flexible. But if your TV is spoilt, you expect the serviceman to be at your place at double quick time, do you not? I would say basically service people.

55. There are a lot of people who would say the same thing. The journalists, for example. Do you think journalists need a car in the course of their job? - (*Mr Toh Choong Fook*) I would not like to comment on that. I would let the journalists make their own point. Generally, I would say service people.

*Mr Chiam See Tong*

56. Mr Toh, can I put a question to you? Basically, the point you are trying to

make is that there are people who want cars out of necessity and not just wanting it for status symbol? - (*Mr Toh Choong Fook*) Right.

57. The Government is controlling the car population. It has to put up probably higher taxes, both on usage as well as on ownership. Here is a dilemma. What would you suggest for those people who need a car out of necessity? What would you say? Would you say that they would have to be given exemption? - (*Mr Toh Choong Fook*) Of course, everybody would prefer some kind of exemption. But I also appreciate the fact that there need to be some kind of control because I would not like to go into CBD, for example, and jam it up. I myself would not like that. I would say probably the solution could be either some kind of exemption or, like in the case of the previous CBD policy where private cars going into the CBD had to pay \$5 and taxis had to pay \$3, if I am not mistaken, at the point of time, it is at least a reduction and it discourages, for example, the taxis from going into the CBD unless they are really needed. It may not be a total exemption but maybe partial exemption or partial rebate. So that people would not just go into the CBD for nothing or to use the car excessively for nothing.

*Encik Yatiman Yusof*

58. We take the point you are saying that owning a car for you and for professionals like you is absolutely necessary. That is because you have to perform your job. If the company gives you a car and makes a ruling that you do not drive the car home but you pick it from the company's premises, use it, and return it after



*Encik Yatiman Yusof (cont.)*

use, would you be unhappy? - *(Mr Toh Choong Fook)* I would still be happy.

59. Still happy? - *(Mr Toh Choong Fook)* Yes. Of course, I would be happier if it could also be for my home use. That is human nature, is it not? I would still be happy.

60. I ask this question because we have a lot of lorry drivers and van drivers who are working for a company who also claim that cars are absolutely necessary for them. But these are people who take the cars back to their housing estates, park at their car parks and congest the road. What is your comment on that? - *(Mr Toh Choong Fook)* Actually, I do not approve of such practice. In fact, when I had the car for my use, as I said, I did not drive it home. I left it in the company premises and I took a bus back. I took a bus to the company premises when I had to use it. So I do not approve of people who drive their vans or lorries home and park them at their home and take up other people's space. That is not fair too.

*Dr John Chen Seow Phun*

61. Mr Toh, to those who need a car and given the opportunity to own a car and it is made easier for them to own a car, what happens if he changes job? Supposing you allow a person to own a car because he needs a car or give him some exemption, as you said. But you know that people change jobs very frequently. So what happens then if that is the case? - *(Mr Toh Choong Fook)* If he changes job and the car is not needed any

more, then the exemption should be removed from him.

62. What about car ownership? If you allow him to own a car or give him some kind of exemption in terms of ownership, do you take the car back from him once he does not need the car? - *(Mr Toh Choong Fook)* Your disincentive on car ownership, for example, would probably be in terms of, let us say, a certain tax added on it or something like that. If you decide, for example, that you want to exempt him from this extra tax, once then he changes to a job that does not need a car, you impose the tax on him. He has to pay the tax. So he has to decide whether or not to give up his car because his job does not need a car anymore. It is as simple as that.

63. Do you think it is practicable to do that? - *(Mr Toh Choong Fook)* I would not say that it is totally impracticable.

64. So you keep on tracking whether people need a car or not. Because once he does not need a car you have to impose a tax or a surcharge, a kind of backdated ARF or whatever? - *(Mr Toh Choong Fook)* The details of how you are going to handle this can be worked out by maybe a separate committee looking into it. It is only fair that if he changes his job and he does not need a car, then he should not have a car and therefore whatever incentives that were given to him should be withdrawn.

*Chairman*

65. Thank you very much, Mr Toh, for your evidence? - *(Mr Toh Choong Fook)* Thank you, gentlemen.

*(The witness withdrew.)*

Paper 64-Mr Christopher Herbert of Seamost Technical Services Pte Ltd, 17 Tuas Avenue 3, Singapore 2263, was examined.

*Chairman*

66. Mr Herbert, for the record, could you please state your name, address, occupation, organisational affiliation and citizenship? - (*Mr Christopher Herbert*) My name is Christopher Herbert. My office address is 17, Tuas Avenue 3, Jurong. I work for a company called Seamost Technical Services. I am the Controller of Marine Operations. I am a UK citizen but I have been a permanent resident of Singapore for 39 years.

67. Mr Herbert, you suggest in your paper that cars are too easy to buy because of cheap financing; and readily available financing. Are you suggesting that the Government should make it very difficult to obtain financing to buy cars? - (*Mr Herbert*) Mr Chairman, I am not suggesting that the Government makes it very difficult. I am suggesting that people should be encouraged preferably and, if necessary, by legislation, that hire-purchase at the present moment is extremely easy to obtain. As I said in my submission, I gather there have been recent instances of promotion campaigns where some car dealers have been offering to let people buy cars with no down-payment whatsoever, pay no cash and drive the car away immediately. You can obtain hire-purchase for periods of up to six years. You can pay instalments either in advance at slightly lower rates or you can pay them in arrears and the interest rate is slightly higher. The finance companies offer to tailor the agreement to suit the purchaser of the car. It was

reported recently that the total amount of car loans held by Singapore finance companies has increased from \$290 million in 1986 to the current figure of \$1.1 billion which is an increase of over three times. I feel that it is linked to the same offering of credit and no security overdraft on loans for travelling and everything else by credit card companies and banks. If you have not got the money, you cannot buy something, whether it is a TV set, a cooker, a refrigerator or a car and I feel that hire-purchase should be brought into a more realistic figure. I mentioned in my submission that the only time I ever bought on hire-purchase I had to pay it in two years. In those days, car prices were very much lower than they are now but, at the same time, so with salaries. Everybody's income was very much lower. I feel that, as a starter, hire-purchase agreements should be brought down to a maximum, as I suggested in my submission, of two years for second-hand cars and four years for new vehicles.

68. These terms, Mr Herbert, are subject to the free market. It is up to financiers to set their terms? - (*Mr Herbert*) Yes, the finance companies.

69. By intervening into the free market, we are basically asking them to make their terms higher and more expensive. You will end up with a situation where there is excess demand and not enough supply, in which case you either raise the price or you have a system of allocation of hire-purchase. How would you go about it? - (*Mr Herbert*) I am afraid I

*Mr Herbert (cont.)*

am not an expert on the economics, Mr Chairman. It is that I feel the demand for financing is there and there should be a limit placed either on the amount of finance that can be given to any one individual or preferably on the period in which he has to repay the money he borrows. This will provide a natural control over it. But for many years, hire-purchase was for a maximum of two years. Sometimes it used to be one year. I feel that to offer six years to pay for a car which is not going to be in very good condition at the end of the six years -

*Chairman (cont.)*

70. But the financier felt that from his business point of view, those were fair terms. Would you want the Government to intervene in the market to say that you should charge more than what the market says is the going price? - (*Mr Herbert*) I think the increasing car population in Singapore is a very serious problem that the Government is trying to address. I think the Government has to intervene.

71. Would it not be easier just to make cars more expensive rather than make financing more expensive? - (*Mr Herbert*) I think it should be one way or the other.

72. In which case, you are intervening in two markets - the market for cars and the market for financing? - (*Mr Herbert*) The car prices have gone up and the financing has become easier to accommodate it. The car dealers are falling over themselves to sell cars. Everyday the newspapers carry full pages of advertisements.

73. My point is that financing has to do with the market for funds? - (*Mr Herbert*) Yes.

74. In order to restrict car ownership which is what you are propounding, you also want to intervene in another market, which is the market for financing for funds. I am suggesting to you that perhaps it is simpler to just intervene in the market which you are concerned with, which is the market for cars? - (*Mr Herbert*) I think the question of available credit is one that is becoming a world-wide problem these days, not just for Singapore car buyers, but on a country-wide basis in some places, ie, the banks have fallen over themselves to lend money.

75. So you are now against the financial system in the world of making money easily available? - (*Mr Herbert*) I think it is linked to it. It isn't?

*Chairman*] We will note that point.

*Dr Wang Kai Yuen*

76. Mr Herbert, in your submission you made several points about car parks. One point you made is that before people can purchase cars, they should show proof of parking spaces. Would you like to advocate this system to be implemented in Singapore? (*Mr Herbert*) I am not proposing how it should be implemented, Dr Wang. The point is that the sectors of the population who can probably least afford to buy cars and own cars, if they want to park their cars in an HDB housing estate, they have to pay \$50 a month to park because there is no other way, unless they go and park it on a piece of land near the housing estate.

Offices have to provide car parks for the tenants. Flats, condominiums, all these are now required under the planning laws to provide car parking spaces. Most houses have, in their original designs been provided with access drives which cars can be parked. What I am suggesting is that the owners of the houses should park their cars off the roads. The roads are provided for access and use by motor vehicles. They are not primarily provided, as far as I am aware, as parking spaces, and certainly not as free parking spaces.

77. Am I to understand that you are advocating that if residents in the private housing estates park their cars on a public road they should be charged for parking? - (*Mr Herbert*) Everybody else has to pay if they park in an HDB estate. I think it is only fair they should. They either park on their own property or if they park on the road, they should pay.

78. In other words, you would like to see a programme where the Government would start painting yellow boxes in all the residential estates. If car owners park on a public road, they will have to pay for the privilege? - (*Mr Herbert*) No, I do not think it is necessary to do that, Dr Wang. If you park on a coupon parking spot which has already been painted, it is fine. You cannot park against the white line, double yellow lines or double white lines. If there is anywhere else you want to park on the road, then you buy a coupon or you buy a monthly or six-monthly permit. If the traffic police sees a car without that permit prominently displayed on the windscreen, he is parking without a permit.

*Mr Chiam See Tong*

79. Mr Herbert, may I go back to your earlier point about easy financing for cars? You have stated in your submission that in 1967, from your experience, you had to pay 20% of the total price of a car and you had to pay the balance within 24 months. But at the present time, new car loans are allowed up to 90% and payable over a period of six years, and for second-hand cars loans are also available up to 90% and payable over four years. Now, I am suggesting to you that these easy loans are due to the fact that there is PARF in our present system and that I believe now most people agree that because of PARF, there is a residual value of second-hand cars and it props up the value of the second-hand cars. In fact, buying a car is no longer a consumption item. It has even been said that it is an investment item because the values of good second-hand cars seem to go up. From the finance company's point of view, there is good collateral in a second-hand car because the values are going up. For this reason, they are willing to give easy finance because their loans are secured. But if the day comes when PARF is abolished or if there is no second-hand car value, then the finance will automatically dry up. Do you not agree? - (*Mr Herbert*) I think it is probably very true, as you said, if the second-hand car values could be brought back to a realistic figure. I agree it is artificially inflated at the present moment. If that was brought back to a realistic figure, then I think the rest of it will follow. But you can still buy a new car and you can buy it on a long-term financing. It is six years even in some cases for second-hand cars.

MINUTES OF EVIDENCE

33

2 NOVEMBER 1989

34

*Mr Chiam See Tong (cont.)*

80. At the moment, there is free market in relation to loans given. Government has not intervened in this area yet. But if the day comes when the second-hand car values drop, then financing will automatically dry up, isn't it? - *(Mr Herbert)* I do not know. I am not a financier. I am sorry. You may be right.

81. Because the security on the second-hand car will not be there any more? - *(Mr Herbert)* Nobody thinks so.

*Chairman*] I think he has answered the question.

*Mr Lim Boon Heng*

82. If second-hand car prices drop, then would it not be easier for people to buy cars? They would not need so much financing? - *(Mr Herbert)* Yes. That is also true. But if you adopt a policy that has been recommended by some other organisations whereby if you want to buy a new car you have to scrap an old car, you will gradually eliminate some old cars. At the moment, over 6,000 second-hand cars changed hands in August. It is a lot of cars. But they are getting the money from somewhere.

*Chairman*

83. Thank you, Mr Herbert? - *(Mr Herbert)* Thank you.

*(The witness withdrew.)*

Paper 59 - Mr Han Fook Kwang of 4, Tavistock Avenue, Singapore 1955, was examined.

*Chairman*

84. Mr Han, for the record, could you please state your name, address, occupation, your organisation, and your citizenship? - (*Mr Han Fook Kwang*) I am Han Fook Kwang. My address is No. 4, Tavistock Avenue. I am with the Straits Times. I am a Singapore citizen.

85. Mr Han, could you also tell us your career background? I believe you have worked with the Ministry of Communications and Information before? - (*Mr Han Fook Kwang*) Yes. I joined the Ministry of Communications and dealt mainly with land transport matters in 1979. I was posted to the Ministry of Labour in 1985, for 1½ years. I left the Ministry of Labour in 1987 to join Singapore General Hospital (Pte) Ltd when they restructured the hospital and joined Straits Times early this year, in February.

86. Could you also state whether you feel in any way constrained by your previous assignment in MCI? Do you feel any constraint about having to defend any of the policies to which you were a party? - (*Mr Han Fook Kwang*) No. I do not think so. I am making the submission as a member of the public.

87. Thank you. In your submission, you have stated that you are not in favour of car ownership restriction as a principal measure for controlling congestion on the roads. Would it be correct to paraphrase you as saying that car ownership restriction policy is a blunt instrument compared to car usage policy? - (*Mr Han*

*Fook Kwang*) First of all, my position is not that I am against car ownership policy per se. I think it is a question of emphasis. If you look at the present mix of measures, basically you can divide car restraint measures into ownership and usage. I think that is pretty clear cut. Ownership measures being ARF increases, road tax increases; usage measures being parking charges, ALS, and to a certain extent, petrol taxes. My suggestion is a very simple one. Basically, if you look at the present mix of these two sets of policies, I think overwhelmingly, they are weighted towards ownership measures in the sense that the Government has made it rather expensive for people to own cars. There are of course the usage sets of measures (parking charges, ALS, and so on). What I am basically arguing is that there is greater scope in the future for using more usage measures because of the advantages that I have mentioned in my submission and because of some of the undesirable effects of ownership measures which we have seen over the past few years or so. That is basically my position. Yes, I would go along and I have made in my submission that ownership measures are to a large extent very blunt because they affect everybody, regardless of their contribution to congestion, whereas one of the great advantages of usage restraint is that it can be made very selective, both in terms of location, time and indeed even types of vehicles that you want to target.

88. Could you be a bit more specific? In advocating more use of usage

*Chairman (cont.)*

measures, are you thinking in terms, for example, of car parking charges being raised to the level of, say, downtown Sydney which is about \$5 an hour? And are you thinking of ARF being reduced to allow more ownership of cars? - (*Mr Han Fook Kwang*) I think there are only a fixed number of usage restraint measures that are practicable. Yes, parking charges, I think is a very effective measure and, in my view, has been under-used in the Singapore context. In my submission, I gave an example of parking charges 30 years ago and compared to today. I think if you calculate the real cost of parking, it is quite obvious to me that we have not used parking charges as a deterrent usage measure. Other examples are the Area Licensing Scheme. I think that can be further extended both in terms of location, time and even concept. I do not think it needs to be restricted to a zonal sort of concept which we have today. I think it is possible to do it along selected roads for example. I do not think I have advocated reducing ARF in my paper. My position is that if you want to use usage measures, if you want to increase parking charges and ALS charges and all that, then what I am saying is that you should not also increase ARF and all the other ownership charges. You should not do it. My recommendation is that in the future, say three to five years down the road, measures should be concentrated on usage, keeping ownership restraints on hold.

89. Are you aware that the Government believes that for usage measures to be effective, they have to be quite punitive. In other words, the effect of car

parking charges, if you increase it by 10-20%, the effect of that on car usage is likely to be not very large compared to a 10-20% increase in cost of a car. Therefore, in order for usage measures to be effective, you have to talk in terms of not 10-20% but possibly even several hundred percent insofar as car parking charges are concerned. If that was true, how do you think the Singaporean population about whom you are very concerned would react to a situation where usage measures are tremendously increased by very high orders of magnitude, in order that ownership measures can be restrained? - (*Mr Han Fook Kwang*) I do not think it need be any more punitive than ownership measures. In fact, I would argue that usage restraints need to be, broadly speaking, less punitive than ownership restraints to be effective, for the simple reason that ownership measures - I have mentioned in the paper - in a sense affect the value of the vehicle. So the deterrent effect is to a certain extent negated. When you increase ARF, you have automatically increased the value of existing vehicles. So existing owners have been protected by the increase. And worse, from a public policy point of view, because they have seen the value of the vehicle increase, they automatically get a windfall gain. Not only that, but ownership measures, like increases in the ARF, can also be financed by financial institutions and they do it all the time. Whereas usage measures have to be paid out of the pocket. It is cash. So the punitive effect of a usage restraint is greater. It is a bit difficult to compare the punitive effects of ownership and usage because it is slightly more complicated. Ownership

measures like the ARF have to be depreciated over a certain length of time. There are interest charges to be taken into consideration. So it is a bit difficult to compare what a certain percentage increase in ARF is equivalent if we translate into a certain percentage increase in parking charges or ALS. But conceptually speaking, I would argue that a usage restraint need not be more punitive than ownership restraint to be more effective.

90. I want to take you on this point that you think that usage measures involve cash whereas ownership measures involve credit, and therefore no cash flow. Is that really right? If you take a \$50,000 loan over a three-year period, do you not have to fork out cash every month? - (*Mr Han Fook Kwang*) Yes, you do.

91. Of course, the orders of magnitude are not small compared to CBD charges or parking charges? - (*Mr Han Fook Kwang*) Yes, I take that point. But you still do have somebody willing to finance that expenditure. Nobody is going to finance you for your parking charges, for your ALS fees or for your petrol expenses. No financial institution is going to finance you.

92. But you concede the point that ownership measures put as much if not more cash demands on the user as to usage measures? - (*Mr Han Fook Kwang*) Yes.

93. In fact, if you work out the numbers, I believe you will find that the numbers are much larger than for ownership? - (*Mr Han Fook Kwang*) That depends on the ownership measures.

94. No, at present levels? - (*Mr Han Fook Kwang*) At present, of course. At present, the usage restraints, as I said, have been under-used.

*Mr Ng Pock Too*

95. Mr Han, thank you for your submission. The main thrust of what you said in your paper was that we should continue with usage measures rather than ownership measures until the electronic road pricing system comes on stream? - (*Mr Han Fook Kwang*) Yes.

96. You seem to place a lot of hope on the electronic road pricing system. Can you tell us, is this really our panacea to our problems? - (*Mr Han Fook Kwang*) I cannot say whether it is a panacea. But I suppose the electronic road pricing system represents the ideal usage restraint from an economic, from a theoretical, from a traffic viewpoint. You have an electronic road pricing system here which does everything that a traffic planner can conceivably want it to do. I do not think anybody can say whether it will materialise in five to seven years' time. But the arguments for using it are very compelling. Basically, they are usage arguments as opposed to ownership arguments. My position is that if the Government views the advantages of ERP so highly and is prepared to invest so much, I suppose it is a concession that the usage measures are the way of the future. That is why they want to implement the ERP. Even if ERP does not materialise, I think there are enough usage measures at the Government's disposal to continue using them. In the event that ERP does not materialise in five to seven years, even in five to seven



*Mr Han Fook Kwang (cont.)*

years' time you would have in place a set of usage measures which hopefully would be effective.

*Mr Ng Pock Too (cont.)*

97. Can I ask you, in your own assessment of the traffic situation after the various measures have been introduced in the middle of this year, the current combination of usage and ownership measures, are they effective? I am not clear from what you have said in your paper. Are you saying that you are advocating stronger or stiffer usage measures to keep congestion under control? - (*Mr Han Fook Kwang*) To answer the question, while I concede it is effective, I would also argue that you can make any set of measures as effective as you want it to be merely by increasing the cost of owning or using vehicles. If effectiveness is your only criterion, then you can do it very easily. If you raise ARF by another 100% tomorrow, or if you raise parking charges by 100%, certainly it will be effective. I think the question is really which set of measures are better in terms of effectiveness, in terms of being equitable, in terms of being efficient. I think no one would argue that traffic flows relatively freely in Singapore. Therefore, the measures have been effective. The question really is, can this situation continue in the next five to seven years? What needs to be done to make it like this in the next five to seven years? I am arguing that it is usage measures which you should really be looking at to achieve this particular situation.

98. But usage measures, as all of us know, come to a point where it makes a lot of people unhappy. You started off your paper by saying most Singaporeans want free-flowing traffic on the roads but are unhappy with Government measures to tackle the traffic problem. The question is, if you are saying that as of now the situation is under control and in the next few years with growing traffic problems we may have to have stiffer measures. How do you have a situation with free-flowing traffic and at the same time keeping the most number of people in Singapore happy with the situation? - (*Mr Han Fook Kwang*) My position is that in fact with effective usage measures, you would be able to allow a greater number of people to own cars. The argument is quite simple. I think congestion is a problem basically during peak periods of the day when many people want to use their cars. If you have usage restraints which discourage them, then theoretically you can have more people owning cars but not using them on the roads. And if people do indeed aspire to own cars for whatever reasons, maybe not to drive to work during the peak hours but for social and whatever reasons that they have, if that is indeed the case, then I think usage restraints will enable you to achieve that objective to a greater extent than ownership restraint. In fact, I think that is the situation in most of the big cities in the world. In London or New York, many people in fact do not drive their cars to work.

*Dr Augustine Tan*

99. There is a distinct difference. You are talking about London, New York and other big cities. In other countries they

have a big hinterland, large rural areas, a countryside. So if I were to live in London or on the outskirts of London, I could own a vehicle, keep it in the garage, I will be happy to commute by subway to work, and then use my car for weekend enjoyment. But for Singapore, that option is really not there. It is a city state. So we must grapple, must we not, with the fact that there is an absolute limit to the number of cars we can put on the road. If we wanted to, from one end of the road to another, whether expressway or any other road, we can just put cars bumper to bumper and say, "All right. What is the maximum number of cars we can have on the road?" You can increase by another 200,000, 300,000. But there is a limit. And as long as there is a limit, there must be some rationing device, whether you use a quota or your pricing system, but the price of owning a vehicle must go up. You can delay it for a while through ERP and other usage measures, but it is an inevitable fact of life. We must come back to more basic issues. The car represents two things: One is a status symbol. Number 2, and more importantly, it is the most efficient means of transportation so far as the individual is concerned. If you are merely interested in the status symbol, we can get the toy manufacturers to manufacture BMWs and Mercedes on a large scale without the engine. People park it in their garage, it looks good, they feel good, but it is not going to serve any purpose. So I think those who advocate usage measures rather than ownership measures seem to think that people are quite happy to buy a car and keep it just for the sake of a symbol. People buy cars to use them. It is going to take tremendous disincentives

via usage measures to persuade people to keep their cars in the garage or they go to work via MRT or the bus? - (*Mr Han Fook Kwang*) No, in advocating usage measures, I am certainly not emphasising the status symbol of cars. Let me come back to your first point about the absolute limit of cars that the roads can take. I think that is true, but it is also a dynamic number. Let us take it hypothetically. Supposing we do not have any usage restraints at all and the policy is wholly focused on ownership. Once you can afford to buy a car, you can use it any number of times on the road without paying any number of charges. Then I would argue that that would represent the least number of cars that you can possibly have before the roads become totally congested. Because once a person buys a car, he will want to use it as frequently as possible since he has already bought it. On the other hand, if you have more severe usage restraints, then more people can own a car.

100. I am not disputing that. But with whatever measures that may be introduced, there will still be an absolute limit. I mentioned the bumper to bumper case? - (*Mr Han Fook Kwang*) My position is that with more severe usage restraints, more people will be able to own cars. Let us take a simple scenario. Without usage restraints, you can have maybe 350,000 cars on the roads before the roads become heavily congested. With more severe usage restraints, maybe you can afford 450,000. And if indeed 100,000 more people are able to own cars and they are happy as a result and the usage restraints are just as effective and the roads are as free flowing, then why not.

*Dr Augustine Tan (cont.)*

101. Okay. But you still come to a limit? - (*Mr Han Fook Kwang*) Yes.

102. That is my point. Whatever the period, in five years' time or in 10 years' time, there has to be zero car population growth so far as cars are concerned. Would you agree with me? - (*Mr Han Fook Kwang*) In five years' time?

103. Whatever number of years' time. Whatever period down the road, there must come a point in time when there is zero car population growth. Can you think of a technology that will enable us to use our roads more efficiently so that you can keep on increasing the number of cars? Do you agree with that? - (*Mr Han Fook Kwang*) I agree. I think the point is, at which point in time how many cars you have before you reach that position? My position is that with usage restraint, that number can be increased, more so than if your measures are largely concentrated on ownership measures.

104. Are you aware of the MCI's study which shows that at 350,000 cars on the road there will be severe congestion on the road? We have already 250,000 cars today. Somewhere between that figure, severe congestion is already coming in, irrespective of the usage measures which you are talking about? - (*Mr Han Fook Kwang*) It depends largely on the effectiveness and severity of the usage measures. I would like to see the scenario of the usage measures in the 350,000 model. I think that is an extremely important factor to take into consideration.

105. May I ask whether you have considered cost of production and cost of doing business arising from usage

measures? Nobody has given thought to that. There is an increased cost of moving goods from point to point. It is so much through your usage measures that they render certain things unprofitable and uncompetitive? - (*Mr Han Fook Kwang*) Equally so with ownership measures.

106. There you know what you are coming up against? - (*Mr Han Fook Kwang*) I am not saying that usage measures are less costly than ownership measures. I am not saying that. I agree with you entirely that usage measures will increase the cost of transportation. So will ownership measures. But I think if you look at the advantages of usage measures over ownership, there are many and they are compelling. Cost is something that is inevitable. Whether you use ownership or usage measures, it is going to increase the cost of businesses.

107. One affects the consumer and the other can affect the producer. They are a totally different kettle of fish. And politically you are making 250,000 people unhappy with every usage cost increase. But with the other measure, as you mentioned, you are making 250,000 people happy every time you raise ARF prices? - (*Mr Han Fook Kwang*) I do not think that is desirable.

108. Whether desirable or not, it is like land prices and property prices. With economic development, those who own land and property get happier. It is an inevitable fact of life? - (*Mr Han Fook Kwang*) You are making all potential car owners unhappy. The young professional now sees the prospect of not owning a car. There are trade-offs but I think the

advantages of usage restraints over ownership ones are there.

*Encik Yatiman Yusof*

109. May I ask you a question? You seem to believe that car ownership should be given greater chances. Given that the reality of Singapore is such, ours is a highly urbanised society, compact living. We even have to buy earth from other countries for reclamation, to make our island bigger. Therefore, the land value and land utilisation vis-a-vis car population control will have to be taken together. How do you reconcile your suggestion that we should be more flexible on car ownership but more punitive on car usage when there is an absolute limit to the space and the value of the land and we also have to consider the opportunity cost involved? - (*Mr Han Fook Kwang*) I am not advocating a free-for-all ownership policy.

110. But you have some doubt when you said that you have yet to see in real operation the situation of 350,000 cars. That is the question mark you put on MCI's limit? - (*Mr Han Fook Kwang*) No. What I am saying is whether Singapore roads can accommodate 350,000 cars or 450,000, say, for argument's sake, depends to quite a significant extent on how severe your usage restraints are. What I am saying is that if in the next, say, five years, Government concentrates on usage measures, I think it is possible to stretch that number of 350,000 to a bigger number. I cannot say what that number is. Certainly, it is not limitless.

111. What is your own limit from your own experience and perception? - (*Mr Han Fook Kwang*) I do not think we

can answer that. It is not possible to say how many cars the roads in Singapore can accommodate.

*Chairman*

112. Would you say it is also dependent on whether or not more resources were allocated to expanding the infrastructure for road transportation, for example, more highways, more two-tier highways, more underpasses? - (*Mr Han Fook Kwang*) That is a separate question.

113. But the limit does depend on the infrastructure? - (*Mr Han Fook Kwang*) Certainly, yes. The limit obviously depends on the infrastructure.

114. Therefore, you cannot put a number on the limit because you do not know how the infrastructure is going to expand. On that question, what is your view on land usage for land transportation as well as resource allocation for land transportation? Are you in favour of the Government allocating more resources, both land as well as financial resources, to expand the road infrastructure—more highways, more two-tier highways and so forth—in view of your concern about the aspirations of the young? - (*Mr Han Fook Kwang*) I think it is difficult to answer that question broadly and conceptually. It has to depend to a large extent on the particular situation. If you build more highways, what is the expense and what are the trade-offs?

115. No. Let me put the question in another way. Do you agree that the Government should stop building highways? These are all the highways that we are going to have. Once the CTE is

*Chairman (cont.)*

completed, should we stop there? - (*Mr Han Fook Kwang*) I think it is difficult to make that sort of policy statement and you have to live with it.

116. You are not making a policy statement. You are expressing your view. Do you think we should stop there? - (*Mr Han Fook Kwang*) No. I do not think so.

117. You think we should continue expanding? - (*Mr Han Fook Kwang*) I think transport is a very dynamic thing. If a new housing estate shoots up somewhere, you have to provide the transportation links. In fact, if land is scarce in Singapore, you can argue that the roads and the highways have enabled the Government to make use of land in outlying areas to a greater extent than it could have done so without the expressways. The decentralisation of the population has been made possible by your highways and indeed by your MRT. Tampines and Pasir Ris are no longer as inaccessible as they were 10-15 years ago. Although highways and roads use up land, to a large extent, they also enable land to be better utilised. In fact, this has also been the experience in other countries. The suburbanisation of the city has been accelerated because of the construction of the highways.

*Dr Wang Kai Yuen*

118. Mr Han, in your submission, and also in your presentation this morning, you placed a lot of emphasis on usage measures. Would you tell us in your own opinion what is the effective number of years that Government can pursue these

measures in controlling car usage and congestion on our roads before that measure becomes ineffective in the sense that, as Dr Augustine Tan has mentioned, ultimately it does not matter whether it is usage or ownership, the number of cars on the road will reach its maximum limit. Is it 5 years, 7 years, 10 years or 15 years? - (*Mr Han Fook Kwang*) I would not say that there is a time period in which usage measures lose the effectiveness. It all depends on how effective you want them to be. In fact, after a certain point, usage measures also become ownership restraint measures.

119. Precisely. Can you tell us, in your mind, that period of time that we can actually go out and pursue the usage measures and keep on emphasising on usage, rather than ownership before it becomes the same thing. You have agreed with me that up to a point it does not matter whether it is usage control or ownership control, you are controlling? - (*Mr Han Fook Kwang*) That is not my point. What I am saying is that when you increase usage restraints, you will reach a point where it will also have an ownership deterrent but that does not mean that it becomes just like an ownership restraint. It is entirely different. It does not increase the value of your vehicle. If you had used ownership measures to achieve the same deterrent effect, the consequences would have been entirely different.

120. Do not get me wrong. I am not referring to the economic impact on ownership. I am just saying the number of cars the whole system can accommodate will ultimately be the same whether it is

usage or ownership measures? - (*Mr Han Fook Kwang*) The number will be different.

121. Will be different? - (*Mr Han Fook Kwang*) Yes, because if you have effective usage measures, people can own cars but they may not want to drive. So the total car population that you can support will certainly be much higher than if you had used wholly or largely ownership restraints. So the numbers will be different. The punitive effect may be the same in the sense that I may have to pay, let us say, \$3,000 more, whether it is by way of repaying the bank loan or paying for parking charges. But the effects are entirely different.

122. Mr Han, I think you are highly theoretical. There must be a point where, regardless of what kind of usage restraints you want to impose, a certain number of people will take their cars on the road. Right? - (*Mr Han Fook*

*Kwang*) I agree that there is a definite limit to the number of cars that the roads can accommodate. What I am saying is that that number is a dynamic number. It depends on the severity of the usage restraints. It depends on the number of new highways you want to build. It depends on a whole series of factors.

*Dr Augustine Tan*

123. We already have built our major expressways and roadways. There is hardly any land left to build any more. We must work within the constraints? - (*Mr Han Fook Kwang*) Yes, I agree, stop building. But what I am saying is that you can achieve as free-flowing a traffic as you possibly can with usage restraints as with ownership restraints with that set of highways or roads or whatever.

124. *Chairman*] All right. Thank you very much, Mr Han, for your testimony.

*(The witness withdrew.)*

Paper 31 - The following representatives from the Singapore Democratic Party were examined:

Mr Jimmy Tan Tiang Hoe, Assistant Secretary-General

Mr Ashleigh Seow, Member, CEC

*Chairman*

125. Mr Tan and Mr Seow, for the record, could you please state your names, addresses, organisational affiliations, occupations and citizenship? — *(Mr Jimmy Tan Tiang Hoe)* My name is Jimmy Tan Tiang Hoe. I am the Assistant Secretary-General of the Singapore Democratic Party. I am 34 years old. I live at Blk 1, Jalan Jintan #11-07, Singapore 0922. I am a financial futures trader with SIMEX. *(Mr Ashleigh Seow)* My name is Ashleigh Seow. I am a Central Executive Committee member of the SDP. I reside at Blk 5, Fatter Road #18-56. I am a Singapore citizen.

126. Thank you. In your submission, you described yourselves as being neutral. In that sense, you are different from all the other submissions we have received. By implication, you are saying that you have no personal interest in land transportation. In your words, "unlike car owners and commercial interests we have no axe to grind. Even the Ministry [the Ministry of Communications and Information] which prides itself on taking a disinterested attitude has policies to defend." Are you saying that while the Ministry has policies to defend, it is not neutral? You, on the other hand, when you have policies that you want to attack, you are neutral? — *(Mr Jimmy Tan Tiang Hoe)* Sir, what I meant was that as far as I am aware, the SDP has never taken a

major position on land transport. Therefore, in that sense, we are neutral.

127. Do you not have a position now? — *(Mr Jimmy Tan Tiang Hoe)* We have a position.

128. Therefore, your neutrality ceased when you took a position? — *(Mr Jimmy Tan Tiang Hoe)* One can have prejudices but one can still be neutral.

129. You are neutral but prejudiced? — *(Mr Jimmy Tan Tiang Hoe)* Quite right. Thank you.

130. I do not know what that means? — *(Mr Ashleigh Seow)* I think Mr Tan is saying that the SDP does not have a sectional interest like, for example, the Automobile Association or various commercial groups and it strives to achieve a position of neutrality on this issue.

131. You also say you have no commercial or personal interests. Does either one of you own a car? — *(Mr Ashleigh Seow)* In that sense, obviously we do have a personal interest.

132. If you own a car, do you also make use of public transportation sometimes, like the MRT? — *(Mr Jimmy Tan Tiang Hoe)* I frequently make use of public transportation.

133. If you make use of public transportation and you also own a car, how could you possibly not have a personal interest in land transportation? — *(Mr*

*Jimmy Tan Tiang Hoe*) As I have said, Sir, we have our biases, but we can take a neutral attitude.

134. Now that we have established that you are not neutral like everyone else, perhaps we can proceed with the substance of your arguments. The first question I would like to ask is this. You accept the assumption of the Ministry that no significant expansion of our road system is possible. In other words, you agree that we should not expand our road system. And you go on to say that Singapore must make the best use of its existing roads for the next 20 years. At the same time, you want ARF and road taxes to be frozen for another six years and you are willing to see the car population increase without further restraint for the next six years. You think it will reach 350,000 in six years - ? - (*Mr Jimmy Tan Tiang Hoe*) Sir, may I correct this?

135. Sorry, let me finish. At which point you agree with the Ministry that we will have a severe congestion problem, that is grid lock. In this assumption, you have estimated that the growth rate will only be 3.5% as against the 6% or 7% we have seen in the last year or so. Could you elaborate on these fairly strong points which you have made? - (*Mr Jimmy Tan Tiang Hoe*) Certainly, my pleasure. First of all, I would like to correct the statement that you made. In the report, it states that we are likely to reach that theoretical figure of 350,000, at growth rate of 3.5% round about the year 2,000, not 1995. 1995 is just a review period. As far as I am aware, there is no one in Singapore with a substantive econometric model to predict at what point Singapore roads will seize up. But working with the

Ministry's figure, presumably there must be some substance to their calculation, it is my contention that based on my estimate of 3½% which is a rule of thumb, we will not reach that critical point till the year 2000. My rule of thumb of 3½% was based on the long-term growth rate of commercial vehicles which is about 4%, long-term growth of productivity is about 4%, the long-term growth in GDP per capita income is about 4-5%.

*Encik Yatiman Yusof*

136. In your opening statement, you said and I quote from page 1:

'Road capacity is finite but the growth of the car population will slow down. [Note the phrase, "slow down".] The car population may reach the critical level in another 10 years.'

Compare this to your projection of the annual growth rate for the economy. But what is missing there is the people's aspiration to own cars. How do you reconcile between the increasing aspiration to own cars and the statement that the growth of car ownership will slow down? - (*Mr Jimmy Tan Tiang Hoe*) Sir, people aspire to own cars but the ability to purchase cars depends on their income. As their income rises, they can purchase more cars at a proportionate rate. So that is why I mentioned that the 3½% is in my estimate all right, slightly less than the long-term growth in our per capita income. Have I answered the question?

137. Except that your assumption that the critical point will be crossed in the coming 10 years; meanwhile, hold it. Is that what you are suggesting? - (*Mr Jimmy Tan Tiang Hoe*) I think, Sir, in my executive summary and my conclusion, I



*Mr Jimmy Tan Tiang Hoe (cont.)*

have stated very strongly and clearly that there are a number of long-term and short-term measures. We have time to implement long-term measures because in my estimate we will not reach any kind of critical grid lock till the year 2000. There are many necessary short-term measures to control congestion in local areas which is what the problem is. In the long-term, we cannot afford to abandon the use of ARF and other things like that to help keep the car growth in check.

*Encik Yatiman Yusof (cont.)*

138. In other words, you agree that existing short-term measures must slowly be increased to hold measures in car ownership? - *(Mr Jimmy Tan Tiang Hoe)* I think it would be natural for various charges to rise in line with our growing income. It must be so. Otherwise the cost of cars would be relatively cheaper over time and the growth of the car population would surge.

139. So you concede that the existing measures are necessary and ought to be continued, if not increased? - *(Mr Jimmy Tan Tiang Hoe)* Which specific measure, Sir?

140. ALS, evening ALS, PARF, ARF, car park, except for the reduction to \$25 car park fee for the outlying areas. Do you agree that those measures should continue? - *(Mr Jimmy Tan Tiang Hoe)* Let me address three or four of these measures. I think that we should not scrap the PARF or ARF because it serves a function. It is costly to the consumer. I think the increase in CBD parking charges is already working. From my

personal observation, there appears to be a fall in business at some of the public car parks, ie, season parking. To some degree, although it is painful and not terribly economical, it appears to be working. Let me quote statistics, for example, from Hong Kong. As you know, there is a tunnel that goes under the straits joining Kowloon and Hong Kong island. There is a charge or a levy for using the tunnel. Recently, they doubled the fare for using the tunnel, and there was a 10% fall in traffic. Well, that took care of the congestion. But obviously, it was not very economical since the charges have to be doubled to have a 10% effect.

*Chairman*

141. Mr Tan, being in Simex, you are familiar with the movement of currencies over the last five years. Would you say that in the last three or four years, the sharp appreciation of the Yen, and to some extent the Deutschmark, has increased the cost of car purchases or car ownership?. In addition to ARF being there, there is also the currency factor. And together, the appreciation of currency and the ARF in place, has helped to moderate car growth to the levels that we have seen in the last few years, which is still quite high, but it has helped to moderate. Do you expect in the next four or five years to see the same kind of currency appreciation that would help to moderate car growth by virtue of making the cost of ownership higher? And if not, do you not see a need to adjust the ARF if you want to achieve your 3.5% growth rate that you have assumed? - *(Mr Jimmy Tan Tiang Hoe)* Granted, Sir. I would look at the final car price to the

consumer rather than just the ARF portion of it. And of course you are quite right. Substantial changes in the foreign exchange rates do affect the final car prices. It is my personal feeling that the US dollar, to which the Singapore dollar appears to be partially pegged, will continue to depreciate against the stronger currencies like the Deutschemark and the Yen. And we will continue to see some rise in the cost of our main car importers.

142. But not to the same extent that we have seen in past years, not nearly to the same extent. I mean it was quite sharp in the last few years? - (*Mr Jimmy Tan Tiang Hoe*) I certainly hope not.

143. Without that kind of sharp appreciation in currency, are you really serious that we can get only 3.5% growth rate without any car price increases? - (*Mr Jimmy Tan Tiang Hoe*) I base my estimate on the growth of per capita income. I believe that car prices will not go down. And because of technological innovation, the inclusion of gimmicks and improvements in the build quality, the price of cars will rise. I am inclined to wait till 1995, for example, to have a review to see whether car prices have risen in line with per capita income.

144. You are saying that car prices will rise because per capita income rises? - (*Mr Jimmy Tan Tiang Hoe*) No. What I said was this. I am confident that car prices will rise because the Yen and the Deutschemark are likely to appreciate against the US dollar, to which we are partially pegged. In addition, car prices will rise because car manufacturers are loading their cars with more extras and they are improving the build quality and

they are putting in more gimmicks. Inevitably, car prices will rise.

145. Yes. But there are also cheaper alternatives like the Hyundai that have come on to the market which have fewer gimmicks and which are very price competitive. Would you not agree? If somebody wanted to own a car and wanted only to pay at a lower range, there are alternatives, like the Hyundai? - (*Mr Jimmy Tan Tiang Hoe*) As a matter of fact, the cheapest cars available are from the Eastern bloc. Without mentioning names, they are available for roughly half the PARF price of Japanese cars and they are still substantially cheaper than Korean cars.

146. Therefore, this throws your argument into doubt. In the first place, there are cheap alternatives. In the second place, the income levels are rising, therefore prices of cars are relatively getting cheaper. So those two factors go against slow growth. Thirdly, I think you concede that the very sharp appreciation of the Yen, I think close to 50% that we saw in the last three or four years against the Singapore dollar, is not likely to happen in the next three or four years. I mean not in that order of magnitude. Do you agree? - (*Mr Jimmy Tan Tiang Hoe*) I understand your point.

147. It is not likely. Therefore, if you take those three factors into account, we have tremendous reasons to expect that the affordability of the cars would go up very substantially. In view of that, how are we going to achieve 3.5% growth rate that you estimate? - (*Mr Jimmy Tan Tiang Hoe*) Can I answer that? I understand the point you are trying to reach. Let me just add one comment. Although

*Mr Jimmy Tan Tiang Hoe (cont.)*

the Eastern bloc cars are cheap, they are not popular. The reason is that the depreciation, second-hand value, is quite tremendous simply because the local market has not accepted it yet. The acceptance of cheaper, shall we say second-line cars, will only come slowly. It is true that this represents in the long-term a kind of loophole. But I still believe that the price of the imports will rise, whether they are second rank or first rank. Over time, the price of owning a car, whether you are willing to go for a Japanese car or whether you are willing to go down market, will rise.

*Chairman (cont.)*

148. It seems like it is an article of faith. Sure, there will be rises but incomes are also rising. But for the three reasons that I gave you, all of which militate against the fast rising car prices? - (*Mr Jimmy Tan Tiang Hoe*) I think we should not get fixated on the numbers because these are just rules of thumb. It is just that, as you say, -

149. I am sorry. But the numbers are critical here. Whether it is 3% growth or 8% growth makes a lot of difference to the congestion problem? - (*Mr Jimmy Tan Tiang Hoe*) Quite, Sir. I think we should not get too hung up on numbers because, as we all know, any prediction will change over time as various factors change. Rather it is my main contention in the report that there is no problem for a number of years, perhaps it is 5, perhaps it is 10, perhaps it is 15, and that we should get down to tackling the road problem as well as the long-term problem.

150. Yes. We are aware that is your contention. But, as I said, the economic arguments do not bear it out. As I said, those three points that I raised, you have not really met those points in so far as car prices are concerned? - (*Mr Jimmy Tan Tiang Hoe*) Sir, let me ask you, what do you think is the long-term growth of the car population?

151. I am sorry. I am asking the question? - (*Mr Jimmy Tan Tiang Hoe*) I believe it is 3½%. Based on my best estimate and on my analysis, I would suggest that it would grow below the long-term growth.

*Chairman*] It appears to me that is an article of faith based on somewhat dubious economic reasoning. But never mind, that is your view.

*Dr Augustine Tan*

152. Mr Chairman, may I just direct some questions to Mr Tan? I read the paper rather carefully, trying to isolate the political from the economic. It is a very difficult task. There are many inconsistencies. In page 3, you claim that public morale has been poor. And at the end of page 3, you said and I quote:

'In the last ten years, the reorganization of the public bus services and the building of the MRT has greatly improved the quality and coverage of public transport.'

How can public morale be poor if the Government has done so much? And on page 12, you are relying upon the congestion problem to be self-correction. The last paragraph states, and I quote:

'It is difficult to get Singaporeans to switch to public transport because the roads are so good it is still more convenient to travel by car.'

Yes, the Government has made many good roads and spent \$5 billion on the MRT, an outright subsidy, and that is why things are moving. Transportation can move smoothly. But do we wait until congestion problems get so huge that the problems become self-correcting? Can any Government which is responsible wait for such a thing to occur? I recognise the SDP is prepared to do this but not the PAP Government? - *(Mr Jimmy Tan Tiang Hoe)* You are stating our position. But in any case, can we tackle it point by point? *(Mr Ashleigh Seow)* May I answer this question? Mr Tan's reference to public morale being poor is referring, I think, to car owners rather than the general public.

153. But the word "public" connotes the general public to me? - *(Mr Ashleigh Seow)* Yes, I understand that you may have a -

154. I do not belong to your party. So I cannot understand your language? - *(Mr Ashleigh Seow)* The second part that you mentioned, about the improvement and the investment in the road transport infrastructure, obviously relates only to the non-car users because, if you read on, the next sentence says: "Non-car owners have greatly benefitted."

155. But is that not the point? They are the great majority in Singapore. Should we not be concerned about the people who cannot own cars in Singapore, that they can get to work on time, that there be no traffic jams? - *(Mr Ashleigh Seow)* Undoubtedly.

156. Or is the SDP only concerned with car owners, the 250,000 in Singapore? - *(Mr Ashleigh Seow)* Not at all.

157. The Government is concerned with 2.6 million people in Singapore, not just 250,000? - *(Mr Ashleigh Seow)* It may assist this Committee if I briefly state the Party's position. The SDP realises that a small country like Singapore with limited land area cannot continue to have more and more cars and build more and more roads. There obviously must be both ownership controls and usage curbs. What we are concerned with is that the implementation of these usage curbs and ownership controls be done in as equitable a manner as possible. Certainly we care a lot for the people who have to rely on public transport. If you look at the end of this study, you will see that Mr Tan has proposed a number of express bus routes specifically catering to those people who cannot afford cars.

158. What do you mean by "equitable"? - *(Mr Ashleigh Seow)*

From an economic point of view, it is simply the monetary impact.

159. That everybody should have a car? - *(Mr Ashleigh Seow)* No. I think we all appreciate that it is not possible for everybody to own a car.

160. Okay. So a lot of people will not own cars even under your proposal? - *(Mr Ashleigh Seow)* We are not proposing that people own more cars.

161. What do you mean by "equity"? - *(Mr Ashleigh Seow)* What I mean by "equity" is that the marginal road user, the less affluent person, who owns a car and uses it in a more limited and restricted manner, who does not drive downtown to work, is not squeezed out as a result of increases in ownership costs or increases in usage controls.

*Dr Augustine Tan (cont.)*

162. But if he already owns a car, how can increased ownership cost affect him? - (*Mr Ashleigh Seow*) When he purchases a car again.

163. But you said he already owns a car? - (*Mr Jimmy Tan Tiang Hoe*) What if you raise the road tax?

164. You are recommending usage, which is going to hurt these people? - (*Mr Ashleigh Seow*) Dr Tan, are you suggesting that we draw a line now and increase ownership costs and ownership tax, and those people who have not got a car now are going to be left out? Is that what you are saying?

165. I am not making any suggestions? - (*Mr Ashleigh Seow*) Because that is what it seems to me.

166. I am examining you on your proposals. You seem to be rather cavalier so far as the ownership restraints are concerned. You believe that the problem is somewhere down the road, maybe in 10 years' time or 20 years' time, and therefore there is nothing that needs to be done on that score. I take issue with that. And you make the point that congestion will drive people to be self-correcting in terms of usage. I take issue with that. You mention the equity problem, I do not see any? - (*Mr Jimmy Tan Tiang Hoe*) Dr Tan, I think we are in fact considerably in disagreement and the discussion is becoming a little bit confused. Now let us go back to basics.

167. No, no. Who is confusing who now? - (*Mr Jimmy Tan Tiang Hoe*) You are confusing me.

168. No. As I read your paper, I am trying to make sense of it? - (*Mr Jimmy Tan Tiang Hoe*) I apologize if you have difficulty understanding it.

169. I accept your apology? - (*Mr Jimmy Tan Tiang Hoe*) We tried to make it as simple as possible, simply because we wanted to have a straight and clear look at the land transport policy. We have mentioned quite a number of things. We have talked about the effects of zoning policy on congestion. We have talked about the lack of equity, for example, in the old Government emphasis on control of car ownership.

170. But you have not defined "equity". I am trying to understand you, Mr Tan? - (*Mr Jimmy Tan Tiang Hoe*) Excuse me, can I continue, please? I was about to go into that. Can I finish?

171. Please? - (*Mr Jimmy Tan Tiang Hoe*) We have talked in the paper which you read carefully about the different effects on urban and rural residents. It is somewhere in that paper.

172. May I know how many people live in the rural areas of Singapore? Or are there any rural areas in Singapore at all? - (*Mr Jimmy Tan Tiang Hoe*) We consider Woodlands, for example, to be a rural area.

173. I would hardly define Woodlands as rural. It is a very well built area? - (*Mr Jimmy Tan Tiang Hoe*) Excuse me, Dr Tan. Can I finish with my discussion? Then you can have a go at it. We talk about equity and that we state very clearly that car ownership charges are not fair to light users simply because they got squeezed out first. The heavy users tend to hang on longer because the increased

costs are spread over. They use more times than the light users. The rural user, I define those who are living in places, shall we say, relatively far away from the central and southern zones, for example, Tuas and Woodlands. It is these people who need private transport more than those who live in the central area where there is good public transport. If you impose, as the Ministry has done, a heavy car ownership cost, the marginal users in the rural areas are forced out to their great inconvenience. This is not equitable.

174. Have you made a proper survey in order to come to that conclusion? The number 2 question is: How do you distinguish the light from the heavy users of motor vehicles? Have you done a survey to ask motor vehicle owners how heavily or how lightly they use their vehicles? - *(Mr Jimmy Tan Tiang Hoe)* I have done a survey by talking to people. But if you are willing to finance a survey, we will certainly be happy to carry it out for you.

175. No, no. For a political party that is claiming to be responsible, making statements based upon personal observations are grossly inadequate, and create a lot of misconceptions in the public mind? - *(Mr Jimmy Tan Tiang Hoe)* Have you finished, Dr Tan? May I now take the opportunity to rebut you? If, for example, I say the sun looks yellowish, that is a subjective statement. But I think no one would disagree with me.

176. What is yellowish? - *(Mr Jimmy Tan Tiang Hoe)* If I say that the sun looks yellowish, no one would disagree with me.

*Dr Augustine Tan*] That is the problem with you. We are dealing with car problems, down to earth problems, and you talk about the sun.

*Chairman*

177. Dr Tan, I would like to steer this discussion in a slightly different direction at this time. Mr Seow, both you and Mr Tan, repeatedly made the statement that you think it is very unfair to squeeze out the marginal car owner. That sounds very nice and I am sure it wins a great deal of sympathy from those who would like to own cars. But at the same time you say that we should restrict the growth to about 3.5% in order to achieve the kind of targets that you had in mind. In the last one year the growth rate has been 6.9%. In order to get your 3.5%, we have to squeeze out 3.4%. If we do not squeeze out that 3.4%, we do not get your 3.5% growth. At the same time, you say that it is not very nice to squeeze out these people. How can we have both, to have the cake and eat it? - *(Mr Jimmy Tan Tiang Hoe)* Coming back to the numbers, Dr Hong, let me quote from my report. I think it will be useful.

178. Sorry. My point is really a very simple one. You take, if I may call, a populist stand, that it is not good, it is not fair to squeeze out the person who wants to buy a car by usage and by ownership restraints. At the same time, you recognise that to be reasonable you must have 3.5% growth rate. But even with today's restraints, without increasing it, you already have 6.9% growth. You cannot have 3.5% growth without squeezing out the 3.4%. Therefore, by implication, you have advocated squeezing out 3.4%

*Chairman (cont.)*

because the natural growth now is 6.9%. How could you advocate a policy of limiting the growth to 3.5% and at the same time say it is not very nice to squeeze out the 3.4%? - *(Mr Ashleigh Seow)* The SDP is not advocating that we limit the growth to 3.5%. What Mr Tan's study said was that it is likely to grow at 3.5%.

179. Yes, you do. You say that we only have so much roads. You accept the assumption of the Ministry that we should not build any more roads and that we can only take up to 350,000 cars. And for that, you say we can only allow 3.5% growth. That is clearly stated in your paper. But at the same time you are saying that it is not nice to squeeze out marginal road users. You cannot have the cake and eat it? - *(Mr Jimmy Tan Tiang Hoe)* Sir, I think you have got it the other way round. We have looked at the limited road capacity and we have looked at the likely growth rate of the car population. By the way, you have not mentioned the demographic part that we have actually taken a careful look at. It is our feeling that there would likely be a 3.5% growth rate, taking all factors into consideration. This growth rate is below the growth of our per capita income.

180. We can talk about per capita income and so on. But the basic simple fact is, how do you explain to the people the fact that you sympathize with people who are squeezed out? You do not want them to be squeezed out. At the same time, they have to be squeezed out if you want 3.5% growth rate in order not to congest the roads? - *(Mr Jimmy Tan Tiang Hoe)* Like I said, you have got it

the wrong way round. We feel that people need not be squeezed out because there is no need to squeeze them out.

181. Then you will get your 6.9% growth? - *(Mr Jimmy Tan Tiang Hoe)* That is very strange because that is only the current growth rate. We are talking about the long-term growth rate.

182. It is not quite that. Even at 6.9% growth rate, you are squeezing out the 7%. Somebody has to be squeezed out as long as you are limiting the growth rate. What I am saying is, I think we have to be perhaps intellectually honest in dealing with this problem. I think there is a need for both the people and the Government to face the problems fairly and honestly. We cannot take the populist approach and say it is very bad to squeeze out car owners, that it is very bad, inequitable and so forth. That makes good political image. But at the same time you have attempted to be very responsible and I think many parts of your paper have been very well reasoned and very responsible. But I am afraid I have this problem that, on the one hand, you want to take the populist approach and tell everybody that we should let everybody own cars, be equitable and so forth. At the same time, you take a very responsible attitude in parts of your paper to say that we should not have any more roads. We should limit it to 3.5% growth? - *(Mr Ashleigh Seow)* The paper is saying that there is a localised problem in certain areas in Singapore. There is not a general problem of congestion in Singapore. Certainly in the outlying and some of the suburban areas at large times of the day, you have no problem driving around at all. What we are saying is that these localised problems should not be used as

a reason to impose general restraints on ownership or usage curbs that would have the effect of squeezing out those marginal road users, and those people who live in outlying areas who do not commute downtown in their cars, who do not add to the congestion in these localised areas. They should not be made to suffer because of a localised problem. I think you will agree that those people who live and work in the outlying areas are generally the less affluent. There is a Hong Kong study, which my colleague has here, which shows that, generally, the less affluent person does not drive downtown. I presume this is true in Singapore or, to use the jargon, I assume it is true in Singapore as well.

183. So you are saying that they should own cars? - (*Mr Ashleigh Seow*) No, no. What I am saying is this. I am saying that those people who do own cars, who are less affluent and act responsibly as good citizens, who use public transport which is available to travel to and from work, should not be penalised when they use their car in non-congested areas for relaxation or other essential purposes.

184. Are you saying that those who stay in outlying areas will act responsibly only if they do not drive downtown and if they pledge that they would be responsible and they would not drive downtown, they could buy cars at a cheaper price so that they are not squeezed out? - (*Mr Ashleigh Seow*) No. In economic reality, if one accepts this Hong Kong study, the less affluent person is affected by usage measures like the ALS and tends not to use his car to drive to work. In most parts of the world it is the central

business district, howsoever defined, that has the congestion problem. You find that many people use their cars to go on trips, to pick up their kids from school, to go shopping, to go and visit their relatives and things like that. In many cases, if the families are living in the outer suburban areas, they do not materially add to the congestion.

185. This is why in the outer suburban areas MRT lines and buses have been provided? - (*Mr Ashleigh Seow*) Yes, but they are not perfect. I think they are far from perfect actually.

186. Of course, we cannot expect everybody to have the perfect instrument or the perfect vehicle. Some people will enjoy more than others depending on where they live and what income levels they enjoy? - (*Mr Ashleigh Seow*) Yes, that is the case. I think you are perhaps simplifying our case when you say that we do not see a need for increases in ownership controls in the next five years. We are not saying that we do not see the need for the implementation of usage controls within these five years. I believe electronic road pricing is one of the things that this Committee is looking at and you will see that the SDP is in favour.

187. We take note of that. I think when the electronic road pricing comes about, the public will see that it is going to be very costly for those who use the roads. It has to be? - (*Mr Ashleigh Seow*) It will depend on how you price it.

188. If you want it to be effective, it has to be priced right and it is going to be costly? - (*Mr Ashleigh Seow*) It depends on what the objective is.



*Chairman (cont.)*

189. I wonder how your outlying area and less affluent residents will feel when they drive in and pay the high charges of ERP? - *(Mr Ashleigh Seow)* It depends on what is your objective. If you wish to use it as an additional means of gaining revenue or to squeeze people out of the central business district entirely, then it will work.

190. Do you agree that it is a good method of restricting usage rather than as a means of raising revenue? - *(Mr Ashleigh Seow)* It is one of the most equitable methods of pricing road usage.

191. If it is very cheap, could it have any effect? - *(Mr Ashleigh Seow)* I do not think we are talking about a single price throughout the whole island. We are talking about zones. There will have to be a differentiation to a certain extent.

192. Do you agree that it has to be costly enough to affect travel patterns? - *(Mr Ashleigh Seow)* That is what the Area Licensing Scheme does already.

193. Right. If it is costly enough, it is by definition not cheap and therefore some people are going to be squeezed out? - *(Mr Ashleigh Seow)* Yes, but it will then result —

194. And it will likely to be the less affluent ones who get squeezed out. Do you agree? - *(Mr Ashleigh Seow)* Not necessarily. They may find, as the Hong Kong study shows, that they will not drive in to work and that they will plan their trips into the central business area.

*Encik Yatiman Yusof*

195. Can I ask you this question? Are

you basing your conclusion on the Hong Kong study? - *(Mr Ashleigh Seow)* No, I am not basing on it.

196. Hong Kong island is connected to Kowloon through the tunnel and imposition of charges through the tunnel had resulted in the decline of traffic flow. That is the basis of your conclusion. Take that into Singapore's situation. From Woodlands down to the CBD, given the distance, given the highway and given the MRT, it would take not more than half an hour to reach. Do you agree that there is a difference in terms of scale, in terms of geographical reality between Hong Kong in which you based your study and Singapore where the extent of fluidity is always there? You can approach the CBD from 12-13 roads, from Alexandra right to Changi. Secondly, you assume that there is such a thing as outlying areas or village areas in Singapore compared to Kowloon and Hong Kong where there is no such clear demarcation. The expansion of satellite towns has turned the most rural area in Singapore, ie, Chua Chu Kang, into one of the highest density population area comparable in this region. How do you reconcile the basis of that study? - *(Mr Ashleigh Seow)* There is nothing to reconcile. That Hong Kong study simply bears out the assumption which I think should hold true in most parts of the world, which is that the less affluent road user will not use his car to drive downtown if there are usage controls. And I think that will hold true in New York or in Singapore. Because it is more expensive for him. What we are saying here is that we think this is fine. This is a good thing. People will plan their trips. They will use alternative means to get to work when it is available.

What we are saying is, for God's sake, for those people who have cars or those people who are saving up to buy cars, do not close the door on them if they do not add to the congestion. What is the point of forcing a number of people off the road so that those who are affluent enough to drive into the central business district as often as they like can do so? To keep the roads free for Porsches?

197. In other words, you are saying that it is all right to allow people to come in from the outlying areas to buy new cars because they do not drive to the city and therefore there would not be congestion. Are you aware that, given the configuration of Singapore, the size of Singapore and the availability of the Pan-Island Expressway, Central Expressway, Bukit Timah Expressway, the approach to town is made so easy that there would be less disincentives for them not to drive to town. Therefore, the comparison between Singapore and New York, Singapore and Hong Kong, is not possible. They will simply drive to town and cause congestion to our small island republic? - *(Mr Jimmy Tan Tiang Hoe)* I think you have a good point there. Gentlemen, perhaps we have spent too much time on our differences of opinion.

198. We did not. We are looking for the logic. We work along the same logic but somehow our figure does not tally. Our assumption differs? - *(Mr Jimmy Tan Tiang Hoe)* Quite, Sir. All of us are here in a constructive role to try to put together a land transport policy that is acceptable to the public. I am concerned that whenever the Government imposes any kind of measure against the public,

the people think that it is unnecessary and probably a blotch-up job. I think we need a land transport policy that is reached on a consensual basis that people can have confidence in. I think this Select Committee hearing is a direction in the right way.

*Chairman*

199. Notwithstanding what you say, Mr Tan, the fact is that most of your suggestions are in line with what the Government has already proposed and implemented. You agree with ERP. You agree that there is a limit on car ownership. You agree on a slow rate of growth. What you have merely echoed, it seems to me, is some unhappiness in the public over the fact that some people who want to own cars cannot afford it. As you said, if we are to play a constructive role, we must recognise the fact that if we want to achieve these targets which you agree upon, and if we are to use these methods which you also agree upon, there have to be some people who are going to be left out. Because there is a limit and when there are people who are left out there is going to be some unhappiness. We would hope that in playing a constructive role, we would encourage these people who are unhappy to understand the problem and make the best use of the other very good transport amenities that this Government has provided - MRT, buses and so forth. Perhaps on that note, we should end your testimony, as time is running a little short. Thank you very much? - *(Mr Jimmy Tan Tiang Hoe)* Thank you, Sir.

*(The witnesses withdrew.)*

Paper 63 - The following representatives of the Automobile Association of Singapore were examined:

Mr Ng Ser Miang, President

Mr Gerard Ee, Vice-President

Mr Humphrey Chua, Committee Member

*Chairman*

200. Mr Ng, Mr Ee and Mr Chua, could you for the record, state your names, occupations, addresses, organisations and citizenship? - (*Mr Ng Ser Miang*) My name is Ng Ser Miang. I live at 237 Arcadia Road #04-01, and I am the President of the Singapore Automobile Association. (*Mr Gerard Ee*) My name is Gerard Ee. I live at No. 60 Dunbar Walk. I am the Vice-President of the Automobile Association of Singapore. (*Mr Humphrey Chua*) My name is Humphrey Chua. I live at No. 2 Ridgewood Close, Singapore 1027, and I am on the general committee.

*Mr Lim Boon Heng*

201. In your submission, you mentioned in paragraph 5 that the current ARF and PARF system, though effective in controlling the car population, has now reached a stage where it has got diminishing returns. Are you suggesting then by this conclusion that we should scrap ARF and PARF? Or should we raise the two charges? - (*Mr Ng Ser Miang*) We are not saying that you should raise ARF. We are saying that whatever increase that you are going to have is going to be more painful and it is going to be very unacceptable to motorists.

However, we felt that there is a better way of doing it. Instead of concentrating on curbing ownership, we should really be looking at controlling usage that contributes to congestion.

202. Before going to the question of road usage, you also mentioned about the quota system and you dismissed that as not an option because it would distort market forces. Can you elaborate on that? - (*Mr Ng Ser Miang*) We are not sure of what quota system or tender system that would be proposed. However, we feel that this would put a cap on the number of cars. And if a person who is in desperate need to own a car is not successful in winning his bid, he will have to look around and will probably be prepared to pay more for it by whatever means.

203. You are suggesting that another market will develop? - (*Mr Ng Ser Miang*) That is right.

204. The quota system is not a practical solution? - (*Mr Ng Ser Miang*) That is right.

205. Your suggestion then is that we should control car usage. Can you elaborate on the effective measures you think we could impose to control car usage? - (*Mr Ng Ser Miang*) We believe that the

problem we are looking at is traffic congestion on roads. Congestion occurs when vehicles using the same stretch of road at the same time in the same direction exceeds the road capacity. We feel that to be effective, you have to look at controlling the usage of roads. And through that, I think you can use pricing system or what we call congestion pricing. This congestion pricing could be flexible enough to ensure that the same stretch of road or whatever congested roads will be used to its maximum capacity without causing undue congestion.

206. In order for usage measures to be effective, you would have to charge quite substantially. Would you not agree with that? - (*Mr Ng Ser Miang*) Yes. I think we have no illusion about the cost of congestion pricing. However, we feel that between increasing the cost of car ownership and usage, it is preferable that we go on a usage system, in which case, car owners who use roads that do not contribute to congestion will not be penalized. It is a principle of you having to pay for causing congestion.

207. Have you any idea as to the magnitude of fees that ought to be charged in order for usage measures to be effective? - (*Mr Ng Ser Miang*) I think we can make reference to the CBD now. You are charging \$3 per entry into CBD and it has effectively controlled the number of cars entering CBD. If you apply the same principle to congested areas, probably that could be a very basic guide to what congestion pricing may be in the future.

*Dr Wang Kai Yuen*

208. In your view, congestion pricing

is a good thing. Among your AA members, there must be individuals who commute frequently into the city for whatever jobs they have to carry out. Would congestion pricing impact on their livelihood? And would you be able to convince them that, yes, this is a good thing for Singapore? - (*Mr Ng Ser Miang*) I think the reason why a person owns a car is that it is faster, more convenient and more comfortable than public transport. And members accept the fact that if the roads are really congested, it will become even less convenient or slower than to travel by public transport. If they have to pay a price in order to ensure that the roads will not be congested, I believe they are quite prepared to pay this price. It is the same case like what we have in the CBD now.

209. There is a difference. Because now once you buy a coupon you can enter the CBD repeatedly without paying an additional charge. But with congestion pricing and with implementation of the ERP, it could happen that every time you enter into that particular area, you have to repeatedly pay the same price. In other words, as you said, going into the CBD now is \$3 per entry. In future, if a person repeatedly enters into the CBD in the course of his business, that fee would be multiplied by the number of trips he makes? - (*Mr Ng Ser Miang*) The congestion pricing that we are suggesting should be flexible and it applies to different areas. If there are different levels of congestion, then you have different pricing. And where there is no congestion, then theoretically there should be no congestion price.

210. I agree. My point is that if you have to enter the same stretch of road

*Dr Wang Kai Yuen (cont.)*

five times a day, he or she would have to pay the same amount five times. Do you agree? - (*Mr Ng Ser Miang*) That would be his choice really. If the congestion price has been fixed, during the five times that he is entering that same stretch of road, then in order to keep the road clear of congestion and he will know about it, he should be ready to pay for it if he chooses to make use of the same stretch of road.

211. We are in agreement that that will be the cost the motorist would be prepared to bear? - (*Mr Ng Ser Miang*) Yes. But I think it is important to emphasize that the pricing should be done in such a way that if there is no congestion on that stretch of road, then there should not be a congestion price attached to it.

212. Allow me to take one step backward. Because in page 1 of your submission you have stated, "The Government must accept the fact that car ownership is a natural aspiration of its people." Is it fair to say that in your own perception or in the perception of your members that Government does not accept this fact? - (*Mr Ng Ser Miang*) We are not saying that the Government does not accept this fact. What we are saying is that the Government should be aware of this fact. We feel that in order for people to achieve this aspiration, car prices should not be unduly increased with additional ARF.

213. I can assure you that as a person and also as a Member of Parliament, I am fully aware that car ownership for people who are progressing in their career is a natural aspiration. And I think the whole

hearing is to arrive at a compromise as to how to control the car population versus the aspiration of our people. Is that not right? - (*Mr Ng Ser Miang*) Yes.

*Dr Augustine Tan*

214. Everybody seems to put a lot of faith in usage policies, usage cost, to get more optimal allocation on the roads. But is it not cruel to let everybody who wants a car to buy one rather cheaply and then force him via high usage cost to keep his car at home much of the time? What usage policies do potentially are two-fold. One, there is a diversion aspect. Diversion in terms of the physical diversion from one set of roads to another. That is what you can do. Or diversion in terms of time. Instead of going at 4 o'clock, you go at 5 o'clock to avoid the congestion. But the other element which is hoped for is substitution in terms of mode of transportation. That, I believe, cannot be achieved because once a person owns a car, it will take very high usage cost in order for him to go by MRT or by bus to work. Everybody has in mind the model that exists in the developed countries or in larger countries where you have city areas and you have got large rural hinterlands, suburban areas. Then that is fine. If you live in those countries, then you commute to work by public transport, you use your own car on weekends in the suburban areas, country side, for enjoyment. But we do not have that luxury in Singapore. It is a city state. There may still be areas which are outlying, which are still relatively free of traffic. But you cannot keep on adding cars on the road without overcrowding at some stage. And you are recommending in your paragraph 8 that we let market

forces determine the number of cars on the road. To me, it is quite, if I may say so, irresponsible, because you get to a stage where you are bumper-to-bumper? - (*Mr Ng Ser Miang*) I think the basic question really is, we are trying to make sure that the roads are not over-congested. If the roads are clear and free, then there is really no need to start controlling the number of cars or even curb usage. I think the Government has been successful in pursuing the housing policy. And once Singaporeans have their own homes, what do they aspire next? The next thing they look for will be a car. Although we are not like other countries where we have a lot of places to drive around during weekends, I think as long as these motorists do not crowd around in congested roads, then they should really be free to keep their cars if they can afford to and drive around to uncongested areas like, for example, if you live in Sembawang and on weekends you want to drive to East Coast. You have a car, the cost is low. However, if you want to drive a car to the CBD during week days, during office hours, then you pay for it.

215. Is there not a physical limit, no matter what usage measures we adopt? There is a physical limit to the number of cars that we can put on the roads without there being free areas anywhere in Singapore to drive around for pleasure? - (*Mr Ng Ser Miang*) Yes, we admit in our submission that there must be a maximum number. But we are also saying that this number -

216. There has to be a day of reckoning, whether it be five years down the road, 10 years down the road, 20 years

down the road, is it not? - (*Mr Ng Ser Miang*) Yes. But I think if congestion pricing is effective enough in controlling congestion in congested areas, perhaps, this pricing would also in a way discourage people who only use cars for business or for work. And if they cannot afford it, they will not be induced to buy cars because of this usage pricing.

217. But are you prepared to allow the kind of congestion we see in Bangkok, in London, in the major cities of the world where cars are virtually bumper-to-bumper? Is that what you have in mind, Mr Ng? - (*Mr Ng Ser Miang*) No, that is not what we have in mind. That is why we say that the policy will have to balance between the aspiration to own cars as well as to make sure that there is no congestion.

218. But is that not what we are trying now? - (*Mr Ng Ser Miang*) Yes, that is what we are trying to do now.

*Mr Chiam See Tong*

219. Mr Ng, part of your paper seems to dwell on this point - aspirations of car owners balanced against the need to avoid unacceptable level of congestion. I think we should try to get an understanding of what traffic congestion really is. It has been defined by an engineer in a paper who says that traffic volumes exceed the design capacities of roads. I think in your paper you have also attempted to define what congestion is, "vehicles using the same stretch of road in the same direction at the same time matches the capacity of that road". If it does not match, then there is congestion. And also I think the Ministry of Communications and Information has defined congestion

*Mr Chiam See Tong (cont.)*

as traffic having to wait for three or more cycles. That is not acceptable, or traffic flow may be slowed down to a certain speed. What is your definition? Or at least let us have a concrete idea on this point? - (*Mr Ng Ser Miang*) We believe that what is called an acceptable level of congestion means different things to different people.

220. Let us have some substantive definition or ideas on this point of traffic congestion. We are talking very subjectively so far? - (*Mr Ng Ser Miang*) That is right. And that is what we believe and it is part of our submission that work has to be started on defining an acceptable level of congestion by relevant Government departments with feedback from the public. And so we will all arrive at a concurrence on what is an acceptable level of congestion.

221. All right. Let us have it? - (*Mr Ng Ser Miang*) That is what we are proposing that government departments should start to work on it and get feedback from the public.

222. I think if we get some concrete ideas, it would really assist the Committee. So far everybody is talking about it subjectively and nobody really knows what it is. Can we have some ideas on this? Perhaps precedents from other countries? - (*Mr Ng Ser Miang*) I do not think we can really make reference to other countries.

223. Of course, if cars are travelling from bumper-to-bumper and cannot move, you know it is a congestion. Is it not? - (*Mr Ng Ser Miang*) Right.

224. That is an extreme end. And if cars are free flowing, that is not congestion. In between the two, what is actually an acceptable level of congestion then? - (*Mr Ng Ser Miang*) As you have said, it is clear cut of what is congestion-free and what is the extreme. But what is in between is a grey area and it is something that has to be defined and has to be worked on and then it has to gain acceptance.

225. What is the acceptable level of congestion? 27 km per hour on the road or less, or what? - (*Mr Ng Ser Miang*) I do not think you can really be so simplistic about this. Different levels of congestion and what is acceptable also depends on areas. For example, in Orchard Road, people expect the traffic to be slower, and if you are stuck there for three lights, four lights, it may be acceptable. Whereas if, say, you live in Katong, I think even if you have to wait for three lights, it is unacceptable. So it is something that has to be worked on. It has to be defined and it has to gain public acceptance.

*Mr Chiam See Tong*] A congestion is a congestion, is it not, whether it is in Orchard Road or whether it is in Katong.

*The Chairman*] Mr Chiam, you have belaboured that point. You would like a number and Mr Ng is unable to come up with that number.

*Encik Yatiman Yusof*

226. I am in fact very interested to hear this concept of congestion pricing system. My main concern is that it seems this concept appears to be reactive rather than proactive in nature. You wait until

certain stretches of the road are congested, then you identify it as belonging to a different pricing system to discourage people from driving through that stretch of road. Is there a way where we can anticipate? Instead of saying congestion pricing system, shall we say anticipated congested area, and then impose a price? So we appear to be more proactive than reactive. Otherwise our response may be a bit too slow. The entire area may be congested before we introduce the system, especially when the system is discriminatory in terms of location and in nature? - (*Mr Ng Ser Miang*) Yes. I think with what we have implemented in Singapore now, like the ALS, in a way it is more reactive than proactive. However, in the congestion pricing system that we are proposing, we will be using electronic monitoring. And it can be reflected in the electronic road signs so that motorists will be able to know what areas are congested. This technology has been used in Japan, although the pricing part has not been introduced there. In this way, it would be almost instantaneous information to motorists on which areas are congested and what the pricing will be like there if you use that stretch of road. Motorists can then avoid using those roads or be prepared to pay the price and drive through there.

227. Another point related to this is, do you think, and this is going back to Dr Augustine Tan's point, that there is a need to bear in mind of the upper limit capacity for Singapore to have cars? I say that there must be this upper limit and then we apply hand in hand with this road pricing system? - (*Mr Ng Ser Miang*) Yes. I think we have stated in our paper that the public must also learn to accept

the fact that there is a limit to the number of cars in Singapore. But at the same time, it is also necessary to make sure that we avoid harsh measures that will not ensure that the roads are fully utilised, especially in critical areas like the CBD.

*Dr John Chen Seow Phun*

228. In one of your proposals or comments you touched on the evening ALS. I can see some merits in your proposal to shift the ending time of the evening ALS from 7 pm to 6 pm, although I am not so sure whether 6 pm is the right time or 6.30 pm, 6.15 pm or whatever. Can you elaborate on the advantage of such a move? - (*Mr Ng Ser Miang*) We find that it is quite logical that we should try to end the evening ALS earlier, since the first wave of traffic leaving the CBD heading for home would have already cleared CBD by 6 pm and allowing other traffic to enter CBD after 6 pm will also help to alleviate congestion on ring roads. For those who refuse to pay the \$3 to go through CBD in order to get home, they will then be able to come through the CBD after 6 pm.

229. But we have really to look at the figures, the volume of traffic immediately after the evening ALS, how high this traffic volume is, in order to decide whether it is feasible to shift the ending time. Because if the surge in traffic volume is so high that it in fact slows down the traffic in the CBD, then it really defeats the purpose of your proposal? - (*Mr Ng Ser Miang*) Yes, that is quite true. If you end the evening ALS earlier and if there is going to be this surge of traffic going through CBD, then



MINUTES OF EVIDENCE

---

89

2 NOVEMBER 1989

90

---

*Mr Ng Ser Miang (cont.)*

obviously 6 pm is not the right time. However, from opinions that we have got, 6 pm seems to be the right time. Because after 6 pm, it is really the second or the third wave of traffic leaving the CBD heading for home.

your argument? - (*Mr Ng Ser Miang*)  
We have been trying to get the numbers. Unfortunately, those numbers are not available to us yet.

*Dr John Chen Seow Phun (cont.)*

230. Do you have figures to support

*Chairman*] Thank you very much, Mr Ng and your colleagues.

*(The witnesses withdrew.)*

## MINUTES OF EVIDENCE

91

2 NOVEMBER 1989

92

Paper 60 - Mr Dennis Singham and others of Rodyk & Davidson, 6 Battery Road, #38-01, Standard Chartered Bank Building, Singapore 0104.

Mr Dennis Singham was examined.

---

### *Chairman*

231. Mr Singham, for the record, could you tell us your name, address, occupation, organisational affiliation and citizenship? - (*Mr Singham*) My name is Dennis Singham. I am an advocate and solicitor by profession. My address is No. 11, Cassia Drive, Singapore 1128. I represent and I am a member of a Resource Panel and the views I set out here are the views of the members of this Resource Panel in our personal capacity.

232. May I ask who are the other people who have worked with you in this submission? - (*Mr Singham*) Sir, the others who have worked with me on this are Mr Chia Kok Leong, Mr Raymon T.H. Huang, Mr Pok Sheung Foo, Mr Jon Quah, Mr Guntor Sadali, Mr Tan Hup Foi and Mr Tay Puan Siong.

233. Mr Singham, your group states that your panel strongly believes that the policy of the Government in attempting to curb the car population in Singapore in itself is a wrong policy to adopt. Could you briefly explain to us why you and your group think that it is wrong to curb the car population in Singapore? - (*Mr Singham*) Sir, over the years, the Government has in fact introduced various measures all designed towards reducing the number of cars on our roads in Singapore. Notwithstanding the impositions of these restrictions, the Resource Panel has in fact noted that there has been an increase in the number of cars on the road. Quite clearly, Sir, it is

evident that the restrictions have not worked as effectively as those who introduced them have wanted them to work. The view that this Panel takes, Sir, is this. We believe that it has not been effective for two reasons and we think that the restriction in the number of cars should not be imposed at this time. The first reason is because to a Singaporean, the car is looked upon as a status symbol and to a large extent as evidence of success. Sir, if I may be permitted to use a very colloquial phrase, as far as the Singaporean is concerned, if he has a car, then to him he has "arrived in society", if I may use the phrase. To some people, Sir, the car is an urgent tool for one's occupation. To some people the car is a necessity. To some people, Sir, it is even the cheapest form of transport, taking a family of parents and three children. Sir, to another group of people, having a car is just another phase in their lives. We believe that with that sort of concept in mind what the Singaporean perceives a car to be, a car is used for, we feel that any further imposition of any such restrictions would go towards leading to a negative response and perhaps even to an increase in the number of cars on our roads today. We say this more so, Sir, because until such time as the mentality of the Singaporean with regard to what the car means to him has changed, and in that context the extent to which the infrastructure for the transport system is improved, we see such an imposition as being a little negative and less comforting.

*Chairman (cont.)*

234. You have also stated that you think the restriction on car ownership has been an important factor in emigration of Singaporeans. On what do you base this judgment? On having interviewed potential immigrants or people who have emigrated? - *(Mr Singham)* Sir, the views that I am putting forward are the views of the Resource Panel. We speak in our personal capacities. In that context, Sir, both myself and the other members of the Panel have had discussions on this and we have had personal knowledge of people, friends of ours, colleagues of ours, and social contacts, who may in fact look upon this restriction as perhaps a reason, but not necessarily the prime reason. To that extent, Sir, as I have set out in my paper, the Panel believes that it is one of many reasons why certain sectors of the population may harbour intentions of migration, though I concede, Sir, that it is not the reason.

*Dr Augustine Tan*

235. But if you were to ask those who have actually migrated, you may find that they already - own cars before they migrated? - *(Mr Singham)* I think they may be so, Sir, to a certain point. But I think it is a question of the price they have had to pay for owning that car against the other priorities that they want in their lives. To that extent, Sir, I do not think one could deny that in seeking to migrate, the fact that they may then be able to own a better car or bigger car, or more cars overseas is not the main or principal reason.

236. I am rather alarmed that your Panel which comprises some very learned

people is quite prepared to advocate that there be no restrictions whatsoever on car ownership. Surely one would have thought that the physical constraints would indicate some form of upper limit to the number of cars we can have. I recognise that you stated in your paper that there could be alternatives via underground tunnels, overhead bridges and so on. To a little extent that can be done. But even if you had the tunnels and so on, you still have to have access roads and exit roads and that take a lot of space and land area. I am just wondering whether your Panel has any experience with physical planning. Have you ever looked at the map of Singapore as a whole, the open space that we have? - *(Mr Singham)* Sir, certainly I have looked at the map of Singapore but not from a transport expert's point of view and to that extent, the views that we put forward are personal views. I think it is a question of priority. I recognise it is a question of economics. I also recognise it is a question of pollution. But if you look at it from the point of view of economics, the points, Sir, that you have brought up, that we have land scarcity in Singapore and therefore to use our land to build roads as opposed to housing and other social amenities may not represent good economic use. I think to some extent that is true. But if you look at it from the point of view of the Singaporean and in terms of what his priorities are, and what the car means to him, I think there will be a slight divergence and a reshuffling of priorities. I concede that if a Singaporean wishes to have a car and recognises that a car pays a price in terms of land use, but if the Singaporean is prepared to bear with the congestion on the roads, then I believe that until such time as the infra-

structure of our bus system, of our ancillary services are improved, it will be an unfair imposition to a certain degree to say, "Look. You can have X number of cars on the road. We need these roads for this use. We need the space for this use or that use. You cannot build roads on that area."

*Dr John Chen Seow Phun*

237. But is it not irresponsible of the Government to allow congestion because of the high population of cars and usage and thereby paralysing the economy and so on? - *(Mr Singham)* I do not believe my Government is irresponsible. I believe the Singapore Government is very responsible and I think, to a large extent, they have in fact been extremely responsible in the measures they have introduced to-date, save that there should be a certain amount of comfort given to the Singaporean to say that there is a price to pay for this.

238. Hence ownership and usage controls? - *(Mr Singham)* I believe it would ultimately find its own level.

239. What level? Congestion level? - *(Mr Singham)* Congestion level.

*Dr Augustine Tan*

240. Are you prepared to put up with bumper-to-bumper congestion with pollution emitting from the exhausts of the cars? - *(Mr Singham)* I think it is a question of what Singaporeans are prepared to live with. And the panel takes the view that if given time and improvement of the infrastructure, as far as the transport system is concerned, this situation will not arise. The congestion that we

have today on our roads - I speak as an individual and not as an expert on transportation - is that it is limited to certain times of the day. Conceding to that fact, if one takes off-peak periods, take, for example, Orchard Road, on a Sunday afternoon or on a public holiday, I do not believe that the Singaporeans are given the right to buy the cars that they want and in terms of numbers that it will necessarily lead to a bumper-to-bumper situation. I know the sceptics may think that is not true.

*Dr John Chen Seow Phun*

241. But it is happening all over the world? - *(Mr Singham)* We are looking at Singapore. We are not looking at the rest of the world.

242. Why should we be different? - *(Mr Singham)* I think we are looking at Singaporeans in terms of what our needs are. I would not want to compare Singapore with the rest of the world. As far as Singaporeans are concerned, there is a certain recognition among them that it is not fashionable to be seen, for example, wearing a tie, carrying a briefcase and standing at the bus stop.

*Dr Augustine Tan*

243. But they are already doing that on the MRT. I see many young lawyers taking the MRT? - *(Mr Singham)* I take the MRT extensively. But the point I am making is this. We are not seeing them on the buses.

244. When we aircondition the buses, the situation may change. I was in Hawaii and I saw many people go up the buses because they are air-conditioned? - *(Mr Singham)* This is why in the paper we

*Mr Singham (cont.)*

presented, we set out various types of ways in which we think the system can be improved. Air-conditioning the buses is just one way that I think would add as an attraction to those who travel by bus. There are other ways.

*Dr Augustine Tan (cont.)*

245. We have read your paper and I think many of your suggestions are constructive. But I would like to make the point that you are going to increase the frustration level of people. You allow them to own the cars and then tell them to keep their cars in their garage because you raise the usage cost so high. Also bear in mind that the road space already takes up 10% of our land area and Singaporeans are already complaining they do not have enough recreational areas? - (*Mr Singham*) Even with the present restrictions, Singaporeans are complaining.

246. So you want to restrict them further just to build more roads? - (*Mr Singham*) No. I believe that if there is a relaxation of that policy and Singaporeans recognise what their priorities are, it will not give rise to that sort of frustration.

247. Mr Singham, I will feel more comfortable if your panel had advocated that we could double the number of cars on the road, put a quantity, and say, "Look. We believe we can accommodate more such cars." Then we could make a study to see whether that figure can be accommodated. But to leave it open-ended and say, "Look. Let everybody

who wants to own a car own a car.", to me, it is really irresponsible? - (*Mr Singham*) If you allow Singaporeans who wish to own a car to own a car, I do not believe that it will result in every Singaporean going out and buying a car. Singaporeans are extremely responsible people. Singaporeans have shown that they respond very effectively and constructively to Government policies and Government measures.

248. But with rising income levels and with the kind of aspirations which you talked about earlier, the top priority would be to go out and buy a car? - (*Mr Singham*) We are talking about the quality of life today and I think as far as the quality of life is concerned, Singaporeans look at the car as part of their quality of life.

*Dr Augustine Tan*] No, no. We are not disputing that. But to say that you can have a free-for-all, no quota system, no restraints on car ownership, I just cannot understand.

*Chairman*

249. Perhaps Mr Singham could be a bit more specific. When you said that the policy of the Government to curb the car population is wrong, are you saying that the curbs imposed by way of ARF and import duty should be totally dropped? - (*Mr Singham*) No.

250. Or are you saying that we should not increase it any further? - (*Mr Singham*) I am saying that we should not increase it any further.

251. That is different from saying that there should be no curbs, because the existing ARF and import duty levels

already present a considerable deterrent. The curbs are already there. Perhaps you want to rephrase yourself. Perhaps you want to say that the Government should not attempt to increase curbs on the car population rather than you should not curb at all, because that is a very strong statement to make? - (*Mr Singham*) Sure. I think that is so, looking at it from the point of view of the Singaporean. We were looking at it from the point of view of hoping not to see any further impositions on car ownership in Singapore. I think we have come to live with what there is.

252. If that is the case, I think you need to rephrase your submission in which you said that there should be no curbs at all. What you really mean is that there should not be a stepping up of the curbs? - (*Mr Singham*) Or any more curbs.

253. Right, or any more curbs. And not that there should not be any curbs at all? - (*Mr Singham*) Sure.

254. I am glad you said that because it makes it much clearer? - (*Mr Singham*) Or any more curbs, yes.

255. You concede there should be some curbs at the present level? - (*Mr Singham*) I think the curbs that we have had, we have come to accept and live with. And those are the curbs that we would like to see and no more for the time being.

256. You can live with them. There are people who do not live with them? - (*Mr Singham*) I recognise that.

*Dr Augustine Tan*

257. Are you not concerned at all at

the high rate of increase of car ownership in Singapore? Surely, a simple extrapolation will tell us that it will double the number of cars in X number of years, even with whatever percentage increase. It can triple and quadruple and so on but there must be some physical limits. I am actually amazed that you do not set any physical limit at all? - (*Mr Singham*) Sure. I agree that there must be some limits but the point is this. Until such time as the transport infrastructure is improved -

258. Where is the space to build new roads? - (*Mr Singham*) It does not necessarily mean that we need to build new roads. It could also come in the form of improvement in our present system.

259. Such as? - (*Mr Singham*) Such as, for example, the improvement on our bus system.

260. Which is being done? - (*Mr Singham*) Perhaps not enough is being done.

261. What else could be done? - (*Mr Singham*) I believe if we introduce methods like what we have suggested in our paper with regard to better quality buses, not necessarily air-conditioning them, but perhaps smaller buses that travel in private and public housing estates and that run to a time-table.

262. Have you looked at the economics of providing such bus services? Because I am told the smaller the bus the higher the overheads as a proportion of running the bus? - (*Mr Singham*) In everything, there is an economic point. I recognise that.

263. Who is going to subsidise if a subsidy is necessary? - (*Mr Singham*) I

*Mr Singham (cont.)*

am glad you asked that question because from a commuter's point of view, every cent that the Government subsidises, looked at from the Government's point of view, it is a subsidy. But from the commuter's point of view, it is incentive, an incentive to leave his car behind. He owns a car but he leaves his car behind and says, "Look. I am going to work by public transport."

*Dr Augustine Tan (cont.)*

264. Fair enough. But who pays for the subsidy? - (*Mr Singham*) If certain areas of public use have to be subsidised, I think we have to recognise that.

265. Are you aware that the MRT was subsidised to the extent of \$5 billion? - (*Mr Singham*) I am certainly aware and I am saying that it is for that fact that we need to better improve the infrastructure. My panel is extremely aware of this expenditure.

*Encik Yatiman Yusof*

266. In your submission, you hold the viewpoint that there must be a choice for people to buy cars until such time when the situation finds its own level or limit? - (*Mr Singham*) That is correct.

267. At which level do you pitch this limit - to a situation similar to Bangkok, Jakarta, Manila or to a situation when there is a closure of one lane along East Coast Parkway in the evening causing you to take one hour to travel from, let us say, Keppel Road to Marine Parade? What is the level that you are talking about? - (*Mr Singham*) I believe that if

the transport infrastructure is improved and if it is going to take me 20 minutes to get from my home to my place of work -

268. Where is your home and where is your place of work? The distance is important? - (*Mr Singham*) Yes. If public transport is going to take me as close to, if not equal to the time it takes for me to drive my car to work, I think that is the day and that is the moment of time when the level would reach its point.

269. I am glad you mentioned that it is important for us to measure the efficiency in terms of time between public and private transport. But is it not too far-fetched to expect that situation to be a pre-condition before you decide to give up your car? - (*Mr Singham*) My panel does not believe that it is too far-fetched. We are responsible people. We are level headed about it and we feel that the amount of time, money and the expenditure spent on hearing these views would be well spent if in fact some attempt is made towards implementing and trying to achieve that objective.

*Dr John Chen Seow Phun*

270. I can only see that it will arrive when you have a certain level of congestion. If the road is relatively free-flowing, the time taken when you use your car is always going to be much shorter than public transport? - (*Mr Singham*) Why do we have to wait till that time?

271. That is what I am saying. In other words, you are only willing to switch when the two times are equal. By that, I submit that that will be the time where you have got an unacceptable level

of congestion on the road? - (*Mr Singham*) We are imposing a length of time that may be unreasonable as far as looking towards when these improvements will come. But is not this Select Committee a start?

*Dr John Chen Seow Phun*] But we are saying that that level of congestion is not acceptable and must be avoided.

*Encik Yatiman Yusof*] It must be avoided. We must be seen as taking measures, action and reviewing the position before that unacceptable level reaches us.

*Dr John Chen Seow Phun*

272. And as such, using cars is always better in terms of time consumed? - (*Mr Singham*) Some of these measures that we have suggested can be implemented within a short space of time without the need to impose such -

*Encik Yatiman Yusof*

273. But you are saying that we should now freeze. At this level, just freeze, do not do anything else? - (*Mr Singham*) I believe it will find its level and even now I believe it has found its level.

274. It has or it has not? - (*Mr Singham*) It has found its level.

*Dr Augustine Tan*

275. But that is because a variety of measures are in place? - (*Mr Singham*) And hence I am not advocating that there be any further measures.

*Dr John Chen Seow Phun*

276. Then it will worsen? - (*Mr Singham*) It does not have to be if I say that it has found its level.

*Chairman*

277. Thank you, Mr Singham. Before you go, it should be a matter of record when you mentioned this panel that you represent. This panel is a group of private individuals, some of whom are on the Resource Panel of the GPC on Communications and Information. Is that what you are saying? - (*Mr Singham*) That is right.

278. They do not represent all the members on the Resource Panel? - (*Mr Singham*) No.

279. Are the views that you have expressed in this paper unanimous insofar as your panel is concerned? I notice they have not put their signatures to the paper? - (*Mr Singham*) We have had several meetings. The panel has met several times. We have met, to be exact, three times over a long period of time. \*At these three meetings, although they have not actually signed this representation, it has been circulated to members of the panel and to that extent they recognise and have in fact requested me to set forth these views of the panel.

280. Thank you? - (*Mr Singham*) Thank you very much.

*(The witness withdrew.)*



## MINUTES OF EVIDENCE

---

105

2 NOVEMBER 1989

106

---

*Chairman]* We will take a recess now for lunch and we will continue at 2.00 pm.

*Sitting accordingly suspended at  
12.45 pm until 2.00 pm.*

\*In a letter dated 16th November 1989, Mr Dennis Singham wrote to the Chairman and made the following clarification:

I wish to clarify that the following:-

- (a) Mr Pok Sheung Foo (MRT)
- (b) Mr Tay Puan Siong (SBS)
- (c) Mr Tan Hup Foi (TransIsland)

were present at our group discussions merely as resource persons to provide background information in their respective fields of public transport. As such, the submission of our Resource Panel do not necessarily reflect the views of the three persons aforementioned.'

## MINUTES OF EVIDENCE

107

2 NOVEMBER 1989

108

*Sitting resumed at 2.00 pm*

**[Dr Hong Hai in the Chair]**

*Chairman*] I call the meeting to order. Next witness - Mr Olszewski and Mr Tan.

Paper 30 - School of Civil & Structural Engineering, Nanyang Technological Institute.

The following representatives were examined:

Mr Piotr Olszewski, Senior Lecturer

Mr Tan Yan Weng, Lecturer

*Chairman*

281. For the record, would you please state your name, address, occupation, organisation and your citizenship? - *(Mr Piotr Olszewski)* I am Piotr Olszewski of 63 Nanyang View, Senior Lecturer at the Nanyang Technological Institute. I am a Polish national. *(Mr Tan Yan Weng)* My name is Tan Yan Weng from the School of Civil and Structural Engineering, NTI. I am a Malaysian and Singapore PR. I am a lecturer at NTI.

*Encik Yatiman Yusof*

282. In your paper you have said, among other things, that, "All transportation systems are designed to allow a certain amount of congestion during the peak periods, so that most of the time the facilities would have reasonable levels of usage." What do you think is the equilibrium level of usage and how best it can be achieved? - *(Mr Olszewski)* Mr Chairman, the problem with transportation demand is that it has a very uneven characteristic. There are periods where very heavy flows are observed and there are periods where it is relatively calm.

Most of the time the flows will not be that heavy. So the common practice for design of roads is to adopt a certain percentage of hours where congestion can be allowed. For example, for highway design, it is a common practice to allow 30 hours per year to be congested.

283. But to you, what is the level of equilibrium? - *(Mr Olszewski)* Well, this is difficult to say because it depends on the particular characteristic of a particular system in question. For urban systems where we have very heavy flows, commuter-type flows in the morning and flows in the reverse direction in the afternoon, I would say this would be around 30% above the average mean day levels. So it would be difficult to justify economically to design for the very maximum flow. *(Mr Tan Yan Weng)* Mr Chairman, the contention of this point is that we should allow for a certain amount of congestion to be catered for during the peak hours. So typically in highway engineering design, we design for a 30th highest hourly volume. That means we say in one year we can allow, say, 30 hours when the traffic would exceed that

*Mr Tan Yan Weng (cont.)*

congestion level. Otherwise it will be just purely too uneconomical to design for roads if you just design it to the maximum highest volume.

*Encik Yatiman Yusof (cont.)*

284. I ask this question because it seems to me that there is some departure. Others are saying that we should allow for smooth flowing traffic and some used phrases such as "jam-free traffic system". But in your view, there must be some practical element in it and that there must be some congestion as long as it is acceptable. That is the reason why I ask this question? - (*Mr Olszewski*) I think we should view it in statistical terms because traffic is not the same everyday and there will certainly be days when traffic is higher. Even in Singapore, from our observations, there is at least 5% variation from day to day in peak hour traffic. So if we look at it in statistical terms, we could say that 95% of the time the system should be free from congestion, whereas for 5% of the time, we should allow a certain level of congestion to occur.

285. Also, in your paper you had established five principles of land transportation policy for Singapore - emphasis on restraint of car usage, control of car ownership, priority for public transport and pedestrians in the central area, maximization of public transport and protection of the environment. To what extent do you think that the Government have not implemented these five principles in our land transport policies? - (*Mr Olszewski*) Mr Chairman, these five points are thoroughly elaborated in our

submission. Until now, certainly the emphasis was on restraint of car ownership rather than usage, although we could say that the ALS scheme is already a restraint of car usage. So it was more or less a balanced approach, but with the emphasis on car ownership. We think that in the future the emphasis should be on restraint of car usage rather than ownership. We could quote some studies from Hong Kong where they found that imposing financial restraints on car ownership in 1982 caused a 25% drop in the total car population. But observation of traffic volumes showed that the drop in car usage was only 10%. That means that there is no direct relationship or proportionality between car ownership and usage. And further, these studies showed that the introduction of electronic road pricing scheme would be a much more efficient way of reducing congestion. Because one could allow car ownership to be higher, up to 30%, with the electronic road pricing, given the same level of congestion.

286. So you think that there could be a lot more that can be done in achieving lesser congestion through application of the five principles, apart from what has been done now? - (*Mr Olszewski*) The five principles are only our opinion. We try to sort of put them together. We think that the adoption of clear objectives of transportation policies is very important because it makes the decision-making process later on easier. Because in any transportation system there are always competing demands for road space. For example, if the question is whether to provide an additional pedestrian crossing where, say, pedestrians want to cross a heavy traffic road, of course, this would

cause additional delay to vehicles. So who should get the priority? Pedestrian's interest or motorist's? If we adopt the principle that in the central area, pedestrians' interest should be of high priority, then the answer is simple. And we should provide this additional crossing. But if it happens outside the central area, then perhaps pedestrians can be made to walk a bit further. This is just one example of making the objectives and principles clear. It will help later on in explaining certain decisions. As to the maximization of public transport accessibility to provide a proper balance in a transportation system, everybody agrees that we should encourage the use of public transportation. From the studies of mode of choice, we can conclude that the decision that people make about the mode of transport is based on total travel time, or what is known as door-to-door travel time, rather than just the time spent in vehicles. So for somebody deciding whether to go by car or by public transport, he would consider total door-to-door time. Even if we have an efficient and fast public transportation like the MRT, if the accessibility to the stations is not as good as it could be, it will be a certain deterrent in using this mode. That is why we think that to maximize the utilization of the MRT system, this problem of accessibility to stations could still be considered a little further.

287. Could I take you into a specific suggestion? In your suggestion, you said that there should be a limit to vehicle parking facilities in the congested area to discourage vehicles from going into the congested area. Can you be more specific in the form of measures that could be

taken, apart from suggesting that we could provide car parks at the outlying MRT stations? - (*Mr Olszewski*) What we are saying basically is that the parking policy should be closely coordinated with the traffic policy. If we are introducing measures to restrain traffic, there should be corresponding measures restraining parking as well. Otherwise, what may happen if we provide too many car parks in let us say the central area, they will simply be under-utilized. And from some of the data collected by our students, we know that some car parks in the central area are not fully utilized at present. So we are suggesting that perhaps the standard adopted for parking provision is too high. This standard was recently revised. For office buildings, it has been revised downwards by 40%.

288. Do you think that 40% would be optimum enough or is it still too high to deter cars from being driven into the central areas? - (*Mr Olszewski*) No. It is difficult to say without a detailed analysis, but perhaps it will be sufficient. But the point is that if you look at, for example, the standards adopted in the United Kingdom, they have a clear difference between the provision in the central areas and outside the central areas. So the standard is much lower in the central areas of the cities than outside. In fact, in the central areas, the standard prescribes a maximum number that can be provided by the developer rather than the minimum. The Singapore standard still defines the minimum number that should be provided. Whereas in the UK, for the central areas they have a maximum limit. Outside the central areas they have a minimum.

*Mr Chiam See Tong*

289. Mr Olszewski, in the UK, as regards parking in the central areas and in the rural areas, you say that in the central areas they make less provision for parking. But in Singapore we have the ALS system which already cuts out many cars. So those cars that come in should get a parking space. They have already crossed one hurdle. - (*Mr Olszewski*) Yes, I fully agree. What I am saying here is that the supply of parking and road space should be balanced so that there is no over provision in either one or the other. If we are having the traffic restraint by the ALS system, then the parking capacity should match this restrained level of demand.

290. That is quite right? - (*Mr Olszewski*) At the moment, I think we have a reason to believe that there is over supply.

291. At the moment there is over supply? - (*Mr Olszewski*) Yes.

292. Because the number of cars coming in has already been reduced by the ALS. If there were no ALS or after the ALS period, if you come into town you will find that it is really difficult to get a parking space. Did your students look into this point? - (*Mr Olszewski*) Of course, there can be other factors like different price of different car parks. But in general, in multi-storey car parks very few of them will be full.

293. I do not know. I think you had better make more research on that point. Now, let us take the other point about parking. You recommend that there should be parking close to MRT stations. Have you considered the costs? - (*Mr Olszewski*) Yes, the way we look at it is

that every car parked at an outlying MRT station - we have to emphasise here that we are talking about outlying MRT stations, not close to the central areas, not in the HDB new towns, stations like Buona Vista, Bishan or Lakeside, which are not densely developed areas - every car parked in that area would be one car less taken off the streets in the city and also one parking space less in the CBD.

*Encik Yatiman Yusof*

294. But knowing that the outlying areas are also areas in which the car catchments seem to be relatively lower than the fringe of the cities, how can this measure be effective? - (*Mr Olszewski*) We know that it is effective in other developed countries. If there are any doubts about its effectiveness, we could suggest that it be a pilot scheme. If it could be provided at one location, we could see the effects.

295. We had tried this, not on MRT. Some years ago, we introduced fringe car park system. The system did not encourage people to park their cars except for the one at the National Stadium. The rest ceased to operate a few years after it was introduced. Do you think there is no parallel between this failure and your suggestion to set up similar facilities in MRT stations? - (*Mr Olszewski*) I think the situation now is quite different. First of all, the MRT system is much more competitive than the bus system because of the speed, the comfort, air-conditioning and also perhaps, psychologically, it is perceived as a higher status transportation mode. From the experience of other countries, we can say that this type of scheme is only

effective if parking is provided far away from the central area. If a motorist has to decide whether to park the car and proceed by public transport, if the decision is made very close to his destination, he will not be as likely to quit the car and continue on a congested bus. But if the station is not very far from the place of residence, then I think it is more likely to attract higher usage. *(Mr Tan Yan Weng)* I think we also put in the paper that it should also work together with the ERP scheme, if it is implemented. We mentioned in our paper under car usage that if we do implement the ERP scheme and by having a set of multiple cordons, then you charge the road users by the length of journey. It would automatically try and encourage the long distance commuters to switch over to the public transportation mode, which also ties in quite well with the park-and-ride scheme.

*Dr Augustine Tan*

296. Talking about the ERP, Mr Olszewski mentioned Hong Kong earlier. I understand that this thing never took off in Hong Kong because people perceived it as an invasion of privacy and as an additional tax. Would Mr Olszewski like to comment on this? - *(Mr Olszewski)* On the invasion of privacy issue, I believe they proposed some strict control systems which would ensure that such a system is not misused. I think the main problem in Hong Kong was that it was proposed at the wrong time, at a time when they had a period of recession and, as I mentioned before, total car population decreased by 25%. At that time, the congestion was also reduced and it was difficult to justify the introduction of this scheme at that particular time.

297. You mentioned commercial vehicles in your paper and I was rather struck by the figures that there are almost as many commercial vehicles in Singapore as private motor cars, about 240,000 commercial vehicles in Singapore in 1988. So far the discussion has been focused on private car ownership. But should we not be thinking in terms of making space on our roads for commercial vehicles and the growth of the number of commercial vehicles in order to ensure that the economic life of our nation can proceed? - *(Mr Tan Yan Weng)* Mr Chairman, we have got some figures to support this. If you look at the long-term perspective of vehicle registrations from, say, 1974 onwards to 1988-this is the statistics that we have from the Year Book of Singapore Statistics - you will find that the major growth of vehicles is in the category of goods vehicles. Our figure shows that it almost tripled from a figure of about 36,000 goods vehicles in 1974; at the end of 1988, we had about 108,000 goods vehicles. So the figure almost tripled and that is the highest growth rate for all vehicle types in Singapore.

298. But if we were to do a simple extrapolation and assuming a similar kind of economic growth in the years ahead, we will need to make more room for commercial vehicles, in fact, more room than for private motor vehicles, would we not? - *(Mr Tan Yan Weng)* Our suggestion in the paper is that because of their size and their speed limitations, it is going to be more of a congestion problem in the sense that it is going to reduce the road capacity.

299. I know. I find it interesting that everybody focuses on the negative and

*Dr Augustine Tan (cont.)*

that is congestion. But nobody talks about promoting the economic life of the city. In other words, we need these goods vehicles. We need the commercial vehicles in order that the economic life of the nation can proceed. Goods must move, people must move, for the economic life to be active. So why do we not think more positively in terms of what are the types of vehicles that need to move and then give them the priority? But the focus has been on private motor cars and so on and commercial vehicles are regarded as a nuisance, they take up space, they add to congestion and so on. Can we not think afresh? - *(Mr Olszewski)* When we talk about people, they always have a choice of using public transportation. As for commercial vehicles there is no alternative. Certainly there should be sufficient road space provided so that the economic growth is not in any way hampered. But we suspect that the situation could be that in some cases commercial vehicles are used as a substitute for means of passenger transport. This is observed especially during the morning peak hours where we have a very high percentage of commercial vehicles on the road, which is not like in the other cities where the peak of commercial vehicle traffic is during the mid-day period. In Singapore, we have quite a lot of this movement of commercial vehicles during the morning rush hour. So we do not really know. Unless there is a study to actually find out whether they carry any

loads or what is the purpose of the trips of these commercial vehicles, we do not really know. The suspicion is that they could be used for carrying people rather than goods.

*Encik Yatiman Yusof*

300. One last question. Mr Olszewski said that there is an apparent contradiction in our present evening ALS because charges are applied to the inbound traffic, not the opposite. How can we apply this measure on traffic leaving the CBD, for example? Is there any concrete suggestion? - *(Mr Tan Yan Weng)* Charge them both ways. *(Mr Olszewski)* The suggestion for the future is for the introduction of the electronic road pricing scheme. Perhaps then the charges can be applied both ways, as it was suggested in Hong Kong. At present, of course, we do not suggest that the present system be changed. In fact, we looked closely at some of the recent traffic counts and the impact of the evening ALS is reduction in both numbers of vehicles entering and leaving. So there is an indirect impact on the traffic in the other direction as well. Basically, what we wanted to say here is that the principle adopted should be that the one who creates congestion should pay more. We think such a system would be more equitable and acceptable to the motorists.

*Chairman*

301. Thank you very much? - *(Witnesses)* Thank you.

*(The witnesses withdrew.)*

Paper 29 - Mr Abdul Hussain, Senior Lecturer and Vice-Dean, Faculty of Architecture & Building, was examined.

*Chairman*

302. Mr Abdul Hussain, could you for the record state your name, address, occupation, citizenship and organisation? - *(Mr Abdul Hussain)* I am Abdul Hussain. I am a Sri Lankan by nationality, but a permanent resident of Singapore. I am a Senior Lecturer and Vice-Dean of the Faculty of Architecture and Building, National University of Singapore.

*Dr Wang Kai Yuen*

303. Mr Hussain, I have been reading your paper with very great interest. In your paper, you stated that you agree with the use of car pricing or quota system to control the car population. On the other hand, you said that the policy being implemented is such that every family has a right to own a car. The use of the word "right" is very important to me because sometimes a "right" can be considered as an inalienable right. Perhaps you can elaborate? - *(Mr Abdul Hussain)* Firstly, the way I interpreted the question was about a quota system. I was not quite sure what a quota system was and I perceived that in the Singapore context where the standards of living and the quality of life are increasing every day, that every family should be eligible to have a car. In other words, what I meant by "right" is that, if you take the interpretation of a quota by saying that a person with a certain income can be allowed to own a car and a certain person with another income is not allowed to

own a car. My use of the word "right" is that every individual, irrespective of what his standing is, should be eligible to own a car. In other words, he can buy a car and use it and pay whatever road tax or whatever charge that is required. But he must be eligible to purchase a car if he has the means. That is what I meant by "right".

304. You are not saying that every family should be given a quota to buy a car? - *(Mr Abdul Hussain)* No. If he cannot afford it, there is nothing anybody can do about it. But if a family can afford to have a car, then they should have the right to purchase it. That is what I meant by it. I am sorry for the misunderstanding.

305. Not at all. You have also stated that the electronic road pricing system should be seriously reviewed. In your own words you said "in this case the means may not justify the end." On the other hand, we have heard from a fair number of the other witnesses that the ERP is the most equitable way to regulate congestion. Can you elaborate on this as well? - *(Mr Abdul Hussain)* I do not know much about the details of the ERP system. All I know is what I have read in the newspapers here which quoted some examples. Apparently, it was to be tried in Hong Kong but they removed it. The system, as I understand it, is that the individual owner's movement can be monitored. My fear is that although it is a good system to solve traffic congestion, there could psycholo-



*Mr Abdul Hussain (cont.)*

gically be people perceiving all sorts of social implications which one cannot foresee now. One example is where a car is used by two or three members of the family. The person leaves the car for his wife and the wife uses it or the son or daughter uses it. At the end of the day, maybe the husband or the father, as the case may be, will know exactly where the car has gone and not gone. That worried me a bit - whether it will bring about other problems when your movement pattern is fairly well-known when at the end of the month you get your bill. That is why I thought maybe it should be seriously considered.

*Dr Wang Kai Yuen (cont.)*

306. Basically, you are concerned about the privacy issue? - (*Mr Abdul Hussain*) Yes, privacy issue and leading to all sorts of family problems. At the end of the month you get the bill. It is like the telephone bill and you can say, "My son has used it.". The telephone bill tells you which number you telephoned. The experience I have is of my 14 years' experience in London. If I may draw a parallel, in London, if you telephone internationally, when you get the bill at the end of the day you do not know where you have telephoned. You only get the bill by number of digits. So any guest who comes in could ask to use your telephone and say, "Can I speak to somebody?" and he could be telephoning Los Angeles or Australia and you would not know. But in the Singapore system, which is nice to know, every number is listed. So that idea came to my mind. If at the end of the month, my car bill tells me when and where the car has gone, it could

create a lot of problems within the family, when the son is not supposed to take the car. I was only concerned about the social implications of such a system. If that can be resolved, and it only deals with the usage of the car, then I think it is fantastic.

*Encik Yatiman Yusof*

307. But do you not think that our technology has reached an advanced stage where this problem can be overcome? - (*Mr Abdul Hussain*) I do not know. That is why I have my reservations because, as the newspaper said, Singapore will be the first to implement it. Hong Kong tried and did not want to do it. Because of the unknown factors of the complete entity, I am just throwing out a reservation.

*Dr John Chen Seow Phun*

308. You are saying that if it can be removed, then you will support it? - (*Mr Abdul Hussain*) Fantastic, yes. If you have the total picture and such social ramifications are not there, then, yes, it is a fantastic system.

*Dr Wang Kai Yuen*

309. But, on the other hand, if a user gets a bill on ERP at the end of the month with no details as to where he has incurred the cost, would that not be very confusing to the user to justify why the bill is of that amount? - (*Mr Abdul Hussain*) It would be. This is the paradox in life. On the one hand, it does solve a problem. I am a firm believer that every solution also creates problems.

310. That is true? - (*Mr Abdul Hussain*) And one has to look at that in

totality. I am not saying that it would not. It will be nice for me to have the total bill. For example, it is very pleasant for me to get a telephone bill and I know where my son has telephoned because the numbers are not the numbers that I normally telephone. I am personally concerned that as long as those problems do not emanate, they may be small, but they could be multiplied in all sorts of fashion. It is a reservation really.

311. It is an interesting point because most of the reservations I have heard about privacy issue on ERP centre around maybe the Government or some central authority knowing the whereabouts of the individuals rather than the knowledge of that movement being shared among the family. In fact, it is an interesting observation? - (*Mr Abdul Hussain*) I am only concerned about the problems in each family and that could be multiplied in all sorts of ways.

*Encik Yatiman Yusof*

312. In your submission too, you said and I quote "seriously reduce car parking spaces available within the central business area and also simultaneously increase car parking charges gradually." Can you elaborate on what you mean by "seriously reduce the car parking spaces"? Are you saying that the existing car park facilities in the CBD area are grossly excessive? - (*Mr Abdul Hussain*) Yes, in a way. What I am trying to point out is this. This is a hobby-horse of mine for some years. A car is parked in the house because you own a car. And you only take the car out if you know you can park it. This is the problem with the car. It is an end-to-end situation as opposed to

any other form of transport. I decide to bring the car today because I know I will be given a parking space or I will go to the nearest parking space and put a coupon and park it. The congestion problem in the city is because there are sufficient car parking spaces and the URA is always building car parks. In other words, you are saying, "Bring your car in because I am providing the space to park" but at a cost obviously. If one wants to ease the congestion, then you have to stop the movement of the car at the source, which is at home, and the owner will only take it out if he has got a place to park. Therefore, the provision of car parking spaces by the URA - so many car parking lots not only in the open but even in the buildings is in a way a contradiction to solving the traffic congestion problem of getting the cars into the CBD. That is what I meant.

313. In your assessment, do you have any figures in mind of how much the facilities ought to be reduced? Half? - (*Mr Abdul Hussain*) No. I do not have the statistics at the moment. But obviously what has been built is going to be there. You cannot do anything about it unless you change the use. But I think the URA should seriously stop building car parking facilities within the CBD if one is to stop cars coming in, and not keep increasing the car parking spaces.

314. Would you also be advocating for the conversion of use for the existing multi-storey car parks in the CBD? - (*Mr Abdul Hussain*) One can only come to that sort of conclusion once you analyze what the total car parking spaces you have at the moment, bearing in mind the future traffic that is going to come. If

*Mr Abdul Hussain (cont.)*

at the end of the day you find that the spaces are too much, then you can change the use. As an example, in the city of London, when you put up a planning application for an office building - I am quoting London because that is the only experience I can refer to - for every 12,000 sq ft of office space, you can provide one car parking space. In the URA, you would know that the standards are very low. The way to restrict car parking spaces is to say you can only provide one for that quantum. So you increase the commercial space. You can have some sort of criteria. But ours is very low and therefore when commercial buildings are built you will find that a lot of car parking spaces are provided. Because of the qualitative advantage in driving his own car, particularly in our standard of living, the car is air-conditioned, and he turns on the radio to listen to the news, he does not mind paying the extra car parking charge or the petrol cost because he can safely park the car in the building. You need to stop that.

*Dr John Chen Seow Phun*

315. In your submission, you stated that it begs the question why ALS should be introduced in the evening and you proposed the increase of car parking charges as a means to curb traffic. But how do you handle the problem of people using CBD as a through-way cross-town traffic? They are not looking for a place to park, but they are using the CBD as a short-cut. Without the evening ALS, how do you prevent such incoming traffic? - *(Mr Abdul Hussain)* My statement is part of a total package that I wrote here and I

began with the premise that the Area Licensing Scheme has been successfully introduced in Singapore in the morning. In my observation, I understand it was to solve the congestion problem into the CBD in the morning. That is how the Area Licensing Scheme came into being. If that is the argument, I could not see the rationale of that being applied in the evening, unless we put forward another rationale. Because the original Area Licensing Scheme was to stop the commuting traffic.

316. But congestion in the evening prevents people from getting home early. If the traffic is congested, the workers will take a longer time to get home. Introducing evening ALS and reducing the traffic in the CBD will enable them to get home earlier? - *(Mr Abdul Hussain)* I really do not see that as a problem because, as I stated here, fortunately the Singapore road network system has a very good one way system in most cases and not dual-carriages where cars go in one way and come out the other way. If one looks in detail at the entire restricted zone area, the cars coming out and the cars going in are not on the same road because of the one-way system that we have in Singapore. I do not think there will be a severe problem of people getting home after work because of incoming traffic in the evening. I would rather see, for example, the Area Licensing Scheme fee being increased if you find statistically that it is not getting better. Increase the fee, because my assumption is that you must stop the cars coming in in the morning. Because commuting is a problem and you solve the other problems such as by other means of car parking charges, like I said, or any other means,

MINUTES OF EVIDENCE

127

2 NOVEMBER 1989

128

but not necessarily the Area Licensing Scheme because people perceive it was for a certain objective and cannot see the rationale why that objective applies in the evening.

317. But the CBD is very big and the people who are using it as a cross-town way and the people who are going back and the people who are coming in to shop or whatever may be using the same road? - *(Mr Abdul Hussain)* I do not deny that. My main theory is that the original Area Licensing Scheme was for commuting traffic. Therefore, I did not really see the need to have it in the evenings. And that is why I went on further to say that I was quite surprised why the Area Licensing Scheme fee was reduced. I

would rather see it at the same or at a higher level. Because if you reduce it, for pragmatic reasons, you will have more cars coming in, from the average layman's point of view.

*Dr John Chen Seow Phun*] May I just clarify that the reason why it was reduced is because we have imposed charges on commercial vehicles. And if you do not reduce the fee, then it is going to result in under-utilization of the roads in the CBD. That is the reason why the Government has to reduce the fee.

*Chairman*

318. Thank you very much, Mr Hussain? - *(Mr Abdul Hussain)* Thank you.

*(The witness withdrew.)*

Paper 68 - SAFRA TEAM A

The following representatives were examined:

Cpt (Res) Lye Hoeng Fai

Cpt (Res) Robert Bong

Maj (Res) Goh Hoon Say

Sgt (Res) Mohan Pillay

*Chairman*

319. For the record, would you please state your name, address, occupation and organisation you work for? - *(Cpt Lye Hoeng Fai)* Cpt Lye Hoeng Fai, 567 Holland Road, Singapore 1027; occupation, Engineer; company, Singapore Electronics and Engineering (Pte) Ltd. *(Maj Goh Hoon Say)* Maj Goh Hoon Say, 10-B Braddell Hill #02-14, Singapore 2057; occupation, Trading Manager; company, Hiang Kie Pte Ltd. *(Cpt Robert Bong)* Cpt Robert Bong, Blk 277 Yishun #04-310; Director of Sifortel, the Wywy Group, No. 12 Hoy Fatt Road. *(Sgt Mohan Pillay)* Sgt Mohan Pillay, Block 43 Tanglin Halt Road #10-225; occupation, lawyer; firm, Drew and Napier.

320. Thank you. You were involved in a dialogue some months ago with the Minister and the question of ALS came up. You proposed then that ALS should restrict cars leaving rather than coming into the CBD? - *(Cpt Lye Hoeng Fai)* In the evening.

321. And I believe that at that time the point was dealt with and answered. Was it not convincing enough that you should raise it again today? - *(Cpt Lye Hoeng Fai)* In our opinion, the answer

that the evening ALS was made for in-bound traffic, was more for administrative convenience, such as they can use the same gantry, they can use the same kiosks selling the tickets for the entry. But from the discussion we had within our team, we felt that logically it would be much effective if evening ALS was for out-bound traffic from the CBD. I guess the prime reason for the ALS is to stagger the departure of vehicles for people going home who are working in the CBD. There are other points like if we are worried about people using the CBD as a transit point in the evenings, out-bound restriction on CBD ALS would serve the same purpose because whoever goes in has to come out, unless he is willing to drive around within the CBD for those hours. The other point is of course in terms of retail shops and entertainment establishments within the CBD, the evening ALS for out-bound traffic will not affect their business at all.

*Dr Augustine Tan*

322. Gentlemen, I was intrigued that you constituted yourselves into a team and call yourselves a Cabinet with titles of Prime Minister and so on? - *(Cpt Lye Hoeng Fai)* Could I explain that?

323. If you want to. But I was leading on to a point? - (*Cpt Lye Hoeng Fai*) Sorry. I will take your point first.

324. Since you had a political designation, I was intrigued as to whether your team considered the political cost of car ownership restraint policies as opposed to car usage policies? - (*Cpt. Lye Hoeng Fai*) Yes, we did.

325. Because obviously both sets of policies give rise to frustrations. What was the result of your deliberations? - (*Cpt Lye Hoeng Fai*) I think the result of our deliberations was that we felt that given the current traffic situation, we should no longer focus on restraint on car ownership and that restraint on car usage should be the main focus of policies. I think to meet the aspirations of the younger Singaporeans who see a car as a status symbol, convenience, certain life-style, or what have you, we should allow people to own car, at least not to make it more onerous than what it already is. But to combat traffic congestion, there should be fiscal disincentives aimed at car usage. I do not know whether you have our submission.

326. Yes, we have your submission. But in terms of the ambition of young people to own cars, I really do not see to what extent they have been frustrated, unless they are all thinking in terms of buying new cars. And even in terms of buying new cars, we have seen a substitution process over the years, from bigger capacity cars to lower capacity cars, and from one type of make to another type of make. I think now we are importing some East European cars and so on which are much cheaper with fewer frills. And at the same time, people could easily buy

second-hand cars rather than new cars. We had representation earlier which indicated to us that actually people can buy cars on credit even with no downpayment or with very little downpayment and with very easy terms of repayment over six years. So I really fail to see to what extent the frustration has been caused on this account? - (*Sgt Mohan Pillay*) I think the general impression that most young people have in Singapore is that to own a car is a fairly expensive item on your budget, rightly or wrongly. You may be right in saying that at this point in time it is far easier to own a car than it may have been years ago. But I think I will be right in saying that the general impression given is that unless you really need a car, the general picture that the Government tries to convey is that you should not have one. You should be discouraged from having a car. And everything that is pegged onto the price of a car is pegged on with that disincentive, and that is, it is expensive, so decide for yourself whether you really need it. If we take a look at prices of cars in other parts of the world, I think you will find that somebody starting out early in his career will be able to afford a car much earlier than someone in Singapore. And I think if the emphasis continues to be on making a car less and less affordable to our people, you will reach a point in time where it will start affecting the quality of life, or if not the quality of life, and I think this is equally important, the perception of the quality of life.

327. But car ownership is only one factor in terms of a person's horizon in life. If you were a Japanese young executive today, you would have virtually no hope of owning an apartment. Whereas

*Dr Augustine Tan (cont.)*

for us in Singapore, we have apartments at affordable cost. So I would take issue with that. At the same time, it is not a straightforward dichotomy between car ownership restraint policies and car usage policies because the one impacts on the other. In fact, I am rather concerned that so many people are now advocating car usage policies. I would have thought that the frustration levels are much higher because the 250,000 car owners really get hit all at once with any car usage cost increases. A recent example is when the car park charges were raised. There was a hue and cry all over Singapore. So there must be political repercussions associated with car usage policies? - (*Cpt Lye Hoeng Fai*) No. If I could just answer on that point. I would think that there are more people who do not own cars than there are people who own cars. (*Cpt Robert Bong*) I think we would like to state a point here that we do not advocate abolishing all the policies on discouraging or curbing car ownership. We say it very clearly that we feel that the present policies of curbing car ownership are sufficient, and we do not advocate additional policy to curb ownership. If the problem is congestion of roads in the city, we feel that there should be a policy or way to regulate traffic flow. That is what we actually advocate.

328. Right. But the various car usage policies raise cost not only to the individual owner but raise cost to businesses as well and this must affect the competitiveness of some industries? - (*Cpt Lye Hoeng Fai*) Looking from that viewpoint, it all depends. If the cost of ownership of a car goes up, if there are more measures

implemented, there is an economic cost too, isn't there? And I would think that it is already skewed. Perhaps I should not bring up economics with an economist, but I think the high cost of buying a car is already skewed. Just think of a small business having to make a decision between having an additional car for office usage. That outlay of \$80,000 or \$90,000 or what have you versus perhaps buying an extra personal computer for use in the office or an extra Fax machine for efficiency and productivity, I think that trade-off is already skewed within the Singapore context. Correct me if I am wrong.

329. Okay. But so far as the car ownership is concerned, I think every rational person would agree that because of the smallness of size of Singapore, that given whatever other measures you want to institute, there must be an absolute limit somewhere? - (*Cpt Lye Hoeng Fai*) Correct.

330. And a certain rate of growth associated with it? - (*Cpt Lye Hoeng Fai*) No doubt.

331. And as long as one concedes that point, the cost of owning a car must rise inexorably over the years to come. So that is something which everybody has to live with. But car usage policies are another kettle of fish altogether. They are designed, for example, to make people switch from using cars to using MRT, or using buses. And to me, why put people to the additional frustration, get them to own a car, allow them to own a car much more easily and then frustrate them by raising the cost of using the car? To me, it does not make any sense? - (*Cpt Lye Hoeng Fai*) If I may interject.

Frustrate them in using the car at certain times on certain roads because of congestion. You can own a car, use it in the evenings or on weekends, or during congested hours if you are willing to pay the price of car usage.

332. That is what everybody thinks, that you can so order things that people will only take their cars out in the evenings. And when everybody takes his car out in the evenings, you are going to get congestion in the evenings? - (*Sgt Mohan Pillay*) But if you are talking about an individual who is willing to pay the cost, no matter how high you raise it, then it does not matter to him whether the cost is by way of paying for the price of the car or paying for the use of the car.

333. To those who already own a car, it is a tremendous frustration when the cost of using it suddenly rises? - (*Sgt Mohan Pillay*) But why should they be given extra privileges over those who do not have cars already?

334. It is not a question of privilege, it is a question of how you order your own public transportation system? - (*Sgt Mohan Pillay*) The fact that you own a car in itself, I would think, cannot be a problem. The problem that we have got here must be traffic congestion. Will the fact that an extra Singaporean has a car contributes to traffic congestion? If the answer to that is yes, then we must stop him from owning that car or discourage him from owning that car to whatever extent is practically possible. But unless the answer to the question that owning that car automatically contributes to traffic congestion is always yes, and I do not think that can be the case because a man

can have a car and just keep it for weekend travel.

335. But your particular conclusion, which is right at the beginning of your paper, is based upon the last few years' experience where there was an increase in the car ownership but the average speed of vehicles has not changed significantly. But that is only because we had widened the road system, we had increased the number of expressways and built the MRT. But we are not going to be increasing these things at the same rate in the future. In fact, the Minister has already announced that we have finished most of our major road building programmes and the MRT has already extended to the East. So what else? - (*Cpt Lye Hoeng Fai*) I am glad you asked that point. I think you should look at our submission in greater totality. Yes, the MRT is going to the East this weekend, but there are plans for extension to Woodlands and to Hougang later on. There are also the points about public transport, the improvement in bus services, bus routes rationalisation, through-ticketing. I think we must see all these things in totality. On the one hand, we are advocating restriction on car usage but there must be a concomitant increase in public transport services, the ease, the comforts. So let us look at it as a two-prong approach.

*Mr Ng Pock Too*

336. Cpt Lye, you mentioned in your opening sentence in the Introduction, and this was repeated by Dr Augustine Tan earlier on, "that the increase in the number of vehicles does not necessarily result in increased congestion on our



*Mr Ng Pock Too (cont.)*

roads." I think this is in fact a fundamental assertion that you have made throughout your submission? - (*Cpt Lye Hoeng Fai*) That is right.

337. But would you not agree that there is a finite limit to the vehicular population in Singapore? - (*Cpt Lye Hoeng Fai*) Absolutely. But we have not reached it yet, in our opinion.

338. But this in fact contradicts what you have said in the third sentence, which is:

'The growth in vehicular population therefore does not necessarily and materially affect levels of traffic flow.'

The point I am trying to make is that if you have vehicular population increases indefinitely, for a long period of time, with no controls, no curbs on ownership, no control measures on the usage, you end up in a very chaotic situation? - (*Cpt Lye Hoeng Fai*) Yes, I agree with you absolutely. But if you read our submission, we say that at this point in time, given the current traffic situation, it does not warrant further measures on car ownership. Further on in our paper, we say we reserve the option that further measures may be imposed on car ownership if the situation arises.

339. In your assessment, how long will this take us before we reach that point? - (*Cpt Lye Hoeng Fai*) I think it depends on the traffic situation. I think the generally accepted measure is the average speed of travel on some major roads and we have certain facts and figures. We have not reached that stage. The number of triple red junctions, there are some problems right now. I think

there are about 9-10 junctions. But again, it is not excessive. They are localised, in our opinion.

*Dr Augustine Tan*

340. I did not see any mention of commercial vehicles in your submission. I know that there are as many commercial vehicles as motor cars. There are 240,000 commercial vehicles as opposed to 250,000 cars. The rate of growth of commercial vehicles is higher than that of private motor cars. Therefore, should we not be thinking about that problem and allowing for the growth of commercial vehicles as well? - (*Cpt Lye Hoeng Fai*) I think in our deliberations, we have handled commercial vehicles in the same way as private vehicles in so far as entry into CBD during ALS, increased car parking fees, increased petrol tax.

341. You cannot because motor cars handle people, goods vehicles largely handle goods. They are different kettles of fish? - (*Cpt Lye Hoeng Fai*) Yes, we debated that.

342. You cannot put goods on MRT? - (*Cpt Lye Hoeng Fai*) Correct. That was exactly the point made by a member of the team. (*Maj Goh Hoon Say*) We debated on that point. Basically, we came to the conclusion that it is up to the commercial people to time their deliveries. If they have to time their deliveries or whatever it is, they have to do it in the night, before the ALS or after the ALS. That can be done. It is a matter of just adjusting the time table.

343. Okay. But you have car usage restraint policy so that people will only use their cars at night. Now you have

restraint policy on commercial vehicles, so they only use their vehicles at night. So all the half-a-million vehicles will come out all together at night? - (*Witnesses*) No, it would not work that way. (*Maj Goh Hoon Say*) The question here is trying to smoothen out the peaks. That is all. Our view is that the problem is during the peak hours at the moment. If you can smoothen out the peak, in a way it will solve a lot of problems. (*Cpt Lye Hoeng Fai*) On car usage, the recommendation we make is this. Somebody can still drive in his car, private vehicle or a commercial vehicle, but he pays a price for it.

*Encik Yatiman Yusof*

344. You make a fundamental stand when you say, "Please, do not extend the current level of car ownership restraining policy, but go on with car usage." At the same time you admit that, based on the current situation, there would not be a problem, knowing full well that there will be an annual growth of car population. Yet, you could not pinpoint the time frame in which this would reach a saturation point. How do you reconcile this with the existing policy? Because the Government believes that our approach to car control policy should be a stage by stage approach. We should apply this on the ground that the threshold of pain for car owners keeps on rising year after year. So you keep a lid on the car ownership restriction and apply on car usage. Would you not be actually helping those facing the threshold of pain to continue buying cars? - (*Cpt Robert Bong*) Our thinking is that to directly restrict people from owning cars is not a very acceptable policy. But to tell the people that if you want to buy a car,

"Yes, fine", but to use it during certain time of the day at a certain place, you have to pay a high price. Then that decision has to be taken by the person who is thinking of buying an additional car, or more people buying cars. If he finds that when he buys a car he definitely would like to use it in this area, he would like to pay the high cost of it, he would do it, he would buy it. But if I say that I would like to have a car, but if I can live without a car, because after buying the car, I find that I cannot afford the running of the car, the usage of the car, then I would not buy. Then the impact would not be that great psychologically at least.

*Mr Chiam See Tong*

345. On what basis are you saying that a person after buying a car is unable to use it? - (*Cpt Robert Bong*) Because when we submit our paper, the restriction is not island-wide. It is in the CBD. It is in areas where there are congestions.

346. I would imagine that for a person, or at least for many, far from buying a car as having some kind of a social status, they buy a car for the purpose of using it. And there is no point in buying a car unless he can use it? - (*Cpt Robert Bong*) Everybody would buy a car to use it.

347. That is right? - (*Cpt Robert Bong*) But when to use it or where to use it is a decision they have to make.

348. So unless your usage cost is so high that they are forced to put it at home? - (*Cpt Robert Bong*) For example, I buy a car and I drive to work. But when I want to see a client in Shenton Way, I take a train or take some other

*Cpt Robert Bong (cont.)*

form of transport down. Because it is very difficult to get a car park. It is very expensive to get a car park there. It is so convenient to take the MRT. I would do so. But I am not discouraged from buying a car. So I feel happy.

*Mr Chiam See Tong (cont.)*

349. Even on weekends, if there are too many people using their cars the usage cost will also go up, is it not? - (*Cpt Lye Hoeng Fai*) If the situation gets to such a stage, but from available data, it is not. From the available data, there is congestion along certain main roads and certain junctions. That is the basis in which we look at the problem today and in the foreseeable future.

350. Can I bring you to another point? You have recommended that the evening ALS should be for outward bound traffic? - (*Cpt Lye Hoeng Fai*) That is right.

351. In practical terms, how would the outward bound traffic cause a congestion? I notice, when going to Johor Baru, there is a traffic jam going into Johor Baru, and for those coming out, there is no jam. The outward bound traffic from Johor Baru does not cause any jams? - (*Cpt Lye Hoeng Fai*) No, I would not want to use the analogy of the situation at the Causeway. But if you look at the CBD, as an enclosed space which it is, this is a centre of high employment. There are lots of people working there. At 5 pm or 5.30 pm when everybody wants to go home at roughly the same time, that is where they are going outward bound from the CBD, that is where

the congestion arises. If you have an evening ALS for restricting the outward bound, then people are forced to make a decision to stagger their departure. Let us say the evening ALS for outward bound vehicles is from 4.30 pm to 6.30 pm. Then you can decide to leave before 4.30 pm and therefore you do not have to pay, or if you elect to pay, you leave between 4.30 and 6.30 pm. Or you can, of course, elect to stay after 6.30 pm and leave thereafter and do not have to pay.

352. But do you not agree with me that those traffic coming out are in the first place the traffic that have gone in? The inward bound traffic in the morning does not cause a jam. How can the traffic coming out cause a jam? - (*Cpt Lye Hoeng Fai*) That is a very good point, Mr Chiam. The inward bound traffic in the morning does not cause a jam because of the ALS for the inward bound traffic which forces people to stagger their entry into the CBD in the morning. You have answered my point.

353. No. You are assuming that they are leaving all at once? - (*Cpt Lye Hoeng Fai*) Which they are at this point in time, without restriction. Because there is no restriction for outward bound traffic.

354. I know. But nobody goes home at the same time. They also stagger their departure? - (*Cpt Lye Hoeng Fai*) Roughly the same time, not exactly the same time. They leave within, let us say, plus or minus, half an hour, just enough to contribute to the jam.

*Dr John Chen Seow Phun*

355. Cpt Lye, how do you account for the present improved situation that

we obtain after the implementation of the evening ALS on the inward bound traffic? - (*Cpt Lye Hoeng Fai*) One would assume that any additional measure, which has been the case in the last few months, inward bound evening ALS, would definitely restrict some people, which is enough to bring about the improvement. But in our opinion, a more substantial policy or substantial procedure to combat traffic congestion in the evening would be for outward bound traffic.

*Encik Yatiman Yusof*

356. But certainly the number of inward bound traffic must be significant enough to cause a major traffic jam on the ring roads. It is just a small number of inward bound traffic? - (*Cpt Lye*) There is no difference. Even many outward bound cars would still have to use the ring roads. There is no difference there.

357. I would like to direct this question to Cpt Bong. You had earlier said that by imposing the usage approach, it will give the car owner the choice to decide whether to use the car. If it is so, when and where? And you give the impression that the choice is so elastic. But if you are a person working in the CBD, and being a Singaporean and practical, you want to use the car. Would you not be having a lesser choice? - (*Cpt Robert Bong*) Yes, I still will have a choice to either take a train in, a bus in or drive a car in. I will still have the choice.

358. But you agree that being Singaporean, you are a practical person. You buy a car not because you want to show off, but because you want to use it? -

(*Cpt Robert Bong*) In our discussions, one of which is the status symbol. So we feel that some people buy a car not just for transporting from point A to point B, but also to acquire a certain status in society. (*Sgt Mohan Pillay*) I think we have tried to premise our thoughts in this paper on the basic notion that Singaporeans as a rule are a very practical lot. And that if you make it clear to them that it is going to cost them a lot more to bring their car in to work, rather than take an MRT, when an MRT is equally convenient, the practical Singaporean will decide to take the MRT. Of course, you may have somebody who come hell or high water, decides to take his car in, but here you are talking about a category of people whose choice cannot be altered one way or the other. As far as the people whose choice can be altered, I think the question must surely be to give him an option towards leaving his car at home and taking some other alternative mode of transport in. Of course, if your public transportation is such that there is no other viable alternative for him, then he will be compelled to bring his car in. But if he has a choice, then I cannot see any rational Singaporean deciding to brave the traffic jams, concentrate on the road when he could sit comfortably in an MRT, read along the way and come out as fresh and probably much closer to his office than he could in a car.

*Dr Augustine Tan*

359. If he is really rational, why is he only limited to one status symbol? - (*Sgt Mohan Pillay*) I suppose he could get as many status symbols as he wants. But if you work on the basis of an irrational population, then you are going to find it

*Sgt Mohan Pillay (cont.)*

very difficult to premise any policy because you do not know how they are going to react because all of them are irrational. There has got to be some limit to that school of thought. You have got to work on the basis that most of the population in this country are rational people and given a rational choice will decide rationally. Because if they all decide irrationally, then there is no way to govern this country. Because if you give them an option you do not know what they will do. So I think you have got to work on the basis that the majority of people will decide rationally. Given the choice, they will take the more efficient, less expensive choice.

*Dr Augustine Tan (cont.)*

360. How much would it take to get you to use the MRT instead of your car to work? - (*Sgt Mohan Pillay*) If going to the MRT station from my place of residence was convenient enough.

361. How do you define "convenience"? - (*Sgt Mohan Pillay*) I would think in terms of how many minutes it takes me to get to the MRT station. If I have to take 25 minutes to get to the MRT station and then spend another 15 minutes on the train, then I might decide it is not worth my time. I will just take my car in even if it takes the same amount of time because the MRT station is too far away.

362. And who is going to pay for the cost of making sure you get to the MRT within 5 or 10 minutes? - (*Sgt Mohan Pillay*) You have got to provide him with an incentive. You have got to make the choice.

363. Who pays for the incentive? - (*Sgt Mohan Pillay*) He can pay for it. As had happened in some constituencies, you provide a shuttle service between an outlying residential area and the MRT station. It would appear that in some cases it is economically viable enough to sustain that operation.

364. Where? - (*Sgt Mohan Pillay*) I think there are some constituencies which have this service. Mount Sinai is one of them.

*Dr Augustine Tan*] We were told that it is not viable. We had SBS before this Committee. It is definitely not viable.

*Encik Yatiman Yusof*

365. Actually we have tried to apply this on Henry Park residents and the complaint from SBS is that they are not making money. They are not surviving. And if they are to survive, they have to depend on a subsidy paid by non-car owners travelling on public transport, such as the bus. That will be one of the issues they have to consider too? - (*Cpt Lye Hoeng Fai*) We do not want to prejudge the situation. Again, if you come back to our paper it must be a multi-prong approach. Right now we are testing a certain demand from Henry Park residents to the Buona Vista station. Without the concomitant increase in car parking fees, increase in petrol taxes, more onerous CBD restrictions, then the trade-off is not there.

*Chairman*

366. In your view, should feeder services from private estates to MRT stations be subsidised as much as MRT

services are also subsidised? - (*Cpt Lye Hoeng Fai*) We have not really considered that issue.

367. Should they be subsidised? After all, they are for the same cause? - (*Cpt Lye Hoeng Fai*) The next question of course is, how much is the subsidy?

368. We will talk about the principle first. Should they be subsidised since the MRT is subsidised and you want to make better use of the MRT? - (*Cpt Lye Hoeng Fai*) In principle, no, unless a big part of the population can avail themselves to such services, then you will be subsidising pockets of residents in specific areas. That would not be a good principle.

369. Supposing on a subsidised basis there was a fairly good volume of people willing to take them. I think what happened in Henry Park is that the buses are full during the peak hours. But despite the buses being full, SBS cannot recover its costs. That is because of the nature of bus service. There is demand in the sense that at the right price you will get volume. But at that right price it needs to be subsidised? - (*Cpt Lye Hoeng Fai*) I fail to understand that. It eludes me how it can be crowded and SBS cannot recover costs unless you say that the peak is a very sharp peak.

370. No, it is the price. At 40 cents, which is I think what they are charging, during the peak hours the bus is full? - (*Cpt Lye Hoeng Fai*) Then charge 60 cents until such time the demand is below full capacity.

371. Let me come back to the question. Why do you think that MRT can be subsidised but not the feeder service that

supplies passengers to the MRT? What is sacrosanct about the feeder service that it cannot be subsidised while the MRT can be subsidised? - (*Cpt Lye Hoeng Fai*) If I can argue out this principle. MRT is available to a much wider catchment of the population while feeder services, unless there are so many feeder services that serve so many pockets of the population, it would seem to me that you are subsidising a very specific area or a very small niche of the population, taking Henry Park as an example.

372. So your principle is that when you want to subsidise, you must subsidise a lot of people and not just a proportion? - (*Cpt Lye Hoeng Fai*) No, not subsidise a lot of people. The subsidy insofar as serving a potentially large base or large population.

373. Do you not think that the private estates collectively represent a large population of car owners? - (*Cpt Lye Hoeng Fai*) Yes.

374. In which case, what is the principle you are violating when you are subsidising this large number of car owners? - (*Cpt Lye Hoeng Fai*) I do not have the figures. If you can consider as a principle, just off the top of our head, 30% of our population or 50% of the population, I do not think you are reaching that kind of figures for private housing estates.

375. It could be 30% or more of the car owners, but these are car owners who are contributing greatly to congestion? - (*Sgt Mohan Pillay*) I would think that it is possible to make an argument for the subsidy. Of course, one of the reasons why someone might feel that it is not proper to subsidise is that the users of this service that you are subsidising form a

*Sgt Mohan Pillay (cont.)*

fairly small proportion. But if the benefits that are derived by the non-users as a result of this service being available is that the roads are free from congestion, then I think an argument can be made that by contributing this subsidy you are benefiting as well. Because the first argument that you should not subsidise is based on the notion that you are not deriving any benefit. It is a small group of people who are deriving the benefit. But I think it is possible, if you see in its larger context, that the object of the scheme is to discourage people from bringing their cars in. If the result of that is that public transport can move much faster and the general usage of the road is better, then I would think it is possible to make an argument to subsidise it.

*Dr Augustine Tan*

376. Mr Chairman, I am just wondering whether people realise the numbers they are talking about and whether there is a real problem of congestion. We just made some changes to the morning and evening ALS scheme and they reduced the entry fee from \$5 to \$3 to encourage more private cars to enter. As a result, there was a 13% increase to nearly 20,000 motor cars entering the CBD in the morning. You are advocating a lot of increases in user charges. In order to encourage these 20,000 people to use the MRT, you are hitting 250,000 motorists just to help 20,000 motorists who in any case are not causing congestion any more because the ALS is in place? - (*Cpt Lye Hoeng Fai*) No. I would not take that

point. You are talking about 20,000 entering the CBD and then you bring in the figure of 250,000. There are lots of people who will not be entering the CBD anyway.

377. They are not causing congestion? - (*Cpt Lye Hoeng Fai*) Correct. So they are not being penalised.

378. So why are you advocating more petrol taxes, more car park charges? - (*Cpt Lye Hoeng Fai*) No, no. Again it has to be a basket of disincentives. Let us not take it in specific isolation.

379. But what is the problem you are trying to address? Cars entering CBD, we have already taken care of with the ALS. Now you are trying to induce these 20,000 to use the MRT by subsidising feeder services. Where is the problem? - (*Sgt Mohan Pillay*) The entire thrust of the paper is that if there is a problem of traffic congestion, if there is going to be one in the foreseeable future, what steps should be taken. That is the premise on which this paper is presented. And on that premise, we are of the view that the emphasis in the policy should not be on discouraging car ownership but on car usage. The example that you just brought up is that there was a 13% increase in the number of cars going in because of a \$2 drop in the CBD charges. For sceptics, they feel that increasing the use of the car by \$1 or \$2 is not going to make a significant difference. With a \$2 drop and 13% more car owners are prepared to drive their cars in, the reverse must be true. In other words, if it was still \$5 you

MINUTES OF EVIDENCE

---

151

2 NOVEMBER 1989

152

---

would have 13% less cars going in. (*Cpt Lye Hoeng Fai*) Which was our recommendation. (*Sgt Mohan Pillay*) I think there is some merit in the notion. It should not be dismissed out of hand.

*Chairman*

380. Your point is that it is quite price elastic? - (*Sgt Mohan Pillay*) Yes.

*Chairman*] Thank you very much?

*(The witnesses withdrew.)*



Paper 20 - The following representatives of the Singapore Chinese Chamber of Commerce and Industry were examined:

Mr Ong Lay Khiam, Chairman, Economics Committee

Mr John Y Lu, Council Member

Mr Khor Seng Ping, Assistant Secretary (Research)

*Chairman*

381. For the record, could you please state your names, addresses, organisations you work for and citizenship? - (*Mr Ong Lay Khiam*) I am Ong Lay Khiam. I live at 132 Tamarind Road. I am here representing the Singapore Chinese Chamber of Commerce and Industry. (*Mr John Y Lu*) I am John Lu. My address is 255-A Jervois Road. I represent the Singapore Chinese Chamber of Commerce and Industry. (*Mr Khor Seng Ping*) I am Khor Seng Ping. I live at Blk 10, Joo Seng Road #19-104. I am the Assistant Secretary of the Singapore Chinese Chamber of Commerce and Industry.

382. You are opposed to the ALS evening scheme from what I can gather from your submission? - (*Mr Ong Lay Khiam*) I am sorry, Mr Chairman. With your permission, the Chamber would like to make a supplementary statement which is not very long. It consists of three general points before we move on to the specific points. The first point is that the Chamber is, by and large, supportive of the various measures introduced by the Government in connection with its land transportation policy. While it is the Chamber's long-held belief that the market mechanism should be allowed to function fully, we, however, recognise that if left unchecked Singapore would

face traffic problems of gigantic proportions to the detriment of its economic growth as well as its quality of life. Having said all this, the Chamber would, however, want to highlight our concern on the impact that these measures have had on the cost of doing business here. Our car prices are already among the highest in the world. Our costs in association with car ownership are also very high vis-a-vis our average income level. Many small businesses and individuals of middle and lower income levels have found that car ownership is a major cost item. In this connection, the Chamber would urge that a review be done on the policy of making commercial vehicles liable for ALS licences as it is counter-productive. For those commercial vehicles that have no choice but to enter the CBD, this measure will not cut down the number of vehicles entering the restricted area but only serve as a revenue raising exercise. For those that alter their work schedule just to comply with the ALS restriction, productivity would be adversely affected. So either way it does not strike us as an effective policy. The second point is that the Chamber is of the view that the Government measures to deal with car population should be more focused. The policies should have their aims set at controlling the number of vehicles entering the CBD during the peak hours rather than on car ownership

per se. The measures implemented like high ARF for new cars make no distinction as to the usage of the car to be acquired. Vehicles acquired for uses outside of the CBD or outside of the peak hours should be given separate consideration so as not to frustrate the general population's aspirations of car ownership. One measure which may be worthy of more detailed consideration is that of dual registration, ie, separate registration for cars eligible and ineligible for entering the CBD during the peak hours. We believe that with this measure, car owners who then do not use their cars for entering the CBD during peak hours should not be penalised with high ARF. The administrative arrangements will be akin to that of Q and non-Q plates. The desirable result of this arrangement will be (a) ALS can be essentially scrapped with consequential labour and other cost savings; (b) car usage for leisure purposes and/or outside CBD purposes will not be frustrated. And the last point, the Chamber also hopes to see the Government's existing efforts to decentralize economic activities to areas outside the CBD be expedited. In the long run, we believe that efforts along this direction together with the proposed ERP arrangement may prove to be a solution for our land transportation problems. Thank you, Mr Chairman.

*Mr Chiam See Tong*

383. You have highlighted some very interesting points, in particular to the separate registration for vehicles which you have just mentioned. Can I just touch on this first? At what sort of levels do you think the registration fees should be between ALS and non-ALS vehicles

for this policy to be effective? - (Mr Ong Lay Khiam) In our mind, what we are thinking of is that for those cars that are not intended to enter CBD, maybe no ARF should be imposed. That means if the intention of the car owners is to use the car for week-end purposes or for leisure purposes, and not to drive the car into the CBD during the peak hours, then no ARF should be levied for those cars.

384. But there is a very substantial difference. ARF is 175%, I believe, of the import price. Does your Chamber really suggest this? - (*Mr Ong Lay Khiam*) No. Of course, the specific details can be left to the administrative arrangements. We are talking in terms of the principle.

385. The CBD comprises only a small area in the whole of Singapore and you have to pay such a heavy penalty for entering the CBD, whereas the other major portions of Singapore, you can go in almost at a very cheap rate? - (*Mr Ong Lay Khiam*) Even if that is the point, we are saying that we should not just aim at controlling in terms of car ownership per se. What is more important is that the congestion problem will affect the economic activities. If the cars are being used outside the CBD and outside peak hours, they are not causing any traffic congestion problems.

386. But the Ministry of Communications and Information has in fact identified 17 congested points in Singapore and many of these are outside the CBD area. What have you to say to that? - (*Mr Ong Lay Khiam*) Mr Chairman, I think we should be talking in terms of the principle, whether you agree with the Chamber's point in terms of principle -

*Mr Ong Lay Khiam (cont.)*

that the control should be aimed at usage in terms of cars entering the CBD during peak hours rather than car ownership per se.

*Mr Chiam See Tong (cont.)*

387. All right. Your next point is that you would like to have the ALS charges lifted for commercial vehicles. Am I correct? - (*Mr Ong Lay Khiam*) Yes, that is correct.

388. Is this for passing through or entering into the CBD area? This is for what purpose? - (*Mr Ong Lay Khiam*) For both. In fact, we have feedback from our members that it is very inconvenient for them. We are talking about the small businesses and so on. If they have to bring the vehicle in and they have no other choice, they have to just pay for it anyway. So you are not solving any problem in terms of reducing the numbers of cars. They will still come in and they pay the \$3.

389. Have you made a survey of how many goods vehicles come into the CBD? - (*Mr Ong Lay Khiam*) No, we have not.

*Encik Yatiman Yusof*

390. In your submission, you say that the commercial vehicles have no choice but to enter into CBD during the ALS time. I beg to differ because you can choose off peak hours to deliver goods? - (*Mr Ong Lay Khiam*) Yes. We did cover that point as well. They said that if they have to alter their work schedule just to comply with the ALS, then pro-

ductivity will be affected in the sense that they may have to defer their delivery and so on.

391. No. They can choose to deliver goods outside the ALS period during peak hours or go into CBD during non-peak hours. They can be re-arranged? - (*Mr Ong Lay Khiam*) That will mean that they have to re-arrange their work schedule. Then that will affect their efficiency and their level of service and so forth. Say, for example, a customer needs the spare parts or goods during the ALS hours. Okay, you can choose to deliver goods after the ALS hours, but then your level of service is affected in the sense that you would not be able to meet the customer's requirements.

392. On the same principle, you are strongly against the suggestion that goods vehicle should be allowed to enter the CBD only after office hours to unload goods in the evening. You are strongly against it, based on this principle? - (*Mr Ong Lay Khiam*) Yes.

*Dr Wang Kai Yuen*

393. In the submission of the Chamber, you have touched on PARF. After reading through it, I could not get the impression whether you are supporting the abolition or the retention of PARF? - (*Mr Ong Lay Khiam*) Yes, I agree that the wording of that part is a bit garbled. Our submission says:

'If the PARF system is abolished, owners of cars exceeding ten years old may choose to defer scrapping their cars in view of the high replacement cost of a new car.'

I think we should add that, which is a good point. However, you may have other not-so-good points.

MINUTES OF EVIDENCE

159

2 NOVEMBER 1989

160

394. But you also say that, "the Chamber feels that the abolition of the PARF system would lead to a rapid increase in car population..."? - (*Mr Ong Lay Khiam*) Yes, that is the adverse point.

395. You think that will be the case? - (*Mr Ong Lay Khiam*) Yes. Because judging from the trend, people are quite

prepared to pay rather high prices to buy new cars.

*Chairman*

396. The Chinese Chamber will be back tomorrow when we discuss PARF in full. Perhaps we would pursue that point further tomorrow. If there are no other questions, thank you very much? - (*Mr Ong Lay Khiam*) Thank you.

*(The witnesses withdrew.)*

The following representatives of the Public Works Department were examined:

Dr Tan Swan Beng, Director-General of Public Works

Mr A P G Menon, Chief Transportation Engineer

---

*Chairman*

397. Dr Tan and Mr Menon, for the record, would you please tell us your names, addresses, occupations, professions and your organisational affiliations?  
 - (*Dr Tan Swan Beng*) I am Tan Swan Beng, Director-General of Public Works. I am an engineer by profession. Mr Menon is my Chief Transportation Engineer. He is also an engineer by profession.

398. Dr Tan, could you explain the role of your Department and of the Ministry of National Development in so far as the formulating of the policy on the Area Licensing Scheme is concerned? - (*Dr Tan Swan Beng*) As far as the Area Licensing Scheme is concerned, our job is to furnish to the Ministry of Communications the various options and statistics, and the Ministry of Communications is the one which decides on the policy.

399. I see. So you do not take credit for the failure or the success of the ALS? - (*Dr Tan Swan Beng*) In a way it is up to the Ministry of Communications.

400. On the ALS, can I ask you this. We have received a submission from you that comes to the conclusion that the majority of commuters, as a result of the evening ALS, are getting home earlier from work. On the other hand, we hear a great deal of complaints from the public that many people are getting home later. The statistics you have shown us indicate

very briefly that within the restricted zone travel speeds have improved markedly, whereas on the ring roads it has deteriorated also markedly. On the radial roads and on the expressways, there is slight improvement but not very large. So if we take the first two categories, restricted zone and the ring roads, are you saying that the improvement in the restricted zone more than make up for the deterioration on the ring roads? That is my first question. My second question is, when you say that the majority of people are getting home earlier, are you saying that those who are getting home later are getting home only slightly later. Because the majority of those who are getting home earlier, as I see it, are getting home slightly earlier, not very much earlier? - (*Dr Tan Swan Beng*) According to our statistics, if you look at the figures and if you look at the roads, if you look at the Restricted Zone (RZ) road which constitutes about 21% of the total length of roads, you can see that the speed has increased considerably. If you look at the ring road that constitutes only 12% of the total length of roads, the speed has deteriorated. If you look at the radial road that constitutes 29%, here the speed has increased marginally. If you look at the expressway that constitutes about 38% of the total length of roads, here again the speed has increased. So if we are to look at the total picture, it would appear to me that only a very small proportion of the motorists

suffer in so far as deterioration in speed is concerned. So the conclusion would be that most people are happy.

401. Here again I am not sure whether the statistics bear out the conclusion that you are drawing. It seems to me that the conclusion you are drawing is one of inference rather than of actual observations. In other words, by looking at the speed of traffic at various points, you draw the inference that most people are getting home earlier. Supposing that was true, but supposing you found that 51% of people were getting home five minutes earlier, the other 49% were getting home 25 minutes later, that still is consistent with saying that most people get home earlier. But would you say that was a satisfactory situation? As I see it, what is happening is that people are whizzing through the restricted zone because it is relatively congestion free. And while it may have taken them five minutes in the past to get out of the restricted zone, they are now taking two or three minutes. So they gain two or three minutes. But after they get out of the restricted zone, getting home from the restricted zone, they may be taking 20 minutes longer and this is apparently what has been observed along ECP, PIE, and some of the ring roads. So I am not clear that your statistics actually bear out this inference. In other words, you do not seem to have made the actual measurement of people's travelling times from their work point to their homes. Rather you have measured speeds at various points, and from that you drew that inference? - (*Dr Tan Swan Beng*) If you look at the figures, the worst areas are the ring roads. Can we honestly say that people go home and use the ring roads in

toto? It cannot be so. So the only conclusion that we can, or like what you have said, infer, would be that part of the ring road is used by the people in their going home into the RZ or getting out of the RZ. So if that part is the part where they feel that they suffer, then perhaps that part could be made up by the speed that they gain when they get out of that part.

402. Yes. But that is the assumption you are making. But the observation of many people, and I do not have the full statistics, is that they are gaining time in the restricted zone. But when they hit the ring roads or the expressways, they more than lose the time they have gained in the restricted zone and the net result is that they are getting home later, some of them much later. That is my first point. The second point is that even if the majority, that is 50%-odd were getting home slightly earlier, the other 40%-odd may be getting home much later. That again may not be a desirable result. The point I am making is that you have not actually done the measurement of the travelling time. You have only measured the traffic speeds at various points? - (*Dr Tan Swan Beng*) - I think Mr Menon will elaborate. (*Mr Menon*) Mr Chairman, what we have measured is not just the speed at one location. We have actually travelled from one end to the other using cars.

403. From which end to which end? - (*Mr Menon*) For example, the ring road, we start from one end of the ring road and go all the way to the other end and go backwards. We are talking about the city area. We go into about seven or eight roads within the city. When talking about radial roads, we have to travel

*Mr Menon (cont.)*

from a certain point to a certain point. So it is not a spot speed. It is actually using a car to travel.

*Chairman (cont.)*

404. How many observations did you take? - (*Mr Menon*) We did it throughout the whole day and each observation we took about four times. During the peak hours we did four times, ie, morning peak, four times; mid-morning, four times; lunch time, four times and late afternoon, four times.

*Encik Yatiman Yusof*

405. Did you also cover the lanes affected, three lanes at a ring road, for example. Different lanes will have different speeds? - (*Mr Menon*) Of course, that is true. On the left lane you probably go slower. But we always keep to the centre lane. We do not go to the right or left lane. We keep to the centre lane. That is more representative of the speeds. For the radial roads, we did about 12 roads within the city. For the ring roads, we did all the way, both ways, inner ring road and outer ring road. We did AYE, ECP and PIE. So we covered quite a lot.

*Chairman*

406. But these are sections? - (*Mr Menon*) No. End to end.

407. From one end of the expressway to the other end? - (*Mr Menon*) Yes.

408. But the point I am making is that people do not live at one end of the

expressway and work at the other. People work in the city, get out of the CBD, get on to the ring road, get on to the expressway and get home. When you add all that up, there is no evidence from your statistics here that indeed the majority are getting home earlier. In fact, the observation that some of my colleagues and I have made from the feedback we have got is that many people are getting home much later. So there seems to be a discrepancy between what we hear and observe and the inference you are drawing from the measured speeds on the various highways. For that reason, I would like to suggest that maybe your inference needs to be tested more rigorously by actually measuring travelling time, ie, actually getting off at Shenton Way and driving, say, to Serangoon Gardens now compared to what it was before and conducting interviews with people who commute, whether they are taking less or more time to get home. As I said, based on casual observation, many of us have been told from our grassroots organisations and from our professional friends that they are taking a longer time. We are a little bit troubled by the discrepancy between what is actually being observed and the inference you are drawing from your statistics? - (*Dr Tan Swan Beng*) I would agree with you insofar as your point is concerned. But I would also like to say that when people get home late, they will feedback to you that they get home late. But when people get home early, they never tell you.

*Chairman*] We have had a few cases who did tell us that they got home earlier.

*Mr Lim Boon Heng*] Mr Chairman, would it be more objective if we had a

more comprehensive survey where you take a sample of people and find out before and after this scheme came into operation, whether there has been an improvement or deterioration. Because measuring speeds along certain sections may be open to any form of interpretation. So the real test is how long a person gets home before and after the scheme.

*Dr Augustine Tan*

409. In fact, according to your figures, there is considerable evidence of inconvenience to a lot of people. Take your inbound traffic between 4.30 and 7.00 pm. There was a decrease of 46% which is about 29,000-plus vehicles. These people are either returning to the city where they live or passing through the city to go home which obviously must have been a short-cut for them. You already have 29,000 people at least inconvenienced. Then what about those people who postpone going home because of the ALS scheme in the evening, both into the central city area and to other places? And then your speeds for expressways, very interestingly, you gave an average of two directions. Why did you not give the simple two-way speeds rather than the average of the two directions? Your average shows up well that there was an increase in speed. But I want to see what were the actual speeds going in one direction and going in the other direction? - (*Dr Tan Swan Beng*) Can I answer your first question? Your first question assumes that a reduction in the total number of vehicles is due to the inconvenience that we put on them. But it can also be interpreted that because of the ALS quite a lot of people either switch to buses or to other forms of

transport or they use their cars less. So it does not necessarily follow that we have inconvenienced them.

410. That is an assumption. Everybody assumes a car owner is happy to switch from his car to MRT or from his car to buses. I have yet to see evidence of any sort to indicate this? - (*Dr Tan Swan Beng*) We do not have evidence to prove that there is a switch but I believe that —

411. Therefore, you cannot demolish my point? - (*Dr Tan Swan Beng*) No, no. I believe that according to some survey made earlier there are people who have changed their mode of travel from cars to buses and public transport.

412. How many people? - (*Dr Tan Swan Beng*) Based on the 1975 figures, before the ALS was introduced, 40% of the people travelled by public transport. After the ALS was introduced, about 60% of the people went by public transport. We believe that these figures here, if a conclusion is to be drawn, do indicate that some people either make less trips or switch to public transport.

413. The figures were for 1974-75? - (*Dr Tan Swan Beng*) 1975.

414. How extensive was the survey? - (*Dr Tan Swan Beng*) It was a home interview survey.

415. How many people were surveyed? - (*Dr Tan Swan Beng*) About 6,000 households.

416. Why did you not do a later survey since we now have the MRT? - (*Mr Menon*) We have done one last year and we are doing one more next year.



*Dr Augustine Tan (cont.)*

417. What was the result of the survey done last year? - (*Mr Menon*) The number of people using the public transport is about the same. There is not much change there.

418. Not much change? - (*Mr Menon*) We did it in 1976, 1983 and 1988. From 1976 to 1983, there were more people using public transport. From 1983 to 1988, there was not much change.

419. No. But there is an increase in the population and so on. What we are interested in is the impact of your scheme before and after the survey so that you know whether they are switching. Everybody assumes switching is possible. I want to know to what extent this is possible. Because all the car usage policies are premised on the fact that people are willing to switch. And if they are not, then we are barking up the wrong tree and imposing unnecessary costs? - (*Dr Tan Swan Beng*) We do not have the figures presently for this latest ALS introduction. But my own experience in my own department will bear us out that quite a number of our staff have since not used cars but have used the MRT to come to work and go home.

420. Is that because they want to please you? - (*Dr Tan Swan Beng*) It is not because of that. We hope we can get some figures in this area in our next survey.

*Mr Lim Boon Heng*

421. When is the survey to be completed? - (*Dr Tan Swan Beng*) Some time between February and March.

*Mr Lim Boon Heng*] I think we will come to a conclusion then.

*Chairman*

422. Dr Tan, do you have any objection to these figures being made available publicly, ie, the speeds on the highways that you have presented? - (*Dr Tan Swan Beng*) They are factual. I think it is all right.

423. So could these be made available to the press at the appropriate time at the end of the hearing? Dr Tan, there is also another set of statistics that was previously given to us which I have also asked to be distributed, which is the volume of traffic coming in and out of the CBD before and after the evening ALS was implemented. It shows May 1989 and August 1989 figures for outbound and inbound traffic. Based on these numbers, it would seem that the volume of traffic into and out of the ALS peaks at around 6.00 pm in the evening, maybe a little earlier than 6.00 pm. In view of that, do you see that 7.00 o'clock as the cut-off point for the evening ALS is somewhat late, in that if you were to move it earlier to 6.30 pm it would not really make that much difference to the volume of traffic since it has already peaked? - (*Dr Tan Swan Beng*) From the figures, it would appear so.

424. It would appear that 6.30 would be acceptable or even 6.00 o'clock? - (*Dr Tan Swan Beng*) From the figures itself.

*Chairman*] And you have no reason to doubt the figures.

*Mr Lim Boon Heng*] There is a case for shortening the ALS in the evening from 7.00 pm to 6.30 pm.

MINUTES OF EVIDENCE

171

2 NOVEMBER 1989

172

*Chairman*

425. Or even 6.00 pm? - (*Dr Tan Swan Beng*) As I said, we only provide the statistics and it is up to the decision-maker to make a decision based on the statistics given.

*Encik Yatiman Yusof*] In your analysis, you will find that bringing it half an hour earlier there will not be much disruption as earlier anticipated. What is your view, as a professional?

*Chairman*] I think he has already answered that question earlier.

*Dr Augustine Tan*

426. May I just add a point here? When you present your statistics on a case for and against whatever scheme that you are advising the Ministry of

Communications, surely one of the factors must be the inconvenience caused to businesses in the CBD. You mentioned the convenience to commuters in the CBD going home earlier and at faster speeds. But what about the businesses within the CBD suffering as a result of the ALS scheme? Is there any attempt to evaluate their unhappiness, the loss of business, or inconvenience or whatsoever or is it that they do not count? - (*Dr Tan Swan Beng*) We are professionals. We are technical people. We look solely from the technical point of view.

*Dr Augustine Tan*] So this does not matter!

*Chairman*

427. Thank you, Dr Tan and Mr Menon? - (*Dr Tan Swan Beng*) Thank you.

*(The witnesses withdrew.)*

Paper 25 - The following representatives of NTUC Comfort were examined:

Mr Lew Syn Pau, General Manager

Mr Yang Ban Seng, Assistant General Manager

Mr Nah Tua Bah

Mr Ahmad Bachor

*Chairman*

428. Gentlemen, for the record, could you please state your names, addresses, occupations and your citizenship status? - (*Mr Ahmad Bachor*) I am Ahmad bin Bachor. I am a Singapore citizen. (*Mr Yang Ban Seng*) I am Yang Ban Seng, residing at 46 Jalan Puteh Jinah. I am the Assistant General Manager of Comfort. I am a Singapore citizen. (*Mr Lew Syn Pau*) I am Lew Syn Pau, General Manager of NTUC Comfort. I am a Singapore citizen. (*Mr Nah Tua Bah*) (In Mandarin) I am Nah Tua Bah. I live at Blk 1 Ghim Moh Road, #05-340. I am a representative of NTUC Comfort workers.

429. Mr Lew, could you please state whether you are here in your capacity as General Manager of NTUC Comfort or as a Member of Parliament? - (*Mr Lew Syn Pau*) I am here in my capacity as General Manager of NTUC Comfort and today I have brought two taxi drivers with me.

*Chairman*] Thank you.

*Dr John Chen Seow Phun*

430. Mr Lew, in your submission to the Select Committee, you have stated that the taxi is a public transport. Can you tell us whether there is a difference

between the taxi as a public transport and that of a bus or MRT as a public transport? If there is a difference, what is the difference? - (*Mr Lew Syn Pau*) The main difference is really the number of passengers which take the public transport. In the case of taxis, the average number of riders is two per trip. In the case of buses, I do not know the number, it is probably much more. In the case of MRT, it is probably more. So that may be the difference. But we provide a service for the public, which means any time a member of the public wants our service he can hail a taxi. He can actually use our service. Whereas in the case of private cars, you cannot. It is only used by one person or at the most two persons.

431. So you are saying that it is a personalised public transport. You agree that it is a personalised public transport in that it provides door-to-door service? - (*Mr Lew Syn Pau*) It can provide door-to-door service.

*Encik Yatiman Yusof*

432. Is it also not true that in terms of services, you share the characteristics of other public transport? But as far as profit is concerned, there is a major difference? - (*Mr Lew Syn Pau*) In terms of profits.

433. To the taxi driver, income-wise? - (*Mr Lew Syn Pau*) There are many kinds of taxi organisations. In the case of NTUC Comfort, we are a co-operative. So the members have a stake in the organisation. They are really shareholders of the organisation. They own the taxis. The fares which they collect go to them personally. But, of course, from the gross revenue which they collect, they have to use it to pay for a lot of operating costs. And of course part of the operating costs is actually payment to Comfort for the instalments for his taxi.

434. Do you not agree that while bus drivers or conductors and the MRT operators take home their pay, taxi drivers take home their profit individually? - (*Mr Lew Syn Pau*) To me, it is just an income. It depends on how you define "profit". It is revenue minus operational cost. Whatever is left over, to me, is income. And income to him, you can call it a pay. You can take it as a profit or a surplus. I think the definition of this term is not very important in this context.

*Dr John Chen Seow Phun*

435. Can I pursue the point earlier that I made on the taxi as a personalised public transport? From your explanation, I gather that you are saying that as far as the usage of a taxi or a vehicle is concerned, a taxi provides a more economical way. But do you agree that as far as the road usage or road capacity is concerned, a taxi is no better than a private car? - (*Mr Lew Syn Pau*) In terms of road usage, meaning how many people using a certain portion of the road space at any one time, I agree with you. I do not have the figures for the private cars.

But I can tell you that for the taxi, the average is two persons per taxi at any one time when it is on the road. But in the case of a private car, I think it may be one point something. I think most people drive to work alone, maybe two for some. But I think very few people drive to work in fours or threes. In terms of density, I think we are still better off than a private car. But, of course, we cannot compare with buses or the MRT. That one we cannot deny.

436. As such, are you proposing that taxis should enjoy concessions or subsidies comparable to that of buses. Or do you agree that because of this difference, there should also be some differences, which means that a taxi should be closer to a private car as compared to buses? - (*Mr Lew Syn Pau*) I would like to change the basis. Right now, if I understand the Government correctly, they are saying that you should be taxed according to the congestion you cause on the roads. If you use the same road space, you cause a certain amount of congestion, you should pay a certain amount of taxes. But I think that is not a good way to tax. Because if I may draw an analogy from, say, taxation on property, you are taxing property on usage, not on location, not on size. A residential property, if you use it yourself, you pay less taxes. If it is rented out, you pay a bit more taxes. It is the same thing. If a piece of land is used for commercial purposes, you pay more taxes. If it is used for residential purposes, you pay less taxes. So I think taxes should be imposed based upon the usage. And in this case, I am saying that taxis are used by the public and therefore there is no comparison to private cars. The usage of a private car is totally different.

*Mr Lew Syn Pau (cont.)*

It is actually to a single individual, to the owner. So there is no reason why we should pay the same taxes imposed on private cars because our use is totally different.

*Dr John Chen Seow Phun (cont.)*

437. But your comparison with the property is just one side. Because you also agree in your submission that there is a problem of traffic congestion that we have to tackle. In fact, you also agree that the taxi population should be regulated. And that is inside your submission. If what you say is true, then can we allow any number of taxis on the road? The answer is obviously no? - (*Mr Lew Syn Pau*) That is why we are saying that there should be some regulation on supply. We are not asking for a total free market situation. Because it is a public good and there are some concessionary taxes involved, we are prepared to be regulated.

438. If you regulate the number of taxis and if the Government because of the need to control congestion and therefore the need to control usage, implements usage restraint measures, that would cause the cost of using and owning private cars to escalate. Therefore, I would see a transfer to taxis because people are deterred to own or use cars, the taxi is the next best alternative in terms of comfort. Therefore, there will be a substantial increase in the demand for taxis. And what do you propose to do if that happens? - (*Mr Lew Syn Pau*) This is where we feel that taxi fares should be used to regulate the demand and supply.

*Dr Augustine Tan*] I think at this point I would like to say something on behalf of the taxi drivers. We are talking of 10,699 taxis which comprise less than 2% of the total vehicles on the road of 500,000. And according to the figures supplied by Comfort, the taxis provide 700,000 passenger trips per day which is more than double that of the MRT. You know, everybody takes the negative approach, talks about congestion. Why do we not talk about the economic service which is being provided. 2% of 500,000 vehicles providing 700,000 riderships per day, double that of MRT. So what are we talking about? That they are causing the congestion?

*Dr John Chen Seow Phun*

439. No. We are talking about principles, about what kind of figures that we should have in order that it would not be a major problem of congestion. Because we still need to look at it from the congestion point of view. I am asking if that is the case, should we increase the number of taxis on the road? Because if that is the case, then why not increase it? - (*Mr Lew Syn Pau*) But increasing supply is just one part of the equation. I think if you are an economist, you know that demand and supply depends on the price. What price are you talking about? In this case, the price is the taxi fare. I think you can control the demand by actually either adjusting the taxi fare or you can actually meet the demand by increasing the supply. What we are saying here is that meeting the increased demand just by increasing the supply alone is not a good enough solution. I do not think that is the way we should go, just by giving freely taxi licences to all

kinds of organisations. I do not think that is the way to go.

440. Therefore, if you were to regulate the supply and therefore the fare would have to go up because of demand. I foresee the demand would increase substantially. Do you agree with me that the demand would increase substantially and therefore the fare would have to go up or have to be increased? - (*Mr Lew Syn Pau*) The demand depends on the fare. So if you increase the fare, the demand will come down. For a certain quantity of supply, and supply is usually constant in the short and medium term, it takes time to put a new taxi on the road. So you can take it that supply is quite constant in the short and medium term.

441. Supposing we want to maintain a constant empty cruising rate. For example, say 20% is acceptable. If the demand goes up, the rate goes down, from 20% to 10%, and commuters will start to complain that they cannot get a taxi. You have two choices. One is to increase the number of taxis, the other one is to increase the fare and cause the empty cruising rate to increase back to 20%. If you do the latter, your fare is going to go up. First of all, in your submission you said that taxis cater to the lower and middle-income group earners because they need a taxi sometimes. But eventually my understanding is that if this is the case, if the demand has to go up, the fare will also go up. So you are going to price these lower income group earners out anyway. How do you reconcile this? - (*Mr Lew Syn Pau*) We need to adjust both. We cannot just freeze the supply totally and move the fare up. I think we should do both. We could

choose to increase the supply slowly. They should monitor the empty cruising rate. We should also adjust the taxi fare. So we should not just freeze the taxi fare at a certain level and start trying to meet the demand by increasing supply.

442. What do you propose? I am just trying to get a tenable solution from you. To what level should we increase? You are gradually increasing the fleet size. To what level should we increase the taxi population? - (*Mr Lew Syn Pau*) Right now we already have a very high taxi to population ratio. It is 1:250. That means one taxi serves 250 persons. In Hong Kong, it is 1:350. In the developed countries, it is even more. It is 1:1000. So we already have a very high ratio of taxi to people which is why I think we should not keep increasing the number of taxis. I think at this stage we should start increasing the taxi fare a bit higher, not to price it out of the range of the lower income and the middle income, but to move it up a bit more. I think the taxi fare should increase at about the same rate as the wage increase in a country, because that is the amount of money they have set aside every month for transport cost. If the total wage bill goes up by 10%, I think the expenditure on taxi fares or on transportation should also go up in the same proportion.

443. So if the increase in income is higher than the national average, you are prepared to give it back. Because the fare increase outweighs the average income increase? - (*Mr Lew Syn Pau*) Now you are talking about earnings of taxi drivers.

444. Right. Are you prepared to give back that increase, that margin? - (*Mr Lew Syn Pau*) In what form?

*Dr John Chen Seow Phun (cont.)*

445. Because you are saying that as long as the increase is comparable to the national average, you are quite happy. But what I am saying is that supposing because of the demand, because I foresee that if Government were to implement heavier private car usage control measures, then the demand for taxis is going to be substantially increased. If that is the case, your fare would have to go up and therefore eventually the increase in income might actually be quite substantial. Then what do you do with it? - (*Mr Lew Syn Pau*) Well, do you grudge taxi drivers having a high income?

446. No, I do not grudge. I am just asking? - (*Mr Lew Syn Pau*) I think we should all be happy for them that they have a better standard of living now.

*Encik Yatiman Yusof*

447. Mr Chairman, if I can interject here. I think there are two extreme situations. One, you freeze the taxi supply. You work on the supply and demand based on the fare. The other one is, you totally liberalize the supply of taxis and let the free market decide. Now we are talking in terms of in between the two extremes. I have heard repeatedly that you are not very favourable towards having a sudden or major increase in the supply of taxis. At the same time, you agree that to maintain an efficient and competitive service, there ought not to be a monopoly. What is your view on that? - (*Mr Lew Syn Pau*) We are just 60% of the total taxi population. I do not think we are a monopoly. I would classify the situation in Singapore as an oligopoly, which is a few players in the market. As

such, I do not think we monopolize the taxi market. Secondly, there are competitors in the transport industry. If you look at the total transport industry, the taxi is only a small part of it. In fact, we are not a major player. The buses are the major players. They have more than 1 million passenger trips per day.

448. Is it not true that even within the oligopoly, your organisation is the biggest compared to the Singapore Commuters and the Yellow Top? - (*Mr Lew Syn Pau*) Yes, we are 60%. And 60%, we are like a major shareholder. I do not think we monopolize the market.

449. In that respect, you are the major shareholder and will have the major benefit from any change of policy. Is that not true? - (*Mr Lew Syn Pau*) All policies are benefited by everybody, not just the major players.

450. Would it not be to your interest if there is any change of policy? You have a bigger say as far as taxis are concerned compared to the other two lesser members? - (*Mr Lew Syn Pau*) Yes.

451. So the situation falls under less than absolute oligopoly, meaning it is semi-monopoly. Though you are a party to that oligopoly, but you are the decision maker. You have a tremendous influence over the decisions made. I want to get it very clearly? - (*Mr Lew Syn Pau*) I suppose you can say that we have the major say because we are the largest. But I do not think it is right to say that the others have no say. In fact, we have frequent meetings to discuss on all the decisions.

452. You do have the major say? -  
(*Mr Lew Syn Pau*) Yes. They do give us their inputs. They do give us their views. We take them into consideration before we submit any proposals for fare increases, for example.

*Dr Augustine Tan*

453. Mr Lew, this Committee has been considering a number of proposals to improve the public transport system. One of the proposals that keeps coming up is the provision of feeder services to enable commuters to catch the MRT and not to use their cars. Ideally, the taxi would be the right vehicle for this because they cruise round the private housing estates. But unfortunately your flag down fare is \$1.90 and is standard. Have you ever thought of a special fleet of taxis to go round the private estates with very low flag down rates? That will be an inducement for commuters? - (*Mr Lew Syn Pau*) We have tried this. If you remember, about one year ago we tried a taxi shuttle service between Outram Park MRT Station and the Singapore General Hospital. The fare was less than the flag down fare. In fact, we only charged 60 cents per person. We did this during peak hours only because that was when the demand was. Even then, they found that they did not break even. The sums were not good enough. So, I believe, after about six months we stopped operating. We have tried this. But the number of people going to one place alone is just not enough to make up for the small fares.

454. Was sufficient publicity given to this? - (*Mr Lew Syn Pau*) There was a lot of publicity in the papers.

*Chairman*

455. That would be a good test. Would those people mainly be hospital patients? - (*Mr Lew Syn Pau*) No, they are not patients. They are mostly visitors.

456. Visitors? - (*Mr Lew Syn Pau*) Yes. They come to visit patients during lunch hours and evening hours. Even then with 60 cents, it takes you quite a few trips before you can make up for it.

457. But those are not regular travellers. You do not visit patients every day for a year? - (*Mr Lew Syn Pau*) No.

458. Whereas here we are talking about regular commuters. They have a certain pattern of travel each day. If there is a fleet of taxis that pick up not one passenger, but maybe four passengers - ? - (*Mr Lew Syn Pau*) On a regular basis?

459. On a regular basis? - (*Mr Lew Syn Pau*) The same passengers every day?

460. No? - (*Mr Lew Syn Pau*) Different passengers. Like a shuttle.

461. They can have multi-passenger arrangements, where they pick up one here and one further down the road, and when the taxi fills up, it keeps going? - (*Mr Lew Syn Pau*) It is actually like taxi sharing, is it not?

462. That is right. Taxi sharing and on short routes. Would you think that it would have some chance of success? And if you are not interested, would you mind some other company going into it? - (*Mr Lew Syn Pau*) We would certainly take a look at it. We would study this. But I believe we have tried this once with



*Mr Lew Syn Pau (cont.)*

the shuttle to the city centre, from Sunset Way to Shenton Way. In the end it did not work out for one reason or the other. I was not there at that time. Maybe Dr Wang can remember better. He was a Board member of NTUC Comfort. And he still is.

*Dr Wang Kai Yuen*] Mr Chairman, I could not remember the details. But I believe it is Sunset Way. From my flat I could see the taxi service running from the junction to downtown. I believe that scheme was removed after a while because of low demand.

*Chairman*] But that was not a feeder service. That was direct to the destination.

*Dr Wang Kai Yuen*] That is right.

*Chairman*] Mr Chiam, you have a question?

*Mr Chiam See Tong*

463. Yes, in fact, I was going to ask about this feeder service using taxis. You say that it is not practical? - (*Mr Lew Syn Pau*) It is not economical.

464. You are willing to try? - (*Mr Lew Syn Pau*) Economically, so far the sums have not worked out positively.

465. But you will look into this? - (*Mr Lew Syn Pau*) We are prepared to restudy the proposition. If it is viable, or at least if it stands a 50-50 chance of success, we are even prepared to launch another trial run.

466. Yes, I think you should try this. What about this share-a-cab scheme? Have you tried this? - (*Mr Lew Syn Pau*) Yes, we have done this. This is the Shenton Way service which we were talking about. I think that was about 4 or 5 years ago. I do not remember the exact dates. But it did not work out. So it was stopped.

467. What is this scheme in particular? When we say share-a-cab scheme, I suppose there are many types of share-a-cab scheme? - (*Mr Lew Syn Pau*) If I recall correctly, I think this happened at a time when the CBD was introduced. They wanted to encourage people to park their cars and car pool down. It was something to do with car pooling. So they tried to extend the concept to taxi pooling also. But later on it did not work out. I do not know the reasons but I think it was not viable.

468. Usually a taxi takes only one fare, is it not? - (*Mr Lew Syn Pau*) No, the average is two.

469. If somebody books a taxi, then he has only a ride in the taxi. The taxi driver cannot take somebody else and says, "All right, I am going half-way through. I will drop you down and then I will take the other person for the journey."? - (*Mr Lew Syn Pau*) As long as you continue on the same journey? You pick up somebody else along the journey?

470. No. Assuming at the taxi stand, two persons are almost going to the same direction, but one is nearer than the other. So having dropped one, can you pursue to the next destination? - (*Mr Lew Syn Pau*) Yes. This is still practised sometimes.

471. Is it in practice? - (*Mr Lew Syn Pau*) Yes, some people still do it. Of course, the taxi drivers do not like it very much. But it is legal.

472. It is legal? - (*Mr Lew Syn Pau*) Yes.

473. That is good. Can I go to another area? I believe somewhere in your paper you say that one-third of your taxi fleet is cruising at any particular time. Is that correct? - (*Mr Lew Syn Pau*) Those are the figures we have. 35% empty cruising rate. It is measured using the meter. 35% of the mileage recorded on the meter are not paid for by any passenger. Which means that 35% of the time it is empty.

474. Do you not feel that this is a bit of a waste and that it contributes to congestion on the road? - (*Mr Lew Syn Pau*) But this is service. Let me give you some kind of a range this empty cruising rate has been fluctuating between. Just before 1985 when it was very hard to get a taxi, when taxi fares were very low, the empty cruising rate was about 28-29%. At 28-29%, you would think that it is easy to get a cab because 30% of the time the taxi is empty. Yet, it is very hard to get a cab. You have to wait quite a long time. Just after the drastic taxi fare increase in 1985, the empty cruising rate went up to 60%. At that time, a lot of taxis were going-a-begging for passengers. So that is the kind of range we are talking about. If you have something between 35-40%, it is actually acceptable. You must make it convenient for commuters. At the same time you must be fair to taxi drivers. So anything above 40%, the taxi drivers will actually start feeling the pinch, because almost half the

time they would be cruising without a passenger. Anything less than 35% is good for the taxi drivers because anytime they can get somebody. But commuters will start complaining. So I think we have to maintain a balance here. If we can have a supply of taxis on the road and monitor this empty cruising rate to be between 35-40%, then I think we are doing all right.

475. I am thinking more on the use of a telephone so as to match the demand for the taxi while he is required to go to a certain place. Probably he is cruising because he cannot get a fare. Yet, somebody might be wanting a taxi at a particular point of time? - (*Mr Lew Syn Pau*) Let me explain this.

476. I think the practical solution is in fact to install a telephone in the taxi, as I see in many countries, where you can easily get a taxi? - (*Mr Lew Syn Pau*) We do have a wireless radio set in taxis already. But the empty cruising rate is the average for the whole day. There is actually a mismatch in timing.

477. That is right? - (*Mr Lew Syn Pau*) What happens is that 35% may be the average for the whole day. But during peak hours, it may be very low, maybe 10-20%. And it is very hard to get a cab. Most people start calling for radio cabs at that time and it is very hard to get one because they are all full. If you try to book one during off-peak hours, it is quite easy. The empty cruising rate during off-peak hours may be as high as 50-60%. So we have an average of about 35%, and that is always a problem. I think for the supply of taxis we cannot have a supply that is enough to meet peak hours. Because if you do that, then

*Mr Lew Syn Pau (cont.)*

during off-peak hours the empty cruising rate will be even higher. A lot of taxis will be empty. It happens in every city. You must accept the fact that there is going to be a mismatch between supply and demand, especially in terms of timing. So we must look at the average empty cruising rate.

*Mr Chiam See Tong (cont.)*

478. I think that is the very point. I notice at every traffic junction or traffic stop you see so many taxis. Apparently, there are so many taxis on the roads. If you can cut down this mismatch, then you will cut down the congestion rate on the road, is it not? I think this is a very crucial thing to look into? - (*Mr Lew Syn Pau*) We already have the system to allow you to call in and book a taxi. In fact, the system is supposed to help resolve the mismatch problem, and is there already. But, of course, during peak hours, the supply is limited. You just cannot produce 200 more taxis during peak hours and off-peak hours you deploy them to do something else. That is not possible.

*Dr Augustine Tan*

479. May I register a complaint? I have been nice to the taxi drivers so far, but I have a complaint. When one calls up, say, Comfort, to ask for a taxi, if it is to go to the airport, you almost certainly will get a taxi within a short time. But if it is to a destination close by, you will never ever, seldom ever, get a taxi? - (*Mr Lew Syn Pau*) -It may be because of the pricing.

480. That is it. So maybe you should think of some solution or some system of penalty? - (*Mr Lew Syn Pau*) We will look into this, but this is not a new complaint. It has been brought to our attention very often. If you know how the system works, we can page out your request and if it is a very short journey, they do their own sums, and nobody responds. If nobody responds, we cannot do anything about it. But if it is a lucrative journey, lots of people respond. Obviously, it is a matter of monetary incentives. If the price is right, enough people will respond. If the price is wrong, nobody will respond.

481. If they are given an extra dollar for trips shorter than a certain mileage? - (*Mr Lew Syn Pau*) It is for that reason that we have recently increased the dial-a-cab surcharge from \$1 to \$2.

482. But it does not discriminate between distances. What you want is to ensure you get a cab for shorter distances. Give them a little bit more incentive so that they will turn up? - (*Mr Lew Syn Pau*) We will think about it and we can go back to the Public Transport Council to ask for more incentives.

*Dr John Chen Seow Phun*

483. Mr Lew, there are 15,000 people waiting in the queue for a taxi? - (*Mr Lew Syn Pau*) In our queue there are only 10,000.

484. I know. But we are taking all the taxi companies. What would you say to them and what do you think we should do to meet their needs or aspirations to become a taxi driver? - (*Mr Lew Syn Pau*) First of all, there is no cost in

## MINUTES OF EVIDENCE

191

2 NOVEMBER 1989

192

staying on the queue. And because there is no cost in putting their names on the queue, a lot of people just put their names on the queue in case there is a rainy day and they need to drive a taxi. We have no way of telling actually how many of these 10,000 people really want to drive a taxi when they are offered one.

485. But invariably if you have a taxi available, the one next on the list will take it up? - (*Mr Lew Syn Pau*) When there is a taxi we will call the next person on the queue and you will be surprised that not every person who is next on the queue will take it up straightaway. A lot of them come back to tell us, "Can you

give me one year? I still have something to wind up. I still have this job." That actually happens. They want us to wait for them but of course our policy is no. When we offer it to him, he decides there and then whether he wants it and whether he wants to make a career out of taxi driving. If not, then it must go to the next person on the waiting list.

*Chairman*

486. I think we have had a good discussion on taxis with the NTUC comfort. Thank you very much? - (*Mr Lew Syn Pau*) Thank you.

*(The witnesses withdrew.)*

MINUTES OF EVIDENCE

193

2 NOVEMBER 1989

194

Paper 34 - The following representatives of the Singapore Taxi-Drivers' Association were examined:

Mr Lim Kim Seng, President

Mr Goh Eng Hai, Hon Secretary

Interpretation assisted by Mr Sung Ekee and Mr Lee Hui Huan.

*Chairman*

487. Mr Lim and Mr Goh, for the record, can you state your names, addresses, occupations and your citizenship? - *(Mr Lim Kim Seng)* My name is Lim Kim Seng. I reside at Blk 7, Joo Seng Road, #11-78, Singapore 1336. I am a taxi driver. *(Mr Goh Eng Hai)* I am Goh Eng Hai, also a taxi driver. I live at Apt. Blk 137, Lorong 1A, Toa Payoh.

*Dr John Chen Seow Phun*

488. Mr Lim, in your representation, you mentioned that the taxi is also a means of public transport. But we notice that the taxi is somewhat different from the buses or the MRT. Do you agree to this observation? - *(Mr Lim Kim Seng)* The taxi is also part of our public transport system and we make about 700,000 passenger-trips a day. So we are actually carrying a lot of passengers every day.

489. Do you agree that when a taxi is on the road it carries an average of two passengers at the very most at one time. Do you agree with this? - *(Mr Lim Kim Seng)* On the average we carry two passengers but sometimes we carry more than two. Sometimes it is fewer than two.

490. But the point is this. When a taxi on the average carries only two passengers at one time while the buses and MRT trains carry many more passengers at one time without causing congestion, so the taxi is not as effective as the buses as a means of public transport? - *(Mr Lim Kim Seng)* Yes, but the taxi provides a more convenient and personal service to our passengers. We can drive a passenger to a small lane or more constricted place where the buses cannot reach.

491. I agree that taxis do provide such, useful and special services which buses cannot do. But in terms of traffic congestion, too many taxis would contribute more to traffic congestion than buses? - *(Mr Lim Kim Seng)* In terms of volume and occupation of the road, a bus is three times or more the size of the taxi. We can only say that when two or three buses queue up they take up much more space and cause more congestion than many taxis would. In this respect, I would not say that we are contributing much more to the traffic congestion.

492. But there are only a few hundred buses while taxis number some 10,000, so there is the difference between their numbers? - *(Mr Lim Kim Seng)*

No doubt the number of taxis is more than buses but we do not run on fixed routes like buses and not all the taxis are in the city district causing congestion in downtown traffic. They run all over the places. Sometimes our taxis can run up to Jurong and Tampines or to the new towns. I would not agree that the taxis are contributing significantly to traffic congestion in town.

*Dr Wang Kai Yuen*

493. Mr Lim, you are a taxi driver? - (*Mr Lim Kim Seng*) Yes. I have been driving for 32 years.

494. Mr Lim, can I ask you, as a taxi driver, according to your experience do you consider your line of career as satisfactory or do you find it a bit tough, a hard line or not so good? - (*Mr Lim Kim Seng*) I would say that as it is at present our work is rather tough. We have to run about. We have to put in a lot of efforts before we can make some money. It is not an easy job.

495. But you do understand in the present market there are many people waiting in the line to be taxi drivers. What is your opinion about it? - (*Mr Lim Kim Seng*) It is very difficult for me to answer this question because everybody has his own view on this matter.

496. But in your representation, you requested that when the licences for yellow top taxis are withdrawn they be given to children of those taxi drivers. If this line is not so very good, why do you want to encourage your children to follow

your footsteps? - (*Mr Lim Kim Seng*) I have been a taxi driver for the past 32 years and as it is very difficult for us to obtain a licence, having been a taxi driver all my life I would very much like to retain the licence so that members of my family could continue to make use of it when I retire, maybe at the age of 70. The licence has been so much a part of my life that I would want to preserve it with my posterity. And one of the other reason is that we would like to see the yellow-top taxis remaining as a remarkable feature in Singapore so that our younger generation will continue to see that there are yellow top taxis running in Singapore.

*Dr Wang Kai Yuen*] You mean under certain circumstances it should be preserved.

*Encik Yatiman Yusof*

497. Apart from the sentimental reason, would you not, Mr Lim, like to see your children take up a job with better income, better status than continuing your traditional work as a taxi driver? In other words, do you not want to see an upward mobility of your future generation? - (*Mr Lim Kim Seng*) Personally, I feel that not all the children of taxi drivers can make good and some are economically unable to. Different people have different circumstances. Personally in my case even if my children would like to go to the university I may not be able to afford it. They might as well help me out if they have a licence. I have been driving a taxi for the last 32 years and I am now staying in a one-room rented HDB flat for the simple reason

MINUTES OF EVIDENCE

197

2 NOVEMBER 1989

198

*Mr Lim Kim Seng (cont.)*

that I do not have CPF to make use of to purchase a flat. Since the taxi licence was so difficult to obtain and having kept it for so long in my life, I feel sorry that it should part away from me and not transferred to my children particularly when there is a need to do so. Because I have been driving for so long, to give up the

taxi licence when I reach the age of 70 years would be something that causes a great pain in my heart.

Chairman

498. Thank you very much? - (*Mr Lim Kim Seng*) Thank you.

*(The witnesses withdrew.)*

*Chairman*] The hearing will end now for today and resume at 9.00 am tomorrow morning.

*Adjourned accordingly at Three minutes  
past Five o'clock pm.*

## MINUTES OF EVIDENCE

FRIDAY, 3RD NOVEMBER 1989

9.00 am

PRESENT:

Dr Hong Hai (in the Chair)

Dr John Chen Seow Phun	:	Dr Augustine H H Tan
Mr Chiam See Tong	:	Dr Wang Kai Yuen
Mr Lim Boon Heng	:	Encik Yatiman Yusof
Mr Ng Pock Too		

Paper 21 - Mr Phang Kok Chiew of 51 Duchess Avenue, Singapore 1026, was examined.

199

3 NOVEMBER 1989

200

*Chairman*

499. Good morning, ladies and gentlemen. I call the meeting to order. The first witness, that was scheduled for this morning, Mr Aidi A Rahim, has called in sick and will therefore not be present this morning. We therefore call the second witness, Mr Phang Kok Chiew.

500. Mr Phang, for the record, could you please state your name, address, occupation, the organization you work for and your citizenship? - (*Mr Phang Kok Chiew*) My name is Phang Kok Chiew. My address is 51 Duchess Avenue. The company I am with is Eastreco which is a Nestle research and development company for the Asian region. I am in charge of the agriculture research and development in the company. My citizenship is Malaysian but I am a PR of Singapore.

*Dr Augustine Tan*

501. Mr Phang, you are advocating a modification to the PARF scheme? - (*Mr Phang Kok Chiew*) That is right.

502. Would you like to say briefly what you are advocating? - (*Mr Phang Kok Chiew*) Yes. Since I sent in my written submission, I have added some points. Basically, this submission is confined, as I said earlier on, to some of the current control measures on private cars. I emphasise "private cars", and the measures are the PARF scheme, road tax, parking fee, petrol tax, and in passing I will touch on the MRT scheme and the bus service.

503. Could you just take the PARF scheme? We will ask you questions on this? - (*Mr Phang Kok Chiew*) Could I make some qualifications first before I go on to the PARF scheme because this is related?

504. Yes, please, very briefly? - (*Mr Phang Kok Chiew*) In this submission, the following qualifications are made. As population increases and standard of living improves, the increase in the car population becomes a logical and natural development which we have to accept, and this is my contention, but the



*Mr Phang Kok Chiew (cont.)*

increase needs to be regulated, and I believe in that. The other point is that all private vehicles, regardless of size, make, engine capacity and even to a large extent, the age, contribute equally to traffic congestion, because they become valid later on when I go on. The third point is car ownership and usage must bear a price but such price should be made reasonable by the authorities. These are the qualifications before I go on to the next, which is the PARF scheme. I believe the PARF scheme is basically sound and effective but needs modification on the following shortcomings which I believe are quite obvious. First of all, the 10-year limit for the enjoyment of advantage of the scheme was valid and practical over 10 years ago when the scheme was first introduced and when cars were much cheaper and not so well constructed. But in today's context, I feel that cars are often more expensive than a house and are of much better quality. I think this limitation might become wasteful and also lead to unnecessary loss in foreign exchange to the country. For example, we often see cars, even smaller cars, now carry two- to three-year warranty on manufacturing defects and also a 10-year warranty against rust. The second point is the 10-year limit may in fact encourage the purchase of new cars as a security measure against possible new control measures by the authorities and not as a necessity. I say this because I use my car as an example, and I think that limitation forces owners to replace cars approaching 10 years but which are still in very good shape. And those cars are just to be picked up by somebody else and used for

another few years, which means additional cars are put on the road. I did cite my family's example with two cars, one which was 10 years old and had done only 100,000 km and now still on the road. And the third one may come in about two or three years for the same reason. I believe many car owners are in the same dilemma as I am. The other shortcoming is that the scheme, as often pointed out lately, may be used as an investment to car owners. The third point is that the scheme encourages consumers to switch from bigger to smaller cars because of the high prices, and this is a fact of the rising car prices. The other point is the preferential advantage of 40% (?) of the ARF at the moment. I think this is no longer attractive in many cases where new cars are being sold more competitively with full ARF. How they do it, I do not know. But I suspect it is partly due to the fact that the landed cost of a car is made cheaper by, say, not including some accessories to the car. And also by the fact that car companies can reduce their profit margin perhaps and thus bring down the ARF prices. In this connection, I will have to bring up, as a matter of principle, that a Government company, Intraco, more or less encourages potential buyers to drive away a car with only \$596 on hand. In the business sense, it is not wrong, but in principle I think this is not quite appropriate since it is against the Government policy to have more cars on the road.

*Dr Augustine Tan (cont.)*

505. You are referring to easy credit policy? - (*Mr Phang Kok Chiew*) That is right.

506. Why do we not take the PARF issue first? I take it that you do not quarrel with the principle of the PARF. You only quarrel with the number of years that has been set for the PARF? - (*Mr Phang Kok Chiew*) Yes.

507. So instead of 10 years, you are advocating, say, a 15-year PARF for economic reasons that the cars are still very good and can be maintained and therefore kept on the road after 15 years. But you are not quarrelling with the PARF as such? - (*Mr Phang Kok Chiew*) No.

508. And there is a problem that some people can buy at ARF rather than use a scrap car. There are certain quirks in the market? - (*Mr Phang Kok Chiew*) That is right.

509. And you think that if the PARF were amended to 15 years, that you will be quite happy with it? - (*Mr Phang Kok Chiew*) Might be 15 years or other period of time as they deem fit.

510. My understanding is that you will agree that car ownership and usage ought to be regulated and controlled? - (*Mr Phang Kok Chiew*) That is right.

511. And that by virtue of this, because it has to be some limitation on the rate of growth of car ownership, car prices will rise inevitably from year to year and this may bring unintended wind-falls to certain people? - (*Mr Phang Kok Chiew*) That is right.

512. But that is something which the Government cannot help, is it not? - (*Mr Phang Kok Chiew*) I can suggest some proposals which might help to overcome this. If I may go on.

513. Yes, all right? - (*Mr Phang Kok Chiew*) The first point is to extend to, say, 15 years. That is what you have mentioned, Dr Tan. To discourage using a car as an investment, perhaps we could, say, impose a policy which amounts to an automatic disqualification of PARF privilege once the car is transferred. That means you buy a car, you transfer, you sell it, might be after five years, six years, or two years, the PARF value is gone.

514. But on the point that cars are good investment, I do not think anybody would agree with you at all. If you are saying that because of the rising cost of new cars year to year, that the actual cost of keeping a car so far as depreciation value is concerned, it is actually quite low, I would agree with you. But I have yet to see a car really rise in price beyond the initial price that you paid, unless you keep it beyond a certain number of years it becomes an antique? - (*Mr Phang Kok Chiew*) There are some exceptions. The big cars like the Mercedes and BMW. In fact, there are cases where prices are higher. Of course, in most cases, as you said, it is lower because of depreciation.

515. Right, for most cases? - (*Mr Phang Kok Chiew*) So you do not feel that you lose so much. I think that might be a more appropriate way of putting it.

516. Right? - (*Mr Phang Kok Chiew*) The disqualification of the privilege might be one way to discourage people to own cars because they feel that they do not actually lose that much. As an alternative, you might say, "OK, there will be a limit." Or we stipulate and say that a car owner must own a car for a certain number of years before he is

*Mr Phang Kok Chiew (cont.)*

entitled to the privilege. That means that if he buys a car today and sells the car a few months later, he does not enjoy this privilege. I believe this is quite often the case. People just buy a new car and if they find difficulty in repaying the instalments, they just sell it off. Another alternative is to impose a substantial transfer fee, which makes transfer of vehicles very unattractive.

*Encik Yatiman Yusof*

517. Mr Phang, we have heard people, who advocated to avoid buying cars as an investment, suggesting that PARF should be removed completely. Here you are saying for the same reason that PARF should be extended to 15 years. How do you justify the economic reasons? - *(Mr Phang Kok Chiew)* This is one for one kind of approach.

518. Can you focus on that, please? - *(Mr Phang Kok Chiew)* I will do that. This is actually touched on in my paper. I say revise the scheme to make it very attractive to replace a car with the PARF privilege. In other words, this is to increase the ARF fee substantially. If you do not have a car to replace, you pay very much higher than what you are paying now for a new car. But if you scrap a car, you get a higher reduction, and this is one for one. In other words, it might seem unfair to people who do not have a car now and they have to pay a lot more to own one.

519. Do you not think that by extending from a 10-year PARF to a 15-year, you are actually extending or postponing the problem to the next five years? -

*(Mr Phang Kok Chiew)* No. For example, in my case I have added two cars. This is wrong because I replaced the cars. They are still very good and these two cars are still on the road.

520. If PARF is actually extended? - *(Mr Phang Kok Chiew)* If PARF is extended, I would have kept them.

521. If PARF is for 15 years, would you not be still driving the same car? - *(Mr Phang Kok Chiew)* Yes, this has been our intention. We will use the car for 15 years, not for 10 years. Because we do not use the car that much. There are many cases like ours where their condition would warrant a longer period of usage. This can be monitored by subjecting the cars to a more stringent test after 10 years and to impose perhaps a higher tax or some form of tax.

*Dr Augustine Tan*

522. If it is a matter of the number of years during which the PARF is applicable, the other problems you speak about will still be there. I think the basic problem has to be faced. What is the best way to control car ownership? Basically, there is a price approach, there is a quantity approach. Either you increase the price from year to year or you set a quota and let the market find its level? - *(Mr Phang Kok Chiew)* This one for one is some form of a quota, if you really impose that. Unless one car is taken off the road, no new car is allowed.

523. No. You can allow X number of new cars a year and the rest being a replacement, one for one? - *(Mr Phang Kok Chiew)* I think that is a good way to do it. But meanwhile you should also

encourage car owners to replace their cars with the advantage that they enjoy.

*Dr Augustine Tan*] If you have a means of testing, and we have, a vehicle every year or every three years, and you can ensure that cars are kept in good condition. So there is no reason why a 20-year-old car may not serve you well if you keep it in good condition.

*Dr John Chen Seow Phun*

524. Mr Phang, I think we have to go back to the basic. What is the objective of PARF? - (*Mr Phang Kok Chiew*) To regulate the car population.

*Chairman*] I think I may need to correct you there. The official policy of the Ministry, as I understand it, is that PARF was introduced to discourage old cars from being on the roads that could be a source of pollution, breakdowns and therefore congestion. That was the original official objective as announced by the Ministry of Communications and Information. What happened after that, of course, could be a different story. Some people claim that because of PARF cars have become an investment. That is something we need to examine in some detail in today's hearing. But I ought to point out that originally that was the intention. It was for keeping the average condition of cars on the roads of a certain standard.

*Dr John Chen Seow Phun*

525. Of course, the other effect that we see is that because it encourages people to take their car off the road earlier, it reduces the car population. Just now Encik Yatiman was pressing the

issue that if you extend the period to 15 years, economically it may make sense if your car is good. But it will not result in less cars on the roads and therefore it would not be able to control the number of cars? - (*Mr Phang Kok Chiew*) I do not know. I think there are many cases like ours. In other words, if I could keep my car for 15 years, I would have kept my other two cars, and not buy two new ones.

526. Economically, it makes sense to you. But if you have got 15 years limit, then everybody will do that and therefore no cars are taken off the road? - (*Mr Phang Kok Chiew*) That means there are no new cars either. The number is still there.

527. Basically, if you want to look at the increase in the number of cars, you have to look at who are the people who come into the market. Existing car owners will always replace their cars. So there is no increase in the number of cars. The ones who come in are the people who may be at the margin or the people who just started a job career, that kind of people. So if you have got more old cars available, then definitely you generate demand? - (*Mr Phang Kok Chiew*) Demand for old cars by the new group of people who just come into the work force? Is that the point that you are making?

528. Yes? - (*Mr Phang Kok Chiew*) On the other hand, perhaps some of the present car owners might decide to give up their ownership because of the rising cost of owning a car, and those cars could be used for replacement.

*Dr John Chen Seow Phun (cont.)*

529. Let me go on and examine the proposals that you have made. You are saying that perhaps you could impose an automatic disqualification of PARF. But that does not solve the problem that we face today also. The PARF value will still be there in the sense that it actually favours the existing owners in that as long as he keeps the car, he will have a high discount. And therefore existing owners, as long as they get into the market they will be safe? - *(Mr Phang Kok Chiew)* That is true. That is a sort of an attractive fact that we may have to accept. It is just like a house buyer now who may have to pay, say, a million dollars for a house which 20 years ago was only \$20,000. But he will have to accept that the house now costs a million dollars, not \$20,000 any more. So it is just hard luck for him. I may say that it may sound a little bit vicious but that is a fact that we will have to face. The other point is that it may discourage people from just buying a car for a short period of time and then dispose of it because they cannot actually afford to maintain it. By doing that, they may have to think twice before they take out a new car.

*Encik Yatiman Yusof*

530. Mr Phang, could I take you into a new area of your suggestion? In your submission, you suggested that the petrol price for Singapore be made equal to that in Malaysia? - *(Mr Phang Kok Chiew)* Yes.

531. And all this while the increase in petrol price had been used and I think will still be used as a measure to curb the growth of the car population. How do

you achieve this by actually lowering the petrol price in Singapore equal to that in Malaysia? - *(Mr Phang Kok Chiew)* Before I answer you, could I just mention one last point on the PARF scheme, please?

532. Time is limited. Could you answer this point, please? - *(Mr Phang Kok Chiew)* Just one sentence. On the ARF, we should base on the retail price rather than on the landed cost of cars. That is the last point. On the petrol price, first of all, petrol taxes are artificially imposed by the authorities. So they could be adjusted according to circumstances. If the prices are pushed too high, automatically people will look for cheaper sources. On the other hand, if they are made comparable, say, to Malaysia, Singaporeans might not want to go over to Johor Baru to fill up their tanks. That is one point. This is up to the Government.

533. Is not the number of Singaporean drivers going to Johor Baru a small fraction compared to the car owning population? Hence, not making that suggestion effective? - *(Mr Phang Kok Chiew)* But I think this small number is a big concern to the authorities at the moment to the point that they need to impose the half-tank rule. I think this is a subject which is rather sensitive, embarrassing and in a way annoying.

534. But going by the reality of the economy between Singapore and Malaysia, it shall always remain that our petrol price is higher and will remain higher. If your suggestion is implemented, would that not be undermining our effort to control car ownership? - *(Mr Phang Kok Chiew)* In the

first place, no matter how high you push up the petrol price, people somehow will get used to it. I think past experiences have shown such as in the early 70's and also in the early 80's.

*Dr Wang Kai Yuen*

535. Mr Phang, you made some comment which I think I should say something, since I have a different opinion from you. You make the statement saying that the number of Singaporeans going to Malaysia is a concern to the Government. I do not think that is a fair thing to say? - (*Mr Phang Kok Chiew*) When I say "concern", I mean in the sense of losing revenue, because this point has been raised several times that Government is losing so much revenue a month.

536. In terms of petrol, yes. But in terms of the interchange between people from Singapore and Malaysia, I think it is something that in fact fosters a closer relationship? - (*Mr Phang Kok Chiew*) That is right. I am sorry about that. I did not make it very clear. When I say "concern", it refers to the revenue derived from petrol. Dr Wang, you mentioned about fostering closer relations with our neighbours and this half-tank rule is becoming a sensitive issue even though it is our own policy. But I think it is becoming sensitive. There is a small point on road tax, if I may go on. I feel that the differential rates for different categories of cars, ie, big capacities carry more tax and small capacities carry less tax, will just induce a switch to smaller cars. It does not control the car population.

*Mr Lim Boon Heng*

537. Are you suggesting then that the road tax, whether it is 800 cc or it is 3,000 cc, should be the same? - (*Mr Phang Kok Chiew*) The rate.

538. If it is the rate, it does not solve the problem? - (*Mr Phang Kok Chiew*) It does not solve the problem?

539. Because if you have a smaller capacity engine, you pay a lower price even if the rate is the same? - (*Mr Phang Kok Chiew*) That means it is not effective?

540. In other words, for your suggestion to be drawn to its logical conclusion, you ought to have the same rate of road tax for every car, whether it is 800 cc or it is 3,000 cc? - (*Mr Phang Kok Chiew*) That is right. It might just be a marginal difference. I did not spell it out. In fact, what I mean is that we should perhaps increase the rate for smaller cars so that they need to pay more. Because there are many marginal owners and they should feel the pinch.

*Chairman*

541. Mr Phang, when you say "rate" do you mean per dollar? - (*Mr Phang Kok Chiew*) Rate per cc.

542. A dollar amount or a percentage based on the capacity? - (*Mr Phang Kok Chiew*) That means how many cents per cc for small capacity cars.

543. Cents per cc. That is what you mean by "rate"? - (*Mr Phang Kok Chiew*) That is right.

544. So you want the rate for smaller cars to be the same as for larger cars? - (*Mr Phang Kok Chiew*) It should be

*Mr Phang Kok Chiew (cont.)*

comparable to the big cars so as to make it painful.

*Chairman (cont.)*

545. How do you think most car owners who own smaller cars will feel if you make them pay the same rate as for large cars? - *(Mr Phang Kok Chiew)* I know they will not be happy. It is not popular. That is quite true. If this objective is for the benefit of the country, I think what we need to do is to persuade the people.

546. Would it be consistent with our taxation system? - *(Mr Phang Kok Chiew)* The income tax, for example.

547. That is right? - *(Mr Phang Kok Chiew)* That is different.

548. In which we levy a higher tax rate on the higher income people? - *(Mr Phang Kok Chiew)* But income tax is different. In a way, the Government encourages people to excel and to work hard.

*Encik Yatiman Yusof*

549. But we apply the same principle on property tax too so that the higher income group is taxed more than the lower income group? - *(Mr Phang Kok Chiew)* That is true. But, on the other hand, this is a different matter.

550. Are cars not a form of property to the owners too? It is an asset? - *(Mr Phang Kok Chiew)* Those are not causing problems. But car ownership and car population do cause a problem.

*Chairman*

551. And you would like the lower income earners to pay a higher price? - *(Mr Phang Kok Chiew)* I would not say I would like to. But if this is the way that helps, if Government feels that it has to be done, I feel it will have to be done.

552. Is this view shared by your friends and colleagues? - *(Mr Phang Kok Chiew)* No. Actually this submission is purely my own.

553. Do you think it is a view shared by the middle income to the lower-income earners? - *(Mr Phang Kok Chiew)* I would not say so. As I said, it will be very unpopular. It is politically not wise, I must add.

*Encik Yatiman Yusof*

554. Mr Phang, do you own big or small capacity cars? - *(Mr Phang Kok Chiew)* We now own big capacity cars, 2 litres.

*Chairman*

555. Thank you very much? - *(Mr Phang Kok Chiew)* Could I just touch on one other point, please? Just one last point.

556. Sorry, Mr Phang. We have asked the questions we needed? - *(Mr Phang Kok Chiew)* All right.

557. Thank you very much? - *(Mr Phang Kok Chiew)* Thank you very much.

*(The witness withdrew.)*

Paper 20 - The following representatives of the Singapore Chinese Chamber of Commerce and Industry were examined:

Mr Ong Lay Khiam, Chairman, Economics Committee

Mr John Y Lu, Council Member

Mr Khor Seng Ping, Assistant Secretary (Research)

*Chairman*

558. The witnesses from the Singapore Chinese Chamber of Commerce and Industry have already been introduced yesterday. So we shall not ask them for their names and details. I would like to ask the first question. You say in your paper that PARF has been effective in curbing the growth of the car population and you feel that the abolition of the PARF system will lead to a rapid increase in the car population. Could you briefly explain the economic theory or rationale behind this assertion? - (*Mr Ong Lay Khiam*) Mr Chairman, what we mean here is this. If PARF is abolished, then the number of cars exceeding 10 years old would considerably increase due to the high replacement cost factors. Conceivably, those owners would try to keep their cars for as long as they can. In fact, we have asked some of the people in the trade. They said that if the car is properly maintained, after 12 years or even 15 years, the car should still be in a road-worthy condition. We can foresee that there will be quite a big group of people who will try to maintain their cars for as long as possible. On the other hand, even if the PARF is abolished, based on our observation, Singaporeans, especially the younger generation, will be quite prepared to stretch their financial budget just to own a car, especially when the

finance companies and even the banks are quite accommodative in financing. If PARF is abolished, then the number of old cars will increase and the number of new cars will increase as well, thus causing an increase in the car population as a whole. That is our rationale.

559. Do I understand you right? You are saying that even though the car prices would increase as a result of scrapping PARF, people are rich enough that they will ignore it and continue to buy the same number of cars? Or there will be not much reduction? - (*Mr Ong Lay Khiam*) Yes. There may be some marginal reduction. But based on the observation, as we said, the Singaporeans will be quite prepared to go to a great length just to own a car through borrowings and so on.

560. So you are saying that the number of new cars will not decline much? - (*Mr Ong Lay Khiam*) Right.

561. At the same time, the old cars that might have been scrapped are now not being scrapped? - (*Mr Ong Lay Khiam*) That is correct.

562. Therefore, the net effect is a large increase in the car population? - (*Mr Ong Lay Khiam*) Yes, that is correct, Mr Chairman.



*Chairman (cont.)*

563. Have you by any chance done any statistical analysis to bear out this conclusion? Because there are others who feel that the effect would be different? - (*Mr Ong Lay Khiam*) We have not gone into the quantitative analysis. But we did call a meeting of the member groups which are in this industry. These are the people who know the industry well and this is the feedback given to us by the member trade groups.

564. You are aware that officially the Ministry introduced PARF not to curb the car population, but to keep the quality of cars on the road at a certain standard, ie, to make the car population of fairly good quality, no pollution and fewer breakdowns on the road. That was the official reason for it. But you are saying that unwittingly it has also become an effective means of curbing the car population. Is that what you are saying? - (*Mr Ong Lay Khiam*) In a way, yes. Can I point out that we also feel that ARF and PARF are measures used to control car ownership and not in terms of controlling car usage. That does not seem to be the direction that we are taking in the future.

*Dr Augustine Tan*

565. Mr Ong, I could not see your point at all that scrapping the PARF will lead to an increase in the number of cars on the road because, with the present policy, an owner of a car that can be scrapped for PARF just exchanges his present car for a new one. The car population remains the same. Those who do not have a scrap car buy a new car.

That is the only addition to the car population. When you scrap PARF, the owner of that car chooses to maintain it rather than buy a new car. So that stays the same. And those who will buy new cars continue to buy new cars. So where is the net increase in demand? - (*Mr Ong Lay Khiam*) You are saying that if he keeps to the old car, he will not be buying? a new car.

*Dr Augustine Tan*] Right. If he buys a new car under the present scheme, it is a one-for-one exchange. The car population remains the same. Those who buy on ARF will still buy on ARF when you scrap PARF. So the market is unchanged.

*Chairman*

566. If may interrupt, What Mr Ong said earlier was that if PARF was scrapped and somebody, buys a new car and sells off his old car, that car may not be scrapped. Someone else may pick it up. In other words, there is a market for used cars and the car will remain on the road rather than disappear from the road? - (*Mr Ong Lay Khiam*) Precisely.

567. And the result is that you will have an additional car rather than a replacement situation. That is his argument, if I may paraphrase it? - (*Mr Ong Lay Khiam*). Yes, that is what I mean.

*Dr Augustine Tan*

568. But precisely when you have the PARF, the value of the car, whether you scrap it or you keep it, is higher than when you scrap the PARF, is it not? When you scrap the PARF scheme, the

value of the existing car will go down? - (*Mr Ong Lay Khiam*) You mean the value of the old car.

569. Yes. It will go down? - (*Mr Ong Lay Khiam*) Sure, yes.

570. So how does that increase the car population? It affects the ability of the present owner to buy a new car. If I own, say, a nine-year old car today, under the PARF scheme, it has a certain value. If I sell it right now, I get a higher value. You scrap the PARF, I sell it, I get a lower value. So my ability to buy a new car is diminished when you scrap the PARF. Anyway, you think about that. I am more interested in your other proposal and that essentially is a quota system, a one-for-one replacement, plus X percent growth a year or X number of new cars per year. Would you care to elaborate? - (*Mr Ong Lay Khiam*) This of course may sound a bit extreme, but it can, be used if the situation is such that it warrants this sort of policy. If applied very strictly, then of course there would not be any increase in the absolute number of cars on the basis of one-for-one swop. In order to buy a new car you must go to the market to buy an old car for scrap purposes. In terms of absolute numbers of the car population, it will remain the same.

571. But you are saying a one-for-one plus a guided X percent annual growth rate? - (*Mr Ong Lay Khiam*) Yes. This is a fine-tuning kind of thing. If it is felt that it is desirable for the car population to grow at a lower rate, maybe you can say on the basis of 1% per annum, so that 1% is the so-called guided increase.

572. The only problem with your suggestion is that it gives a windfall gain to those who own existing cars so that if any year the Ministry put a much lower quota for that year, then car prices will go up. One way would be to say that those who scrap their cars, that right to buy a new car is not vested in them or in the dealer or whoever scraps it but it goes back to the Ministry and that adds on to the numbers available for new cars for auction that year. If you have a quota system, that quota must be up for auction and then the prices of new cars will vary with the auction and prices of old cars will then fluctuate accordingly. Do you agree? - (*Mr Ong Lay Khiam*) I suppose that is one variation. As to whether our proposal is equitable, we feel that it is akin to somebody who already owns a terrace house. Because he owns a terrace house or he inherited the terrace house from his parents and now his capacity to upgrade is better than the next guy. Whether it is equitable or not, I suppose that is life. You cannot be equitable in all circumstances.

573. By your own words, you mentioned, that car ownership has got diseconomies because of congestion? - (*Mr Ong Lay Khiam*) Yes, because of our scarcity of space.

574. So the comparison with a terrace house owner is not valid? - (*Mr Ong Lay Khiam*) Land is also a scarce resource as well.

575. That is right. But for the reverse reason? - (*Mr Ong Lay Khiam*) Right.

*Chairman*

576. Can I take you up on the point of equity of the quota system? Supposing

*Chairman (cont.)*

with the present prices in force the natural growth rate in the car population is about 4%. Supposing it is 4%. But supposing a quota system was introduced in which the Government allows a 6% growth, that is, 6% is allowed to be added, in addition to scrapping one for one. Will that then lead to increase or decrease in the cost of cars? - (*Mr Ong Lay Khiam*) I think it depends on quite a few things like the economic conditions and so on.

577. No. The same economic conditions, but the quota is generous. In other words, you can just go and bid for a quota. But because the quota is more generous than the natural rate of increase, would you not think that it is in fact going to lower the price of scrapped cars? - (*Mr Ong Lay Khiam*) You assume other things being equal and if you are increasing the supply side, but holding the demand side, sure the price will come down.

578. Would it not then be the case that the question of whether a quota system is equitable or not is a question of how you fix the quota? If you fix it at the natural rate of increase, then it is neutral. It does not affect your price one way or the other, except for the possible speculative element that may come in. If you fix the quota at a very low value, then the possibility exists for used car prices and the bid price for a new licence to go up. So you agree that in fact it is not so much inequitable, except it is neutral, but depending on how the quota is fixed, it could go one way or the other. But the same effect could be achieved by raising ARF. Instead of making the quota very

small, you could also raise ARF and get the same car population increase, the same desired growth in car population. You could control that through the ARF too. And if you were to raise ARF and squeeze out some buyers, you could view that as inequitable too to the marginal buyer. What I am trying to drive at is, whether it is quota or whether it is adjustment of ARF, the effect is the same. It is a question of how you set it. Do you agree with this? - (*Mr Ong Lay Khiam*) Yes. I think I can agree with it.

*Chairman*] Thank you.

*Mr Chiam See Tong*

579. Mr Ong, just now you mentioned that a car's life can be extended to 12 or 15 years. Is that right? - (*Mr Ong Lay Khiam*) If the cars are properly maintained.

580. But your Chamber is for the scrapping of cars? - (*Mr Ong Lay Khiam*) No. Our Chamber is saying that the PARF system so far seems to serve us well.

581. In other words, your Chamber is for the scrapping of cars within 10 years? - (*Mr Ong Lay Khiam*) Yes, to the extent that it helps to reduce the car population as a whole.

582. If what you say is correct, if a car is still maintainable at 12 to 15 years and a great number of cars being scrapped, do you not think that is a national loss? There will be a great foreign exchange loss? - (*Mr Ong Lay Khiam*) But of course economics is a matter of choices. If the consumers choose to spend their disposable income that way, it is for the market to decide.

583. Do you agree that there is a great foreign exchange loss by scrapping a great number of cars? - (*Mr Ong Lay Khiam*) As I said, it is a matter of choices. If they do not spend money on cars, they spend money on television. Would you say that is a foreign exchange loss as well?

*Dr Augustine Tan*

584. May I just interject here? Are you aware that some of the so-called scrapped cars are actually exported to other countries? - (*Mr Ong Lay Khiam*) Yes, we are aware of that.

585. And to that extent, there is a gain of foreign exchange? - (*Mr Ong Lay Khiam*) Yes, you can put it that way.

*Dr Augustine Tan*] Thank you.

*Mr Chiam See Tong*

586. You would not know the number of cars exported then. It may be only marginal? - (*Mr Ong Lay Khiam*) I suppose ROV may have the statistics. We do not have the statistics.

587. Mr Ong, according to your annex here, the figure for 1988, in fact, there is a greater number of cars bought under the ARF scheme than the PARF scheme. Do you agree? - (*Mr Ong Lay Khiam*) Yes. The figures are there.

588. In other words, it shows that in good times, whether or not there is a PARF scheme, people will still continue to buy cars under the ARF scheme? - (*Mr Ong Lay Khiam*) I think it depends. What is happening now is this. Let us say we take 2,000 cc cars. If those consumers buy the lower end of the 2,000 cc cars,

price-wise, then it may be cheaper for them in fact to just pay ARF rather than to go for PARF. But if they buy the upper end of the 2,000 cc cars, then this PARF will come into play. So it depends on the consumers' preference and the kind of models they choose to buy.

589. But for the smaller cc cars, it is more worthwhile to buy under the PARF system, isn't it? - (*Mr Ong Lay Khiam*) It depends on the price range again.

590. In any event, the absolute numbers show the number of cars bought. It shows that despite the PARF scheme, people are still buying under ARF. Therefore, would you agree with me that the PARF scheme is not working to curb the number of cars? - (*Mr Ong Lay Khiam*) Not quite. I think what is happening is that there is this increase in the number of Korean cars. And Korean cars, let us say the 2,000 cc level, they are at the lower end of the price range. So that explains to a certain extent this disparity.

591. Would it be fair to say that in fact your argument for maintaining PARF is more for business interest rather than for curbing the number of cars? - (*Mr Ong Lay Khiam*) In fact, what we are saying is we think that PARF is something which should be maintained, because it helps to control the number of cars on the road.

592. But you have just said that many second-hand car dealers will lose a lot of assets. Their asset values will be wiped out and finance companies also will be affected if the PARF scheme were - ? - (*Mr Ong Lay Khiam*) I did not say that.

*Encik Yatiman Yusof*

593. Mr Ong, if you have great belief in the effectiveness of PARF to curb the growth of the car population, would you suggest that this scheme, or at least part of it, be extended to non-private owning vehicles or commercial vehicles? - (*Mr Ong Lay Khiam*) For the purposes of -

594. Curbing car population? - (*Mr Ong Lay Khiam*) Are you suggesting that commercial vehicles will now enjoy PARF? But anyway they are not paying ARF.

595. Do you think that by imposing more severe or more punitive measures for commercial vehicles which are also responsible for causing congestion, that we can achieve more effective objective of controlling vehicle growth? - (*Mr Ong Lay Khiam*) In fact, our Chamber's stand on this is quite clear. We think that for commercial vehicles, the treatment should be quite different. Yesterday, we said that even for ALS, all the commercial vehicles should be exempted.

596. If you believe that PARF has been effective, then should not some principles of it be extended also to commercial vehicles because they too cause congestion? - (*Mr Ong Lay Khiam*) Yes. But then the commercial vehicles, because of their economic activities, should not be penalised. Are you suggesting that we have to impose ARF?

597. No. I am asking for your view? - (*Mr Ong Lay Khiam*) Our view is that for commercial vehicles, the treatment should be quite different. They should continue to enjoy this PARF in the sense that no additional registration fee is to be imposed on these commercial vehicles.

*Dr Wang Kai Yuen*

598. Mr Ong, the PARF system is a control measure introduced under the policy to encourage car owners to replace their cars; in other words, to keep the car on the road. In the discussion to repeal the PARF system, without a replacement for that control measure, that would imply that the Government has given up this policy of keeping the car population young. Since that is not the case, in fact nobody has argued against that particular policy, will it be logical to expect that some replacement control measure will be introduced to keep the car population young, instead of PARF? And if that is so, would then the argument whether PARF will be effective in controlling the car population is no longer valid? In other words, to a lot of car owners, PARF is an incentive to replace their cars. The other way of doing the same thing will be punitive measures, fine or increasing road tax due to age of the cars and so on. That can be introduced to achieve the same end as well. Would you not agree that is the case? - (*Mr Ong Lay Khiam*) Yes. I think, by and large, I can agree with you.

599. Would it be logical to expect something like that would happen as well? - (*Mr Ong Lay Khiam*) Maybe you can put it in a more specific term. You are saying that if PARF is abolished, should we introduce other kind of measures to replace it?

600. What I am saying is if PARF is abolished without a replacement policy, then the Government will have to say, okay, the policy of replacing, keeping the car population young will be given up or will be abandoned. But since that is not

MINUTES OF EVIDENCE

227

3 NOVEMBER 1989

228

the case, then I am saying it is logical - since I am not in the Government I would not know - but I think it will be logical that some replacement policy will be put in place? - *(Mr Ong Lay Khiam)* I will expect that to be the case, yes.

601. If that is the case, then we cannot use the argument to say that the PARF system, if scrapped, would increase the car population. Right? — *(Mr Ong Lay Khiam)* Yes. But I think if we stick to the basic, we are saying that if PARF is abolished and if people still keep to their old cars while the number of

new car registration is maintained at the current level, then you are going to have this problem. I mean, assuming that there is no other stronger measure to be introduced.

602. I am saying that assumption is perhaps not too reasonable or even valid? - *(Mr Ong Lay Khiam)* It might be so.

*Chairman*

603. Thank you very much? - *(Mr Ong Lay Khiam)* Thank you.

*(The witnesses withdrew.)*

Paper 55 - Dr Phang Sock Yong, Lecturer, Department of Economics and Statistics, National University of Singapore, was examined.

*Chairman*

604. For the record, could you state your name, address, occupation, organisation and your citizenship? - (*Dr Phang Sock Yong*) I am Phang Sock Yong. My address is Raffles Hall, NUS. I am a lecturer at the Department of Economics, NUS. I am a Singaporean.

605. Dr Phang, you have submitted a very long and detailed paper which goes into fairly rigorous economic analysis of PARF, car ownership and so forth. Could you briefly explain to us what your views are on PARF in so far as its effect on the decision by car buyers in purchasing a car? Has it led car buyers to view a car as an investment? - (*Dr Phang Sock Yong*) May I use the overhead projector?

606. Yes? - (*Dr Phang Sock Yong*) At present, the PARF system has resulted in an artificially inflated price for scrap cars. The maximum price that someone who is contemplating to buy a new car is willing to pay for a scrap car is equal to the ARF rate minus the PARF rate, multiplied by the price of his new car which is the exchange rate times the price of the new car in foreign currency. If the market scrap car price happens to be higher than this maximum price, then the new car owner will simply pay the ARF price. As to why the car has been an investment good in Singapore, first there is the PARF system. The ARF rate has been increased on three occasions since 1975 from 100% to 175%. Over the same period, the PARF rate has only been

increased once. From 1975 to 1983, it remained at 0.4 for 1000 to 1600 cc cars. In 1983, it was increased simply by 10 percentage points. Over this period, the difference between the ARF rate and the PARF rate has increased. This has partly resulted in the car being an investment good for Singaporeans. Whenever the ARF is increased without an equal increase in the PARF rate, existing car owners enjoy a windfall gain from the Government.

607. In your equation you showed that the exchange rate is also a factor? - (*Dr Phang Sock Yong*) Yes. In fact, it is my contention that the appreciation of the Japanese Yen has been the single most important factor for the car being an investment good during the past six years. During this period there has been no increase in the ARF rate. More than three-quarters of our cars in Singapore are imported from Japan. Between 1984 and 1988, the Japanese Yen appreciated by 75% against the Singapore dollar, and this has been the most important factor for the car being an investment good.

608. Can I paraphrase you to be saying that although PARF has helped to make the car an investment good, it is not really that significant compared to the exchange rate? - (*Dr Phang Sock Yong*) Yes.

609. It is really the exchange rate? - (*Dr Phang Sock Yong*) In particular there has not been any increase in the ARF rate since 1983.

610. Do you think that too much emphasis has been placed in public discussion on PARF as a contributor to the car being an investment good when in fact it should have been directed at the currency over which we have no control? - (*Dr Phang Sock Yong*) Yes. The price of a brand new Toyota Corolla 1.6 was \$38,000 in 1984. At present, the same model sells for \$61,000. This price increase has been largely due to the appreciation of the Japanese Yen. The Yen price has not increased very much over the same period.

611. Can I move on to the next question? If PARF were to be scrapped, abolished, what do you think would be the effect on the total car population in Singapore? Would it go up or would it go down? - (*Dr Phang Sock Yong*) It would increase car ownership.

612. Could you explain how you arrived at this conclusion? - (*Dr Phang Sock Yong*) When analyzing the effects of removing the PARF, let us begin with the assumption that there is no increase in the ARF rate when the PARF is removed. Removing PARF will increase the prices that car owners will have to pay for a new car as they can no longer enjoy the discount. At the same time, it will cause the prices of used cars to decrease, particularly for cars that are approaching 10 years of age, as their prices are being artificially inflated by the PARF system. What is the overall effect on car ownership? In 1988, the new car market comprised 11%, whereas the used car market comprised 89% of the market. Of new cars purchased, already more than half were being purchased at ARF prices.

Less than half of new cars were purchased using the PARF. The effect of PARF removed on the number of new cars purchased will not be very great. The increase in the price of new cars will not decrease the demand for new cars significantly. In fact, my hypothesis is that the demand for new cars is rather price inelastic. Even if they have to pay the ARF price, the purchasers of new cars will not be significantly deterred. However, at the other end of the market, ie the market for cars that are above 10 years of age, since the prices of used cars have now decreased, there will be an increase in the number of buyers of old cars. The net effect will be an increase in car ownership and an increase in the average age of cars on the road.

613. Will the scrapping of cars lead to some wealth lost for the present owners of second-hand cars? - (*Dr Phang Sock Yong*) If there is no other accompanying measure, then there will definitely be an equity cost.

614. If I may summarise the three points you made, correct me if I am wrong, scrapping PARF will do a number of things. Scrapping PARF will not affect very much the view of the car as an investment good because in the past it has been the currency that has been the main factor. Scrapping PARF will increase the car population? - (*Dr Phang Sock Yong*) Yes.

615. Which presumably would lead to more congestion on the roads. Thirdly, scrapping PARF will lead to a wealth lost for a large number of people for whom the scrap value is now higher than its natural market value. There will be three



*Chairman (cont.)*

results of scrapping PARF? - (*Dr Phang Sock Yong*) Besides the wealth effect (the equity implications), there may be some repercussions for the financial sector, but I do not think that they will be very major. The burden of it will be borne by existing car owners.

616. You also stated that if the ARF were to be increased at the same time as the scrapping of PARF, the result could be different. How would it be different? - (*Dr Phang Sock Yong*) Increasing the ARF rate at the same time that PARF is scrapped would increase the price of used cars simultaneously. And that would reduce the equity effects and at the same time reduce the effect on car ownership.

617. What do you mean by "reduce the equity effects"? - (*Dr Phang Sock Yong*) An increase in the ARF rate implies that the value of used cars would increase as well.

618. I see. In other words, it would mitigate the loss of the used car owners if ARF were to be increased at the same time as PARF is scrapped. Before I leave off, can I ask one last question? You have an equation in your submission to show the elasticities of demand for usage and for ownership of cars. Can you elaborate on that a little bit? In other words, the effect of car usage measures as compared to the effect of car ownership measures. You have a conclusion in your submission relating to that on the relative effects of the two. Can I refer you to page 9 of your submission "An aggregate model of car ownership"? - (*Dr Phang Sock Yong*) In the demand equation for car ownership -

619. Yes, car ownership. In this equation, you say that the demand for car ownership is affected by prices of cars as well as by the usage cost. Can you explain that equation? What is your conclusion from your statistical study? - (*Dr Phang Sock Yong*) That both the price and the usage cost apparently did not have a very major effect on the decision to own a car. The major factor influencing car ownership was increases in the per capita income of the population. That has been the most important factor.

*Mr Chiam See Tong*] Dr Phang, I am intrigued by this equation. To own a car, it depends a lot on human factors, things like their needs or desire or aspiration to own a car. You have reduced the ownership of a car into an equation. How accurate is your equation?

*Chairman*

620. You should not ask an economist such a question? - (*Dr Phang Sock Yong*) There are many factors. The car is indeed a prestige symbol, a status symbol. These factors are very much related to the income of the population. Hopefully, that is captured in the income variable.

*Mr Chiam See Tong*

621. I know. According to your equation, finally you have come to the conclusion that the factors which are most important are incomes and the length of the roads. How accurate is this? - (*Dr Phang Sock Yong*) If you look at the  $R^2$  for the equation it is 0.9.

*Mr Chiam See Tong*] I would not understand the equation.

*Chairman]* Maybe I could help. It means that it is a very good fit. So it is quite accurate.

*Mr Chiam See Tong*

622. Plus or minus 5% or 10%? Or less than that? 2%? - (*Dr Phang Sock Yong*) There is a very high F-value and if you notice the T statistics are all significant.

623. That means nothing to me? - (*Dr Phang Sock Yong*) The equation is fairly accurate.

624. It is fairly accurate. That is good. In other words, as long as the country is doing well, as long as the incomes are rising, inevitably the car population will also rise? - (*Dr Phang Sock Yong*) Yes.

625. So this is the main contributory factor? - (*Dr Phang Sock Yong*) Incomes, yes.

626. In other words, what you are trying to say is, whatever measures the Government put on, the car population will always increase as long as people's income increases. Is that right? - (*Dr Phang Sock Yong*) No, that is not true. As you will notice, the other factors are also significant in explaining the car population, the cost of car ownership and the price of cars.

627. But according to you, those are not significant, one to one? - (*Dr Phang Sock Yong*) Not that they are not significant. But they are less important than the income variable.

628. That is right. So whatever the price of cars, as long as people can afford it, people will buy. That is what you are

saying, are you not? (*Dr Phang Sock Yong*) Then that has to be counteracted with price or other measures.

629. But according to your equation, this seems to be the situation, is it not? - (*Dr Phang Sock Yong*) My equation shows that as incomes increase, the Government will face a more difficult problem in trying to control car ownership.

630. That is right. So as long as people are earning money, there is a great problem trying to curb the car population? - (*Dr Phang Sock Yong*) Yes.

*Chairman]* Mr Chiam, maybe I could help by highlighting page 10 of the submission in which Dr Phang has translated into ordinary language the meaning of the equation. Paragraphs 2 and 3 state:

'A one percent increase in the price of cars (LPRICE) will lead to a decrease in car ownership per capita by 0.45% of 1 percent.'

'In contrast, .. a 1 percent increase in LYD (income) will cause a rise in car ownership of almost 2 percent ...'

In other words, a 1% increase in income will result in 2% increase in car ownership, whereas 1% increase in price decreases by only less than half percent. It does not mean that price has no effect. It is not as powerful an effect as income.

*Mr Chiam See Tong*

631. That is right, not as significant. According to all your variables, income would appear to be the most significant factor? - (*Dr Phang Sock Yong*) Yes.

*Dr Wang Kai Yuen*

632. Mr Chairman, since you are talking about the equation, may I come in as well. Because in the same-equation, Dr Phang has shown that the total length of roads would also cause a similar increase in car ownership. In other words, 1% in the increase of road length would also contribute to a 2% increase in the car population. In other words, Dr Phang is saying that as Government builds more road, we are also contributing to the car population? - (*Dr Phang Sock Yong*) There is the need to build more roads because of our satellite town policy. Over the past decade, the construction of expressways, for example, has increased tremendously. Over this period, there is therefore an increasing need to travel from the new towns to the town centre to work and for other purposes. Because the construction of expressways has reduced the time cost of travelling, it has also encouraged people to purchase cars to cut down their commuting time.

633. I understand that but I am driving at what is the cause and effect. Is the increase in roads causing greater car population or is it just because it is the other way round? From the equation, it is hard to tell which is the cause and which is the effect? - (*Dr Phang Sock Yong*) The increase in the length of roads has been a result of the need to commute from new towns to the town centre. That itself has increased the demand for car ownership because there is now a need to commute greater distances either to work or for other purposes.

*Mr Ng Pock Too*

634. Dr Phang, I would like to commend you on your very good submission.

It is very analytical and for those who are numerate, I think you have given us a very lucid picture of the dynamics of the pricing mechanism in formulating measures to control the car population. I would like to take you up on one point that you mentioned in your submission and, that is, under situations of constant demand for car ownership, PARF has the same effect as the quota system where there is a substitution effect of one-to-one exchange. And you mentioned that with the situation in Singapore where we have rising incomes and therefore the increasing demand for car ownership, that perhaps we should also take a look at controlling the car population by a quota system rather than by a pricing system. To be fair to you, you mentioned that this requires further study. But I just like your thoughts on this because a quota system is quite dramatic and it is a drastic change from the present system that we currently have. And there are pros and cons of introducing either the pricing system or the quota system where we fix the maximum tolerable number of cars that we need to have each year. I want your views on whether or not it is really in our interest to be switching over to a quota system, as you have mentioned here in your last paragraph? - (*Dr Phang Sock Yong*) I mentioned that the implications of imposing a quota system require further study and I am not about to recommend it. My views are that if the concern is that the car has become an investment good, a quota system will further contribute to the car being an investment good. As incomes increase and bids for car licences increase with each year the car will be an investment good. A quota system may also result in

speculation in the car market. You may have speculators who will bid for cars thinking that they can re-sell it at a higher price. There will be equity considerations as well.

*Mr Ng Pock Too*] To the consumer, ie, to the potential car buyer, there exists the uncertainty under the quota system that you may or may not get a car at whatever price you pay. Is that true? Under the quota system, once a fixed number of the upper limit of the car population is reached in a particular year, then no one else can own an additional car. This is the effect of the quota system.

*Chairman*] Except by buying a scrap car.

*Mr Ng Pock Too*

635. Of course, except by the scrap car method? - (*Dr Phang Sock Yong*) Yes, there is the uncertainty and for those who really want to own a car; they will then simply submit a higher bid. The price will fluctuate from year to year depending on demand.

636. But is that a desirable thing to have? - (*Dr Phang Sock Yong*) It will result in uncertainty in the market. I do not think that that would be desirable.

637. On balance, you would prefer a continuation of the existing system which really allocates based on the pricing system? - (*Dr Phang Sock Yong*) Yes.

638. You would prefer it that way? - (*Dr Phang Sock Yong*) Under the quota system, there may be people who are saving for a car and every year they find that a car is out of their reach because the price increases unpredictably each year.

In that case, it might result in a lot of frustration for potential car owners.

639. Would the quota system not enable the Government to have better planning parameters because then you will know each year the maximum number of cars we can tolerate on our roads? - (*Dr Phang Sock Yong*) Yes. But the benefits will have to be weighed against the cost of imposing such a system. The Government may target at a level that is perhaps too low, that is, below the optimal level of car ownership. That is also a potential problem.

*Dr Augustine Tan*

640. But whichever way you approach the question, if you have a pricing system approach as at present, and if the outcome of that is that the rate of growth of the car population is higher than what the Government deems desirable, then this will prompt an increase in ARF prices which will then bring the rate of increase down to what Government thinks is tolerable, say, 4%. Alternatively, the Government could set 4% as the quota and achieve its desired effect. So you get the same outcome in terms of windfall gains to present car owners, would you not? - (*Dr Phang Sock Yong*) Yes.

641. You cannot have your cake and eat it at the same time. May I take you back to your point earlier about the PARF system that if you scrap it, the number of cars will rise. I think that is contingent upon an assumption that the people who are now buying on a PARF basis, ie, giving a scrap car for a new car, about 10,000 of them, the question is whether these are people who never own

*Dr Augustine Tan (cont.)*

a car before and just bought a scrap car for the occasion or they are previous car owners. Have you got any data on this? - (*Dr Phang Sock Yong*) No, I do not have the data.

642. Therefore, it is an assertion that scrapping the PARF will raise the number of cars on the road. I would like to put a contrary assertion to the extent that many of these people who use the PARF system right now to buy a new car are present owners of cars. The fact is that scrapping the PARF will lead to a lowering of used car prices that they may not actually buy a new car. Let us say, if I own a nine-year old car today, because of the high scrap value, I can sell it for a higher value and therefore I can afford to buy a new car. You scrap the PARF, my car value goes down. I make my calculations and say, "Look. It is going to cost me too much to buy a new car. I will keep my car." Instead of the car population going up, it does not, but stays the same? - (*Dr Phang Sock Yong*) But at the other end of the car market where you have new car buyers, my hypothesis is that the demand for buying a new car is fairly inelastic. They will continue to buy new cars and sell their existing cars.

643. That is why you need data whether those who buy on a PARF basis right now, or on a scrap car basis, are present owners or they are new owners. I take your point that if they are new owners, the difference is not going to be great enough. They will still buy the new car. But if they are present owners, the fact that their present car has gone down in value will affect them. I have got one more point. You made a very important

point that measures to curb car usage by increasing motor-car operating costs will not be effective without complementary policies to curb car ownership. Everybody who comes before the Committee is in favour of using car usage measures to control the car population rather than car ownership. But in your findings, as long as people already own their cars, increasing the operating costs on motor vehicles by petrol taxes or car parking charges and so on are not going to deter car ownership very much. Would you like to comment on that? - (*Dr Phang Sock Yong*) For a car owner, the capital cost of acquiring a car has already been made. These measures to increase the cost of car usage will not affect him very much and, as I have shown in my analysis, car usage measures will have very little effect on car owners.

644. Except making them frustrated, angry? - (*Dr Phang Sock Yong*) Yes, but they will continue to use their cars. I think measures to curb car usage will have to start at the car ownership level.

*Mr Lim Boon Heng*

645. But surely that cannot be a general statement because the ALS scheme shows that you can change people's travelling patterns with the ALS scheme. Is that not so? Does that not contradict your finding? - (*Dr Phang Sock Yong*) My finding was based on the cost of car usage, ie, simply the petrol cost and parking cost. I did not take into account the ALS cost. At that level, the price of car usage is fairly low and will not affect car owners very much. But if the price of car usage is increased, you might have a different set of parameters.

*Dr Augustine Tan*

646. Am I right in assuming that the ALS scheme has resulted more in diverting traffic time-wise and space-wise rather than in terms of causing car owners to substitute their mode of transportation? - (*Dr Phang Sock Yong*) I do not have the data on that. But I would think the evening ALS, in particular, has resulted in a substantial rescheduling cost.

*Chairman*

647. Dr Phang, can I come back to this question of car usage measures and the effect on car ownership and usage? Where in your equation is the variable for cost of car usage from which you drew the conclusion that car usage measures are not effective? I see only the cost of car ownership? - (*Dr Phang Sock Yong*) I am not referring to that model. I am referring to the model on -

648. Which page, please? - (*Dr Phang Sock Yong*) Page 18.

649. Demand elasticities? - (*Dr Phang Sock Yong*) Yes.

650. From where were these elasticities derived? Was it from your original regression equation? - (*Dr Phang Sock Yong*) This is a different kind of model.

651. A separate study? - (*Dr Phang Sock Yong*) This is a study that was based on about 6,500 work trips that were made in 1981. We analyzed mode choice for these work trips based on a comparison of the time and money costs of using the auto as compared to using the bus.

652. Which table are you looking at, table 6 or 7? - (*Dr Phang Sock Yong*) Table 7 is an interpretation of Table 6.

653. Could you explain what "1 minute decrease in auto in-vehicle time" means? What does that mean? Or "10 cents increase in parking costs" results in what? - (*Dr Phang Sock Yong*) A 10 cents increase in parking costs would have no effect on the mode choice of workers from car-owning households.

654. It will have no effect? - (*Dr Phang Sock Yong*) They will continue to use their cars.

655. But 10 cents is a rather small amount, is it not? - (*Dr Phang Sock Yong*) Yes.

656. So can we really extrapolate from a survey that says that a 10 cents increase in parking charges will not affect car ownership which I think we all know without doing a statistical study? Can we extrapolate from that to the assertion that car parking charges have no effect on car usage? - (*Dr Phang Sock Yong*) No, you cannot. The elasticity is -0.002. It is not zero. If there is a larger increase you may find that there is an effect.

657. Would you agree that maybe you need a more extensive study on this? It seems that the data is a little bit thin on which to base that conclusion? - (*Dr Phang Sock Yong*) Yes.

658. You agree that it should be looked at further? - (*Dr Phang Sock Yong*) Yes.

*Dr Wang Kai Yuen*

659. Dr Phang, when I spoke earlier, I did not take the opportunity to compliment you and your paper as well. Of all the submissions we have received, I think your submission must be almost the

*Dr Wang Kai Yuen (cont.)*

best presentation we have come across or at least I have come across. In fact, I would recommend that most people who want to participate in a debate on car population should have an opportunity to read your paper first. In other words, it is required reading for all students. In your paper you have also made certain assertions which I find very interesting. On page 11, you said that "housing consumption as a venue of 'appropriate spending behaviour' is not available to 87 percent of the population" and therefore your conclusion is maybe expenditure on a car is a manifestation of that spending behaviour and, as such, in Singapore most people would ultimately buy a car. Is that a correct assumption? - (*Dr Phang Sock Yong*) That the car is a prestige symbol.

660. You think it is a prestige symbol or it is just an avenue for what you call 'appropriate spending behavior'? - (*Dr Phang Sock Yong*) This 'avenue for appropriate spending behaviour' is the same idea as that of a car being a prestige good.

661. But in your sentence, you also said that over time this becomes a hardened habit. So it is no longer a prestige but becomes a necessity? - (*Dr Phang Sock Yong*) Yes.

662. What will be your recommendation on housing consumption? Shall we create an avenue for people to spend more money in housing and therefore reduce the load on the car population? - (*Dr Phang Sock Yong*) That implies looking at the overall household consumption pattern. It is true that housing

in Singapore is very cheap as compared to any other city in the world and that implies additional money for expenditure on other goods.

663. But that comment is probably true for people living in HDB flats. It cannot be true for, people staying in private residential estates? - (*Dr Phang Sock Yong*) No. But already 87% of the population reside in HDB flats whereas about one-third of the population belongs to car-owning households.

664. In our discussion and also in your paper discussing the removal of PARF system, you have also asserted that the removal of the PARF system must be accompanied by a replacement system where a progressive tax on cars older than 10 years should be implemented? - (*Dr Phang Sock Yong*) Yes. If the PARF system is removed, then you will be encouraging people to keep their cars for a longer period. The average age of cars on the roads will increase.

665. I understand that. As I said to another representor, the PARF system, the control measure introduced by Government, is to keep the car population young. And that policy is not being debated nor will it be scrapped in that sense. So the removal of PARF will have to be replaced by some substitute measures. One of the measures you have recommended will be a progressive road tax system. If that is implemented, may I say that perhaps your earlier assertion that the car population will increase with the removal of PARF may or may be not true? - (*Dr Phang Sock Yong*) Yes, that is true. I was analysing the removal of the PARF in isolation. To mitigate the

effects, there must be additional measures. But I would like also to recommend that if the PARF system is retained, then future increases in the ARF must always be accompanied by equal increases in PARF rates so that there is no windfall gain to existing car owners.

666. In your equation that you have shown us earlier and also in your assertion now, if that were the case, in other words any increase in ARF is accompanied by a corresponding increase in PARF, would fluctuation in exchange rates that we have experienced in the past continue to be a major contribution? - *(Dr Phang Sock Yong)* Of course, because Singapore is an open economy.

667. Which factor will be higher in terms of contribution factor to the car being an investment? - *(Dr Phang Sock Yong)* If the ARF increases are tied to PARF increases, then there will be no -

668. There will still be because in your equation the multiplier is the exchange rate. If the exchange rate changes, the quantum, the amount, will continue to change as well? - *(Dr Phang Sock Yong)* Yes.

*Dr Augustine Tan*

669. But the question is whether you are going to get exchange rate changes of the same order of magnitude or whether that was a very rare adjustment? - *(Dr Phang Sock Yong)* The exchange rate is beyond our control.

*Dr Augustine Tan*] I mean the very big jump in terms of the Yen appreciation is not likely to be repeated.

*Dr John Chen Seow Phun*] Nobody knows!

*Chairman*

670. I think her point was that that big jump was what was really contributing to the car being an investment good and not so much of PARF. Can I ask you one final question? How would you view a scheme whereby PARF is not scrapped, is not abolished for the present car owners, but new car owners who come in to the market will not have the residual value on the new cars they buy, that is, you abolish it for the new cars but do not abolish it for the used cars? - *(Dr Phang Sock Yong)* I think that your suggestion is a good transitional provision because you reduce the equity cost on existing car owners and at the same time you remove the PARF system.

671. In other words, you do not victimize the present owners but you do take away whatever contribution PARF makes to the car being an investment good? - *(Dr Phang Sock Yong)* Yes. And that would go a long way in simplifying our present, very complex, car taxation, system.

*Dr John Chen Seow Phun*

672. How many years would that take to remove all the old cars which are available for PARF off the road? 10 years? I just want to ascertain one point about the effect of scrapping PARF on the car population. In any car market, the growth of the car population is due to the newcomers into the market. Am I correct to say that? - *(Dr Phang Sock Yong)* Yes.



*Dr John Chen Seow Phun (cont.)*

673. In the Singapore context, when the price of a new car is so high, may I have your opinion whether people who come on to the market are largely people who buy old cars or new cars? - (*Dr Phang Sock Yong*) I do not have the data.

674. In the Singapore context, what is your gut feeling of the marginal buyers or people who have not owned a car before, people who are starting a job career, and want to buy a car? The reason why I ask is that if you scrap PARF, you say the price of old cars will drop drastically, and therefore if most of the newcomers are people who buy old cars, I am quite certain that you are right in that the car population will increase. But if it is not, then perhaps Dr Augustine Tan has a point that it may not cause any increase. So I think it is important to ascertain whether the car population, as a whole, will increase. Am I right? - (*Dr Phang Sock Yong*) Yes. But I think it may be evenly spread out. And moreover, there are considerations of a car being an investment good as well. So it depends on the budget of the household, how much capital outlay they wish to make for a car which will vary with the income of the household.

*Encik Yatiman Yusof*

675. Dr Phang, I just have one question to ask. I share the observation made by my colleague, Mr Ng, that you made very constructive and some provocative findings in your submission. On page 17, you highlighted that:

'Mode choice for workers from auto-owning households is elastic with respect to income and public transport times and costs, but [I emphasise] inelastic with respect to auto operating costs.'

Are you implying that measures taken to curb car usage are ineffective or less effective? - (*Dr Phang Sock Yong*) They will be less effective.

676. Not ineffective? - (*Dr Phang Sock Yong*) They will be less effective.

Chairman

677. Thank you very much, Dr Phang, for your very useful submission. I realize that the paper you have written is subject to further research and refinement. Would you have any objections if we distribute it at this time to enable members of the public to better understand the hearings we had this morning? - (*Dr Phang Sock Yong*) No.

678. You have no objections. Thank you? - (*Dr Phang Sock Yong*) Thank you.

*(The witness withdrew.)*

MINUTES OF EVIDENCE

251

3 NOVEMBER 1989

252

Paper 37 - The following representatives from the Singapore Secondhand Motor Vehicles Dealers Association were examined:

Mr Lim Hong Koon, Vice-Chairman

Mr Simon Tan, Secretary

Mr Hee Jau Yong, Secretary, Sub-Committee

---

Interpretation assisted by Mr Sung Ekee and Mr Lee Hui Huan.

---

*Chairman*

679. Gentlemen, for the record, could you give us your names, occupations, addresses, organisations, and your citizenship status? - (*Mr Simon Tan*) We are from the Singapore Secondhand Motor Vehicles Dealers Association. My name is Simon Tan. He is Mr Lim Hong Keen and he is Mr Hee Jau Yong.

680. Your address and your citizenship? - (*Mr Simon Tan*) I am staying at 85, Toh Yi Drive, Singapore 2159. (*Mr Lim Hong Koon*) I am staying at 36 Cedar Avenue, Singapore 1334. (*Mr Hee Jau Yong*) My name is Hee Jau Yong. I am staying at 33 Carmen Street, Singapore.

681. Your citizenship? - (*Witnesses*) All of us are Singaporeans.

*Mr Lim Boon Heng*

682. Gentlemen, you argue very strongly for the retention of the PARF scheme. Can you very briefly summarise arguments for the retention of PARF? - (*Mr Hee Jau Yong*) Can I speak in Mandarin?

683. Yes? - (*Mr Hee Jau Yong*) (In Mandarin) The purpose of our submission to the Committee is to contribute our views for the improvement of land transportation in Singapore. We feel that the PARF scheme should not be abolished. In our recommendation, we examined the effectiveness of the PARF system and we have cited some examples showing the effectiveness of the PARF scheme. From 1975 up to 1988, a total of 147,856 old cars had been scrapped. If there had not been the PARF system, we could imagine how chaotic the situation would have been. There would be some 147,000 old cars on the road, causing a lot of congestion to our traffic system. The second point is, with the PARF system we have managed to scrap a great number of old cars from the roads. This has greatly reduced our car age and the instances of traffic congestion caused by old cars breaking down blocking traffic on the roads. We feel that the PARF system is consistent with the two main objectives of the Government's land transportation policy in Singapore, namely, to curb the increase in the total number of cars in Singapore and, secondly, to keep down the age of our cars so that we do not have too many old cars on the road which may break down

*Mr Hee Jau Yong (cont.)*

and cause traffic jams. We feel that the PARF scheme has worked very well and it has achieved effectively these two objectives. In our representation, we have shown that from the ROV Annual Report the PARF has been a very effective system. We have also brought up the subject as to why the PARF scheme did not seem to be effective in 1988 and 1989 and we feel that there were some external and internal factors which contributed to this phenomenon. We also presented an analysis of the effectiveness of the PARF system for the next three to five years before the road pricing system is to be fully implemented and if it should be abolished we concluded that the PARF system would be more effective and would curb the car population. Finally, we made some suggestions as to how to make the PARF system more effective and also the after-effects in the event of the abolition of the PARF scheme. Our whole representation basically revolves around these points.

*Mr Lim Boon Heng*

684. Do you agree that setting the PARF value at 10 years artificially props up the price of second-hand cars before the age of 10 years? - (*Mr Hee Jau Yong*) We do not agree that the PARF scheme is the main factor causing second-hand car prices to be increasing all the time. Because when we buy a car there is always a resale value on the car whether or not it is eligible for PARF. As we have stated in our submission, there were some factors which resulted in the increase of scrap car prices, such as in 1988 there were first, the rising value of

the Japanese Yen and, secondly, a short supply of scrap cars.

*Dr Wang Kai Yuen*

685. Mr Hee, when the Government implemented the PARF scheme in 1975, the Government had as its main objective the reduction of the age of cars on the road and not the curbing of the number of cars. There were two options. First, the PARF scheme was to encourage owners to change to new cars. Second, it was possibly a fiscal measure to make it more and more expensive to own a car; just as what you have suggested in your representation, such as double road tax, 6-monthly inspection, etc. These measures, when implemented, may achieve the same effect. Don't you agree? - (*Mr Hee Jau Yong*) We do agree that the main objective of the PARF system when it was implemented in 1975 was to lower the age of the car population in Singapore but the beautiful part of this system is that it has also brought about a curb in the total number of cars in Singapore which has been the main cause of traffic congestion. Therefore the PARF system should be retained. It has worked beautifully during the last 5 years or so from 1980 to 1984. From the statistics of the ROV, we noticed that there are some 120,000 cars available for scrap. In the next three to five years, if we are to abolish the PARF system, there will be these 120,000 old cars which will be running on the roads and this will certainly contribute to traffic congestion. This I think the Committee will have to consider.

686. I agree that the beauty of the PARF scheme is that its secondary effect

is it also achieves the curbing of the population. But, on the other hand, it has also brought about an undesirable side effect, that is the prices of second-hand cars have become much higher than what they were originally worth. Maybe you have got to re-examine the PARF system? - (*Mr Hee Jau Yong*) (In Mandarin) In answer to Dr Wang's second question, we feel that whether buying a car is a form of investment or not depends on its price. If you put more taxes on the car, it will become more expensive. Some people will then develop the "investment" mentality wanting to buy a car. Because when the car prices keep going up, they will think in this way: If I do not buy a car today, I will never be able to afford to buy a car. Many people will then think: I have to buy something to hedge. I have to catch the opportunity to buy a car while I can still afford to do so. Buying a car is actually not a form of investment. Its increasing price is due to rising value of Yen. But if we look at the PARF system by itself, the PARF is a certain percentage of the ARF. So there is a margin, a difference between the PARF and the ARF. So there is a margin, a difference between the PARF and the ARF and the value of a scrap car will fluctuate within this margin. So a scrap car's PARF will never increase beyond the ARF price. So the Government can control the price level of the scrap cars by adjusting this margin, in so far as the PARF system is concerned. If the scrap car is so expensive that it will no longer be desirable for one to buy a new car by scrapping a car in order to register it on PARF system, many cars will then be sold on ARF prices. The second factor is one of

demand and supply in our market. We notice that in 1979 there was a short supply of scrap cars and as a result the scrap car value had gone up. And also in 1987 and 1988 when our economy picked up, there were more and more people buying new cars and people had difficulty in getting a scrap car. And that was the reason why the scrap car value had gone up by quite a lot. This is a law of supply and demand in the market. We do not see buying car as an investment. We can see that car prices fluctuate also according to Government measures implemented. We also do not want to see a situation where car prices keep on increasing or fluctuate wildly. We wish to see a stable market. If we look at people who deal in scrap cars, in 1985 one could pay only about \$5,000 to buy a scrap 1,300 cc car. And if he sold it to a buyer, he would make a profit of about \$200. But now for the same range, he would have to pay \$11,000 to \$12,000 for a scrap car. If he sold it for a profit, his profit would also be about \$100-\$200. So we don't see the car as good investment. As the cost is higher, the profit margin is very little.

*Dr Wang Kai Yuen* (In Mandarin)

687. Mr Hee, I think your worry is if the Government scrapped the scheme of PARF overnight, it would affect many people and secondhand car dealers would also be affected. Many people who own used cars will suffer losses because of drop in value. But, as mentioned earlier by the Chairman, if the Government scrapped PARF in respect of new cars, while used cars continue to enjoy PARF benefit, what do you secondhand car

*Dr Wang Kai Yuen (cont.)*

dealers think would be your reaction? - (Mr Hee Jau Yong) (In Mandarin) There is already rumours in the market as suggested by Dr Wang that for all the existing old cars, they will still continue to enjoy the PARF benefits and all the new cars registered after the abolition of PARF system will have no PARF benefits. That is why we see many new cars being registered nowadays as there will be a cut-off date. I think this is a reasonable or sensible suggestion to all concerned which will be more acceptable to us and to the car owners than scrapping PARF overnight. It will give us a clear direction as to where to go. As the value of the used cars depends on the PARF value, any sudden move against the PARF system will not be to the benefit of dealers or owners.

*Mr Chiam See Tong*

688. Mr Hee, you have argued strongly for the retention of the PARF. We can understand that. But assuming that the Government, despite your strong argument, wants to abolish PARF. In such a situation, what would your Association recommend the Government to take or what should the Government do? - (Mr Hee Jau Yong) (In Mandarin) I think we have already answered the question earlier. As far as our Association is concerned, we are suggesting that the PARF system should be retained. It will play a most effective role in the coming 3-5 years. To abolish it at this juncture is most untimely. But if the Government is determined to abolish this system, then our Association and most car owners would request that the Government give

us a grace period of say some 10 years to let the PARF be phased out gradually for the existing old cars and abolish it only in respect of new cars from an appointed date after a graduated phasing out period. So, if the abolition of PARF be carried out in this way it will be good to all concerned.

689. What about the finance companies? Do you have any recommendations in respect of the finance companies? I believe some of your secondhand car dealers also have got some connections with the finance companies in financing purchase of secondhand cars? - (Mr Hee Jau Yong) (In Mandarin) I believe the finance companies would accept Dr Wang's suggestion that the PARF system be cut off only in respect of newly registered cars. Because when the finance company grants a loan for the purchase of a car, it is based on its PARF value at the time of purchase, for a term of 3-5 years. So if it is made known to the public that the PARF system is going to be abolished from a certain date after a grace period then they would be prepared for this and they will be able to make adjustments accordingly during the period to ensure that they won't incur any loss from any loan.

690. If the PARF is abolished, then the finance companies will be more strict in giving out loans. Am I right? They will revert to the old days when they only allowed two years to pay up and with a heavy deposit. And that will keep down the car population? - (Mr Hee Jau Yong) I do not think I can speak for the finance companies. They must have some criteria and basis for granting loans and this is their business conduct. But I think

## MINUTES OF EVIDENCE

---

259

3 NOVEMBER 1989

260

---

the finance companies, if they know that the Government is going to abolish the PARF system, will then have to work on a new system. And then from there they will decide how many percent of a loan can be granted to the public. I do not think the finance companies will tighten up their loans. Because if they want more business, they can come up with more attractive loans.

691. Can I go back to your earlier point? You suggested a grace period of 10 years to phase out PARF car benefits. Assuming the Government says that that period is too long, what would be a suitable shorter period? - (*Mr Hee Jau Yong*) I think the shortest possible period

is probably five to six years. I think five years is probably sufficient because the maximum loan is for six years. By the time five years is reached, I think most of the loans would have been recovered by the finance companies. I say five years because by then you probably have the electronic road pricing system available on the roads. Five years is probably the shortest possible time. I do not know. I do not think I can speak for the finance companies. But I think that should be the right time.

*Chairman*

692. I think we have had an adequate discussion on this issue. Thank you very much? - (*Mr Hee Jau Yong*) Thank you.

*(The witnesses withdrew.)*

Paper 41 - The following representatives from the Vehicle Rental Association were examined:

Mr Eugene Lim, President

Mr Steven Oei, Vice-President

Mr Henry Lee, Secretary

Mr Steve Poh, Treasurer

---

*Chairman*

693. Gentlemen, for the record, could you please state your names, addresses, occupations and your citizenship status? - (*Mr Steve Poh*) I am Steve Poh, Branch Manager of SM Motor. I am staying at Block 118 Clementi Street 13, #13-87, Singapore 0512. I am a Singaporean. (*Mr Henry Lee*) I am Henry Lee. I am staying at Block 114, Lorong 3, Geylang. I am the Operations Manager of Hertz Rent-a-Car. (*Mr Eugene Lim*) I am Eugene Lim, President of the Vehicle Rental Association. I am from the company Elpin Tours. My address is 93 Faber Drive. I am a Singaporean. (*Mr Steven Oei*) I am Steven OED. I am the Operations Manager of Avis Rent-a-Car. I am the Vice-President of the Association. I am staying at No. 5 MED Hwan View #04-07, Singapore 2056. I am a Malaysian and a Permanent Resident of Singapore.

694. Mr Lee, you are a Singapore citizen? - (*Mr Henry Lee*) Yes, I am a Singaporean.

*Mr Lim Boon Heng*

695. From reading your submission, it appears that your support for the PARF scheme is because of business

reasons rather than the concern for congestion. How do you answer the criticism that your submission is too biased in terms of your concern for your business? - (*Mr Eugene Lim*) Being a trade association, we have to look into the interest of our members and, of course, not forgetting the national interest of the country as well. We feel that the support we have given to the PARF scheme will not actually conflict with the overall objective of traffic congestion, because the objective really is to curb usage rather than to curb ownership. We feel that our support for the PARF scheme will still not depart from this objective.

696. How do you think the PARF scheme has contributed to curbing usage? - (*Mr Eugene Lim*) I would not say that the PARF scheme has contributed to curbing usage. What I am trying to say is that in a sense it does not contribute to congestion. Because the PARF scheme allows for replacement of vehicle that is to be taken off the road and that is a kind of scheme that will contain the total number of vehicles on the road. We feel that the scheme has worked for quite a number of years and we feel very comfortable that this is a system that not only our trade, but perhaps other Singaporeans will also be able to get along without too much hardship.

697. But people have argued that the PARF scheme is losing its value because an existing car owner or vehicle owner can buy a new car at a lower cost because of the higher value of his old car. How do you argue against that argument? - (*Mr Eugene Lim*) Of course, the market values cannot be controlled to a certain extent. You cannot have everything perfect, in a sense. There is still the play of market forces on the second-hand cars and the scrap cars that will affect the ultimate cost of purchasing a new vehicle. But, of course, I feel there are other measures that can be implemented to moderate this to a certain extent.

698. What measures? - (*Mr Eugene Lim*) Like maybe lowering of the ARF.

699. Lowering of the ARF? Would that not have the effect of more people buying new cars at ARF prices? - (*Mr Eugene Lim*) Yes. But at the same time this can be counteracted with more measures on curbing usage. So that should act as a sort of a balancing control.

700. You are in favour of curbing the usage rather than ownership? - (*Mr Eugene Lim*) Yes. I think that is quite a rational approach to the situation.

701. But if a person already owns a car, do you think that he would stop using the car? - (*Mr Eugene Lim*) I think it is on a case to case basis, because there must be sufficient alternatives and options available to an individual or organisation to decide whether they want to continue using the car. If there are sufficient suitable alternatives and options, which are reasonable and practical -

702. Those are very general terms. What are your specific proposals? - (*Mr*

*Eugene Lim*) Maybe we can take into account, for example, our role as a car rental industry. We provide an alternative for motorists not to own a car, so that they can rent a car as and when they require, rather than to keep a car and only use it when they want it. In this way, the number of cars in the country can be cut down. We provide a sort of flexible arrangement for the transportation system.

703. Your answer is somewhat contradictory. You want curb on usage and yet you suggest that renting a car is an alternative for the people. We must get down to the basic of traffic congestion. What causes traffic congestion? Is it ownership or is it usage of the vehicle? - (*Mr Eugene Lim*) We believe it is usage.

704. If people, instead of owning their car, rent the car from rental companies, would that not mean that there is still congestion? - (*Mr Eugene Lim*) From our experience and our statistics, we know that rental cars are more popularly used during weekends and festive occasions. They use the car not necessarily to go into the city area, but to travel round to show the tourists the sight-seeing spots around Singapore or to go out. It is not necessarily in the city area itself. So we feel that the car rental companies provide the vehicle which would not increase congestion. Because congestion is mainly in the city area and during the working days.

*Mr Chiam See Tong*

705. Mr Lim, how do your rental rates in Singapore compare to those of the western countries? - (*Mr Eugene Lim*) Compared to western countries, the



*Mr Eugene Lim (cont.)*

information that we have shows that it is higher than western countries.

*Mr Chiam See Tong (cont.)*

706. Higher than western countries?  
- (*Mr Eugene Lim*) That is right.

707. Is it because of the reason that in your representation, you say that your Association has reservations on the ERP and its effects on rental cars? Is this why you are saying so, that it will increase your costs? - (*Mr Eugene Lim*) No, not in relation to the rental rates.

708. Your rental rates are already high. And if the ERP comes into being, then your cost to the customer would be higher? - (*Mr Eugene Lim*) Of course, yes.

709. Is that the reason why you have reservations on the ERP? - (*Mr Eugene Lim*) That is not the main reason. But that is also one of our reservations. Our main reservation about the ERP is basically on how we are going to charge the customer, because a lot of our customers are short term rentals and they depart from our country immediately after the rental. And we are not able to ascertain in advance, or at least immediately after the end of the rental, how much charges they have incurred. Because we believe the rates are going to be charged on per entry basis to certain areas of the city.

710. This is a special representation you have to make to the Government, unless they have such a technology in relation to rental cars, is it not? Otherwise it would be a problem for you? - (*Mr Eugene Lim*) Yes. That is why we have also expressed in our submission

one possibility of how this problem can be tackled. In our submission, we stated that perhaps there could be a computer terminal that would be linked up with our Association so that we can at any time be able to determine the charges that our rental vehicles have incurred.

*Encik Yatiman Yusof*

711. Mr Lim, while you agree that road congestion is mainly due to usage, you are also advocating for private car owners to rent out their cars on the ground that most of these users of rental cars are driving outside the peak hours and during weekends. But do you not have a big proportion of people, expatriates, people who are here on short term, renting a car and using it daily, including driving into the CBD? - (*Mr Eugene Lim*) Of course, there are various customers using the rental car for various purposes. There are those who use a car to go into the city.

712. What is the percentage like for city and non-city usage, roughly? - (*Mr Eugene Lim*) City and non-city, I would say that more than 50% is non-city.

713. That means about 50% of them drive into the city? - (*Mr Eugene Lim*) Because in the city there are sufficient alternatives like taxis and MRT, within a short distance which they can opt for. If they want to go to Jurong or they want to go to the industrial estates, or they want to visit sight-seeing spots like the Zoo, Bird Park or something, and they do not have a proper transport, that is when they come to rent a car.

714. But still close to half of those who rent cars are driving into the city? - (*Mr Eugene Lim*) No, it is less than half.

715. Less than half? (*Mr Eugene Lim*) Yes.

716. Is that figure of less than half not also significant in terms of contributing to road congestion in the city? - (*Mr Eugene Lim*) Considering the number of SZ cars in Singapore, I think it is insignificant because the total SZ car population is less than 2% of the total population of cars in Singapore. If you take less than 50% of this, it is an insignificant number.

717. But if you advocate for the use of private cars for rental purposes, though the percentage may remain the same, in absolute number it will increase. Would that not worsen the traffic congestion? - (*Mr Eugene Lim*) Although there would be an increase, in terms of proportion-wise, it will still be very small compared to the total number of cars going in and out of the city area.

*Dr Wang Kai Yuen*

718. Mr Lim, in your submission, you pointed out that the age of rental cars in Singapore is significantly higher than the age of corresponding cars in other countries. You also pointed out that this might project a negative image about Singapore being a progressive and advanced society. I would presume that the age is high because it is an interplay between ARF and PARF and other costs of operating a car. Does your Association have any proposal to submit to lower the age of rental cars? - (*Mr Eugene Lim*) We have recommended a proposal to give an incentive for earlier replacement of rental cars. This earlier replacement is to be applied for cars which are replaced in less than five years. As you know, the life-span of a rental car is seven years. And

we are saying that if there is an incentive to replace the car in less than five years, then rental companies will be attracted to replace their cars earlier and therefore this will increase the quality of cars on the road.

719. That is from your point of view. But from the traffic authority's point of view, perhaps early replacement will also contribute to an increase in the car population. Perhaps it is not so much the fiscal incentive. But if you view it from that point of view, do you have an alternative suggestion? - (*Mr Eugene Lim*) First of all, we do not think it will increase the car population.

720. Where will the used cars go to? - (*Mr Eugene Lim*) The old cars will be either scrapped or exported. If they are still new, of course, they can be exported. There are many countries which can accept second-hand cars which are up to five years. But hardly any country will accept cars which are more than five years old unless it is a very prestigious car like the Mercedes Benz. The other countries would not accept other types of cars. We are saying that if the car is less than five years, it can still be exported to another country.

721. Let us assume you operate under a system where all your cars must be exported. Will you be happy with it? - (*Mr Eugene Lim*) Under the present regulation, it has to be exported or scrapped. It cannot be converted for use in Singapore. (*Mr Steve Poh*) In other words, it is taken off the road. It is not in existence. Let us say, the old car is SZ 1. You replace it and it is off the road. It is no more in existence.

*Encik Yatiman Yusof*

722. Is it not true that the motive behind this proposal of shorter PARF for rental cars is that you can retain commercial advantage more than in reducing car usage because, generally, rented cars are more frequently used? Hence the wear and tear is higher than private cars. Therefore, the resale value, even if it is exported, will be much lower. So your proposal is aimed at retaining that marketability of the car rather than reducing congestion. Is that true? - (*Mr Eugene Lim*) What you say is true. But we are more concerned with maintaining the quality of the service and in the

hardware that we provide to the customer. We have so many modern facilities in Singapore - hotels, restaurants, transportation system, and so on. But when it comes to rental cars, we are worse than even the Third World countries because we are not able to replace these cars more frequently. We feel that something must be done to improve this situation.

*Chairman*

723. Thank you very much, Mr Lim and your team? - (*Mr Eugene Lim*) Thank you.

*(The witnesses withdrew.)*

Paper 50 - Mr Simon Lau Pak Wai of 20 River Valley Grove #08-00, Singapore 0923, was examined.

*Chairman*

724. Mr Lau, for the record, could you state your name, address, which organisation you work for, your occupation and whether or not you are a Singapore citizen? - (*Mr Simon Lau Pak Wai*) My name is Simon Lau Pak Wai. I am living at No. 20 River Valley Grove. I am a Singaporean. I am a businessman and I am representing myself on the land transportation policy.

725. And your citizenship? - (*Mr Simon Lau Pak Wai*) I am a Singapore citizen by birth.

726. Mr Lau, you have taken strong stand by saying that you do not like to see, further increases in car ownership? - (*Mr Simon Lau Pak Wai*) Yes, that is if we are thinking in terms of controlling the car growth. There is a Chinese saying which says that you do not just cut the grass but you pull it out with the roots. That is why I said there should be a proper control over cars rather than keep on implementing taxes here and there.

727. May I ask if you own a car? - (*Mr Simon Lau Pak Wai*) I own a car.

728. Do you intend to retain your car? - (*Mr Simon Lau Pak Wai*) In my letter, I said that I would like to extend it to 15 years, and if that is given, then I would retain my car to that age.

729. At the same time, you do not want any car increases? - (*Mr Simon Lau Pak Wai*) Yes, that is right.

730. Supposing you do not own a car today. Would you hold the same view? - (*Mr Simon Lau Pak Wai*) I will still hold the same view. If we talk about the principle and if you seriously think of controlling it, it will have to be from the roots onwards.

*Dr John Chen Seow Phun*

731. Why do you say in your beginning statement that you would like the Ministry to consider curbing car ownership rather than usage? Why do you say that? What is the advantage? - (*Mr Simon Lau Pak Wai*) We are now generally talking about congestion on the road and car growth. If you seriously think of controlling it, you must start from the beginning rather than on the usage. You must start from the beginning, ie, on ownership. Right now, with the present high parking charges, yet the cars keep on increasing. That is to say the measures are practically not effective enough.

732. But congestion is also caused by usage. Do you agree? - (*Mr Simon Lau Pak Wai*) I agree that it is caused by usage. If people do not buy a car and they do not have a car, they would not be using it. There is no point in buying a car if you ask me to keep it and use it during the weekends. If I have a car, why should I keep it? I might as well use it. If people do not own it, they do not use it. If they do not use it, the roads will not be congested.

733. You think that we should just go on car ownership restraint and forget

*Dr John Chen Seow Phun (cont.)*

about the usage. Is that what you are thinking? Or should we do both? - (*Mr Simon Lau Pak Wai*) Effectively, both can come together, if you are thinking in terms of 100% effectiveness. Generally, I am saying that ownership is the main problem rather than usage.

734. You also proposed to increase the number of years for PARF to 15 years. At the same time, you are talking about car ownership control and car population control. By increasing the number of years from 10 years to 15 years, do you think it will actually increase or decrease the car population? - (*Mr Simon Lau Pak Wai*) That is why in my letter I said that if you keep the PARF to 15 years that is one incentive. But the disincentive is that you have to make the car a very expensive item so that you cannot own it. After a certain time, 15 years, if you scrap it, you will have the benefit of lower import tax. Then you will keep the car. That all comes in together with import duty and incentive. After 15 years when you scrap your car, you will get less import duty and you will be paying a cheaper car price by then if you want to scrap it. That is when the car growth will become constant.

735. Why do you discriminate against bigger capacity cars by saying that for bigger capacity cars, such as those above 1,600 cc, you must scrap two cars and so on? - (*Mr Simon Lau Pak Wai*) I am not discriminating against the bigger capacity cars. Let us say, you want to implement the import duty at a high level to 300%, 400% or 500%. The big capacity cars will be very expensive and maybe it will cost half a million dollars or so. If you have

the privilege of scrapping two cars and get the import duty to come down to 20-40%, then you find the saving is there. I am doing this simple calculation of high price and incentive of keeping it for scrap.

*Dr Augustine Tan*

736. Are you aware that if you increase the import duty to the extent that you are advocating from 300% to 450%, one of the likely effects is that those who are exporting cars to Singapore will start assembly operations here in Singapore, produce them locally and sell them cheaper than the imported cars? - (*Mr Simon Lau Pak Wai*) If I am not mistaken, we had a plant doing it before, but then they shifted it because they found that maybe it was not cheap to do so.

737. No. We had assembly plants before. The reason why they closed down was because the import duty was replaced by the ARF which applies to all cars whether produced in Singapore or imported. I suggest that you really want to talk about an increase in ARF rather than import duty? - (*Mr Simon Lau Pak Wai*) My point is that you make a car expensive. Right now, if I am not mistaken, somebody has been talking about making car loans difficult. You just cannot tell the bank, "You make it difficult for so-and-so to own a car".

738. I recognise your point. But you are assuming that all cars are imported. When you make import duty high enough there will be local production of motor cars? - (*Mr Simon Lau Pak Wai*) Correct. Then it is up to the Government to decide whether to give the permit.

*Dr Augustine Tan*] What you want is an increase in ARF to achieve your purpose. It is not that I agree with you. I am just saying that it will have an unintended effect.

*Dr Wang Kai Yuen*

739. Mr Lau, in your view, you are in favour of zero car population growth. Is that correct? - (*Mr Simon Lau Pak Wai*) Yes.

740. You would achieve that aim regardless of whatever measure that needs to be implemented, including road tax, ARF, import duties and so on? - (*Mr Simon Lau Pak Wai*) I would say not more of the road tax or those normal expenses for car parks and those things.

741. I understand. In other words, your basic position is to keep the car population as it is and no further growth whatsoever? - (*Mr Simon Lau Pak Wai*) Yes, that is right, until such time that you all think that the car population is not growing, you can reverse it. It is all up to the Government to do so.

742. You are also quite aware of the impact of such a zero car population growth? - (*Mr Simon Lau Pak Wai*) Yes. This will most probably affect those big car companies, the dealers.

743. I am not referring to the businessmen. I am referring to the man in the street who aspires to own a car as he progresses through his career. I am also referring to young people who are coming on to the job market. I am also referring to maybe your own children. When they grow up they also want to have a car? - (*Mr Simon Lau Pak Wai*) I will come to that point. Let us say, we

accept this proposal. I keep my car for 15 years and I get all these incentives. I will pass it to my children.

*Encik Yatiman Yusof*

744. How many children do you have? - (*Mr Simon Lau Pak Wai*) I have three children.

745. If you have three children - ? - (*Mr Simon Lau Pak Wai*) I know you will say that my car cannot be split into three.

746. Yes? - (*Mr Simon Lau Pak Wai*) The family is there.

*Dr Wang Kai Yuen*

747. The other point is that your children are also fortunate in the sense that you have a car? - (*Mr Simon Lau Pak Wai*) Correct.

748. But how about people whose parents do not own a car? - (*Mr Simon Lau Pak Wai*) Mind you, there are still second-hand cars going around. I mean, generally, people keep within their level. There are still second-hand cars around. There is something moving. I mean the chance for people to own a car, there is still a small percentage.

*Encik Yatiman Yusof*

749. Mr Lau, do you also recognize that the economy grows? And to help the economy grow, you need to have new vehicles, lorries, vans, to transport goods. If you advocate for zero growth, you are saying no more new lorries, no more new vans? - (*Mr Simon Lau Pak Wai*) That is not what I have in mind, because what we are stressing right now is all on -

MINUTES OF EVIDENCE

277

3 NOVEMBER 1989

278

*Encik Yatiman Yusof (cont.)*

750. Only private cars? - (*Mr Simon Lau Pak Wai*) Private cars. I am not talking about big lorries and all these things. Big lorries, those cement mixers, we need to have more to support our industry and all the service lines.

751. How do you respond to some young professionals who say that they would rather leave Singapore and migrate somewhere else because they could not buy a new car? And if you follow through your measure, there will be a real possibility of them migrating. What do you say to this? - (*Mr Simon Lau Pak Wai*) I think practically it is not the owning of a car that makes them

migrate. I have come in contact with people who say that it is the system, the pressures from school, from work, and all these things, that are making people to migrate. It is not the owning of a car. If you are talking about owning of a car, I will be migrating to Canada where I can buy a piece of land which is much more cheaper than in Singapore. So it is not just the car itself, it is something to do with the society.

*Chairman*

752. Thank you very much for your views, Mr Lau? - (*Mr Simon Lau Pak Wai*) Thank you.

*(The witness withdrew.)*

Paper 26-The following representatives from the Chartered Institute of Transport were examined:

Mr Mike Gray, Chairman

Mr David Turner, Vice-Chairman

Mr Michael Tay, Hon. Secretary, Land Transport Sub-Committee

---

*Chairman*

753. Gentlemen, could you, for the record, give us your name, address, organisation, occupation and your citizenship status? - (*Mr Michael Tay*) My name is Michael Tay. My residence is 175A Tagore Avenue, Green Meadows. I am a Senior Manager working with AA Pte Ltd Vehicle Inspection Centre. I am a Singapore citizen. (*Mr Mike Gray*) My name is Mike Gray. I live at No. 3, Jalan Kebaya, Singapore 1027. I am a Certified Public Accountant and Chairman of the Chartered Institute of Transport. I am a Singapore Permanent Resident. (*Mr David Turner*) My name is David Turner. I reside at 178B Sixth Avenue. I am a Senior Lecturer at Nanyang Technological Institute and I am Vice-Chairman of the Chartered Institute of Transport. I hold UK citizenship.

754. In your submission, you have recommended that PARF should be scrapped. Could you briefly explain why you want PARF to be scrapped? - (*Mr Mike Gray*) I have to make it clear before answering the question that we also support the policy that restraints should be placed on car usage as well as car ownership. There are a number of reasons why we thought that PARF should be scrapped. Firstly, cars can usually last for about 15 years. Under the

PARF system cars are being scrapped before the end of their useful life. Secondly, the point of PARF was to prevent the cheaper old cars from being used on the roads and being purchased by people who could not normally afford a car. But looking at some of the statistics, there are still a number of older cars on the road. In 1985, 15,894 cars, which is 7.1% of the car population, were over 10 years old. In 1988, this increased to 10.9% of the car population with 26,128 cars being over 10 years old. I also have looked at cars registered in 1977 and how many of them are still on the road. 35% of these cars, which are now 10 years old, are still on the road; for 1977 registered cars it is 31% and for 1976 registered cars it is 21%. Of course, these figures are a little bit distorted because they include Q-plate cars, and Q-plate cars tend to be kept for more than 10 years. Furthermore, looking at the cars registered under ARF and PARF, in 1986 only 7% of cars were registered under ARF and 93% under PARF. In 1985, it was 49% under ARF and 51% under PARF. So the PARF measures seem to have become less effective than they were previously. Those were the main points in our paper. A further point is that prices of cars are artificially high because of PARF. There have been cases quoted to us where people actually made a profit after selling



*Mr Mike Gray (cont.)*

a car after a couple of years. So it does not cost him anything to own the car.

*Dr John Chen Scow Phun*

755. You said that the PARF has not been effective in reducing the number of cars on the road? - (*Mr Mike Gray*) I did not mean it has not been effective. It has definitely been effective but not as effective as it could have been. It has been effective. There is no doubt about it. PARF has reduced the number of cars. You can look at the statistics. The number of cars which are over 10 years old have been reduced.

756. One reason given earlier by a witness is that the reason why more people are buying cars with ARF is because the availability of the car with PARF value reduces for that few years which you have mentioned. Have you looked into that? - (*Mr Mike Gray*) Not in detail. That is true.

757. What they are saying is that in the coming three to five years, there will be a great number of cars available for PARF. In fact, they gave a figure of over 20,000. It varies from 20,000 to 28,000 in the next three to five years. So they are arguing that because of that, the value for PARF will drop and therefore if people were to scrap their cars, it will therefore be more effective. Because if the value of PARF is very high, people might as well just go and buy a new car without a scrap car. But if it is available, then people would scrap their old cars and therefore you remove cars off the road? - (*Mr Mike Gray*) I think it is a matter of people doing their sums. Looking at the present

time, I think the scrap car value of a 1,000 cc car is only about \$9,000. So some people will obviously think of keeping the car, if it is going to last another five years, as they are going to get more than \$9,000 worth of value out of it.

*Chairman*

758. I was a bit unclear about where you stood when you said that on the one hand PARF has been effective in controlling the car population and at the same time you want to scrap it. But you also have the objective of keeping a lid or a control over the car population. Why scrap it if it is effective? - (*Mr Mike Gray*) We think that the measure that we recommend will be more effective, and this is, if you note in our submission, for an additional road tax.

759. Other measures could also be effective. But why scrap one which is also effective? What do you achieve by scrapping it? You lose one instrument of effectiveness? - (*Mr Mike Gray*) We are replacing it with another instrument which is an additional road tax. That road tax would have to be fairly substantial to be effective.

760. No. The availability of another instrument is a justification for introducing that instrument. But is that a justification for scrapping an existing one which is also effective? - (*Mr Mike Gray*) I think, Mr Chairman, the objectives of the two instruments are the same. It is just the way it is carried out. Our suggestion is still to keep the cheaper cars off the road, the same idea as the PARF. It is just another way of doing it which we think could be more effective than the PARF system.

*Dr John Chen Seow Phun*

761. How is it more effective? - (*Mr Mike Gray*) If we put in the additional road tax on a car over 10 years old, then the people using old cars are going to have to pay that additional cost of running their car. So those who cannot afford a car will not be able to afford the annual additional road tax.

*Encik Yatiman Yusof*

762. But you are suggesting this measure to be made effective on the 11th year of the car's age instead of year one when you buy the car? - (*Mr Mike Gray*) That is a good point which we did think about afterwards. I think there is a need to be flexible. Maybe the additional road tax could be brought in more slowly on a graduated basis starting on the 11th year. It is more the principle that we are putting forward than the actual details.

*Dr John Chen Seow Phun*

763. Can we have both, retaining the PARF and at the same time introduce your idea? Would it be more effective? - (*Mr Mike Gray*) I think from 1975 to 1982 there was something similar. But the problem then was that the additional road tax was not large enough and had no effect. I think it started from a car that was 11 years old with 10% of the existing road tax as additional road tax and went up to about 50% of the existing road tax. But the figures were far too low. The average annual cost of a car if you take notional depreciation and notional finance cost is about \$4,000.

764. What I am saying is that you have a graduated scale in addition to the PARF system that we have? - (*Mr Mike Gray*) It might be.

765. You think that it would be even more effective? - (*Mr Mike Gray*) Might be. We did not think along these lines.

*Chairman*

766. Am I to understand that you want to revive the old system but put higher quantum? - (*Mr Mike Gray*) It is a suggestion by Dr John Chen that maybe we have to combine the existing system with our suggested system.

767. Are you not suggesting a revival of an old system that was proven ineffective? - (*Mr Mike Gray*) To some extent, yes; and to the other extent, no.

768. Take the yes part. You said that it was proven ineffective in the past. Yet you think it is going to be more effective than PARF which you said is effective. I do not follow the logic? - (*Mr Mike Gray*) The problem in the past was that the rate of additional road tax was far too low. In fact the rate of additional road tax was negligible. What we are suggesting is something fairly significant that would equate to the cost of owning a car under 10 years old. I have not worked out any exact figures. But it will be something like, maybe, \$4,000 a year. It could be quite a significant sum.

*Dr John Chen Seow Phun*

769. Do you not think that if you increase the road tax for cars greater than 10 years and you make it such that it is at least as high or higher than the notional depreciation of a car under 10 years old,

*Dr John Chen Seow Phun (cont.)*

you would achieve the same effect as the PARF in pushing up the value of cars under 10 years? Because if it is more expensive to drive a car older than 10 years, then I will go for the car less than 10 years. And if everybody does that, that would push up the price? - (*Mr Mike Gray*) That is why I think may be the suggestion is transitional.

770. Yes, transitional. But even then these are the effects. If it is a graduated scale, it may still have the effect. And therefore the detrimental effect of PARF which you have mentioned, which is the price of cars being retained artificially high, is still there. The effect is still there in that it will push up the price? - (*Mr Mike Gray*) To some extent, that is accepted.

771. So it is no benefit? - (*Mr Mike Gray*) No, not so much. I doubt it will push up the prices so high as PARF.

772. Depending on how you introduce it? - (*Mr Mike Gray*) Depending on how you introduce it.

773. If not, then people would go for older cars. Because your argument is that you must make it expensive to own and run older cars? - (*Mr Mike Gray*) Yes. That is the basis of our argument, to make it expensive. In the first 10 years you have depreciation cost.

774. But if you do that, you push up the price of cars which are less than 10 years? - (*Mr Mike Gray*) It could a little bit.

775. If you do not do that, then people will go for older cars? - (*Mr Mike Gray*) I think in transportation

policy, nothing is perfect. It is a matter of trying to get the best.

*Dr Augustine Tan*

776. May I ask you a question concerning the quota system. You seem to be against any idea of a quota system at all. This is in page 6 of your representation. Would you care to elaborate? - (*Mr Mike Gray*) Yes, we did look at the different alternatives. We could not find anything that was fair. Take for instance, if you give every existing car owner a licence to own a car and then you do not issue any more licences. It means the future generation is going to have to pay over the odds to get hold of a car. It is not fair on the future generation if the past generation has been given this benefit.

777. But you are assuming that the licence is given in perpetuity. It need not be. It can be given until the car is scrapped at some stage? - (*Mr Mike Gray*) But then if somebody's car becomes 10 years old and the car is scrapped, then they cannot get another car. Then they have had it!

778. No. Then the licence goes back to the pool and there will be a quota announced every year. So the Minister says, "All right. This year 5,000 new cars or additional cars can be allowed on the road." Then you add whatever number of cars due to age or accident that are scrapped, say, another 2,000. So the total of 7,000 would then be auctioned. Why cannot that be done? - (*Mr Mike Gray*) It becomes like a Singapore Sweep. If you are lucky, you get a car. If you are not lucky you do not get a car.

*Dr Augustine Tan*] No, it is not balloting.

*Encik Yatiman Yusof*

779. By tender? - *(Mr Mike Gray)*  
You have a tender?

*Dr Augustine Tan*

780. Yes, by tender. You consider a balloting system which will make it a lottery. But if it is a tender system, then there will be a price attached to the right to buy a new car? - *(Mr Mike Gray)*  
That would be more like a golf club membership.

781. No, it is not the same as golf club membership. Just as your scrap car has a value, so the right to buy a new car has a value. And you do not keep within the family. The moment you give up the car through accident or selling it, that is it? - *(Mr Mike Gray)* I would have thought that if that system is used and if you stop issuing licences, the actual tender price would be extremely high.

782. Let us consider the present system. The control is through the ARF pricing system and the PARF. But basically it is the ARF which sets the upper limit on the price of new cars. If the Government considered that the rate of increase of the car population is unacceptable, the next thing you hear is that there is an increase in the ARF value or price, they increase the rate. So new car prices will increase. The whole idea is to let the car prices increase to the level where the rate of increase of car population is acceptable to the Government, in its view to keep congestion within tolerable limits. The alternative is, you fix the quantum of increase and let the price find its own level. There are two ways.  
(1) Control the price and let the quantity

find its level. (2) Control the quantity and let the price find its level. Either case you achieve the same results. But in the case of a price measure, you do not know what the outcome is in terms of quantity. By the quantity measure, you know exactly how many cars you are going to get on the road, but you do not know the price? - *(Mr Mike Gray)* The worry of the tender system is that the price could go very high, right through the roof. Whereas you can control the PARF.

783. No, the price outcome is the same. As long as the Government wants a certain rate of increase in the car population? - *(Mr Mike Gray)* Yes.

*Chairman*

784. Could I put it in another way? Would you tender any higher than what you would pay for a scrap car if you were wanting to buy a new car? You would not because you could always buy a scrap car. Therefore, there is a natural limit to the tender price. In fact, there is an anchor price, so to speak, already in the market. So I think this fear that the price would go sky high could be unwarranted because you do have a scrap car market that regulates the price? - *(Mr Mike Gray)* We did think of this in our committee but we were worried about what I said, the point about the price going sky high.

785. Would you agree that much of the fear over the quota system arises from not really understanding it so well? - *(Mr David Turner)* Can I comment on this? I would just like to say that in our submission, I think we had put more weight on other measures rather than the

*Mr David Turner (cont.)*

quota. I think perhaps we did not consider the quota system in full detail. We put more weightage on limiting usage, and restricting usage rather than ownership.

*Mr Lim Boon Heng*

786. Can I ask you on your proposal on feeder services for the MRT? You have argued the case that to expect the feeder service to be self-sufficient, by itself it must be profitable. It is not a fair way of applying the fare structure. It is not the right way of deciding whether or not such a feeder service should be provided. So you argue a case for a certain level of subsidy to these feeder services and that it possibly should come out from MRT. Because your argument is that every additional passenger for the MRT does not cause the MRT any money, or does not cause it very much. So it is a net gain to the MRT. To what level do you think the feeder bus services or whatever form of feeder should be subsidized? - (*Mr Mike Gray*) The total subsidy should not be that there is an overall loss between the MRT and the feeder bus. I do not know. I think the figure is about 700 passengers on the M1 and they say it is making a small loss. I would have thought that presently on the M1 system the overall effect is still a profit. So really overall, we should not subsidize between the two systems. If you have the two together, they should more than cover the operating costs. That is our idea.

*Chairman*

787. Are you saying that the maximum subsidy should be the benefit that

MRT is getting out? - (*Mr Mike Gray*) Yes.

788. So if every passenger who comes to MRT helps SMRT to make say 50 cents, then the maximum subsidy should be 50 cents. Is that your view? - (*Mr Mike Gray*) Yes, that is the view. It should be the maximum amount. Unless the Government is willing to subsidize public transport which, we understand, is not the policy.

*Mr Chiam See Tong*

789. Mr Gray, at page 8, your representation advocates that the Government should be urged to consider the provision of car parking spaces at MRT. Land prices in Singapore are pretty high. Are you suggesting that for parking purposes at MRT, the Government should subsidize car owners? - (*Mr Mike Gray*) I will ask Mr Turner to answer that question. It is his area. (*Mr David Turner*) I cannot really relate it to your question. Our proposal for providing spaces at MRT stations is based upon experience elsewhere. It seems that in major cities in excess of about 2 million population, studies have shown that these are the types of cities which would benefit from the provision of car park spaces at stations well outside the central business districts. After all, it is highly unlikely that anybody on a short trip who uses his car, will be encouraged to change mode to train. Whereas from the outlying districts, as we mentioned, perhaps in Jurong or somewhere similar, to try and get somebody out of his car on to the train is a feasible possibility. It is this type of person who is commuting long distances which we would like to encourage

to consider modal transfer. So, quite frankly, we have not considered the pricing mechanism. All we are advocating is that there should be some provision of park and ride.

790. As a specific case, I think Jurong is an area that does not house people with car owning population. We should be thinking more of places like Buona Vista? - *(Mr David Turner)* Yes, maybe. But again in Buona Vista, perhaps there is a lack of housing from which people would be likely to use their car and park at the station.

791. There is a big spread of private housing estates? - *(Mr David Turner)* Yes, Ghim Moh and Holland Road.

792. The point I am trying to make is that land is scarce in Singapore and the cost of land is high. If you make provision for car parks at MRT stations, the Government will not get a return. So there must be an amount of subsidy. Do you agree that Government should subsidise car owners to park at MRT stations? - *(Mr David Turner)* Quite frankly, you are putting a suggestion to me which we have not considered. It may be. I think the price for leaving your car at the car park before transferring to trains has got to be sensibly worked out at such a level that it does not distract from the system. We do not want to see a failure like what we had in the previous park and ride scheme. It may mean some subsidy perhaps from SMRT or whatever. But it has got to be fixed at a sensible level. I quite admit that we have not looked at the level of the car park charges.

793. Have you considered that parking at MRT stations is a service the Government should provide, like electricity and water? Do you consider it as important as that? - *(Mr David Turner)* I suppose it is very unfair because it is only favouring those who own cars. We have to consider everybody in Singapore. So it is inequitable in that sense.

*Chairman*] I should point out that electricity and water are not subsidized.

*Dr Augustine Tan*

794. I am just wondering whether there is a misapplication of an idea that seems to sound very good, this park and ride or having feeder services to induce people to change their mode of transportation from cars to MRT or cars to buses. If you take the case of say, London, what really induces people to do that? I believe it is the sheer congestion. You just cannot move your car very well in the city area. So it is better to leave it somewhere and take the MRT or the subway into the city. So it is not a matter of pricing. It is a matter of avoiding the cost of congestion to the motorists. In Singapore, everybody thinks that the Buona Vista area is ideal to induce the substitution if there were more regular feeder services, if the price of feeder service were less, if car parks are made available. But you look at the figures. To go into the CBD, there are only 20,000 cars going into the CBD now, which is a slight increase, a 13% increase before the new ALS scheme went into operation. In fact, they lowered the entry fee to encourage more private vehicles to enter the CBD, which means that there is no congestion now for vehicles entering the CBD. (1) Why should motorists want

*Dr Augustine Tan (cont.)*

to park and ride or take a feeder service from Buona Vista into Buona Vista Station and go into the city? (2) If you are considering other areas, like Jurong and so on, where they can go to work, there is no congestion on the roads leading to Jurong. Why should they bother? Furthermore, when you arrive at your destination, let us say, within the CBD, that is fine. The offices are quite closely packed together and so on, you can just walk to your office. But if you go to Jurong, let us say you go to Jurong Station, where do you go from there? You have to take another feeder service or a cab to get to your office. The geographical distances are there. So I believe that people are just barking up the wrong tree when they think that feeder services and the provision of car parks at MRT stations are going to induce motorists to switch their mode of transportation. I believe it just would not work? - (*Mr David Turner*) Regarding your first point, I think people will be encouraged to use park and ride and transfer to a train if, they are really working within the vicinity of the station at the destination end. We have got a new system which offers comfort and convenience and I think it is attractive to most people to use provided they do not have to walk very far at their destination end, if their office is nearby. I think it is a well-known fact that Singaporeans do not like to walk very far because of the conditions.

795. It is rather hot? - (*Mr David Turner*) Yes, because of the conditions. But those people who can be encouraged and there certainly is a proportion who

do work within maybe 400-800 metres of a station at the destination end may well decide to transfer. With regard to travelling in and from Jurong, I would disagree with you and I would say there is congestion on some of the roads and certainly there is congestion on the PIE in the morning and in the evening if you travel along sections of it.

796. The kind of congestion as in London? - (*Mr David Turner*) No, I would say not at that level. But there are still certain places where the congestion is quite severe and delays can be quite excessive.

797. Is it enough to be a disincentive? - (*Mr David Turner*) I think so. If you can be provided with a convenient service where you can quickly change mode and your work at the other end is within reasonable access of the station, such a scheme may well work.

798. You arrive at Jurong station but then you are 2 km away from your office. What do you do? - (*Mr David Turner*) That is another thing. You have to think about some sort of feeder service.

799. Precisely. Since Jurong is so dispersed, can a feeder service at that end be economical? - (*Mr David Turner*) Maybe not. This may be something which should have been thought about when the station was provided.

*Chairman*] Perhaps I could clarify. A feeder service already exists from Jurong station to Tuas and a number of other areas. There is a feeder service from Jurong station.

*Dr Augustine Tan*] But it is not good enough to induce the motorists to switch.

MINUTES OF EVIDENCE

295

3 NOVEMBER 1989

296

*Chairman*

800. That is what we are debating now. But a feeder service does exist. Secondly, on the question of congestion on the road leading to Jurong, the congestion is of a sufficient level that I think an ALS for Jurong has been seriously considered? - (*Mr David Turner*) Yes, I am aware of that fact.

801. Any other questions? If not, thank you very much for your submission? - (*Mr Mike Gray*) Could I, Mr Chairman, submit an additional paper? I do not know whether you are interested. It is on the passenger transport committee. In the section on the passenger

transport committee, our submission was quite brief.

802. You have an additional submission? - (*Mr Mike Gray*) It is the London Regional Passenger Committee's Annual Report which would expand on our submission. We think this is quite an important idea.

*Chairman*] We will read it before our next meeting. Thank you. You can pass it on to us. [*Copy of document handed to the Committee.* ]

*Sitting accordingly suspended  
at 12.35 pm until 2.00 pm.*

*(The witnesses withdrew.)*



Sitting resumed at 2.00 pm

**[Dr Hong Hai in the Chair]**

The following representatives of the Ministry of Communications and Information were examined:

Mr Tan Guong Ching, Permanent Secretary (Communications)

Mr Phua Tin How, Registrar of Vehicles, ROV

Mr Lam Chih Tsung, Assistant Director

*Chairman*

803. Gentlemen, for the record, could you please state your name, address, occupation and organisation you are from? - *(Mr Tan Guong Ching)* I am Mr Tan Guong Ching, Permanent Secretary (Communications) of the Ministry of Communications and Information. *(Mr Phua Tin How)* I am Phua Tin How, Registrar of Vehicles from the Registry of Vehicles. *(Mr Lam Chih Tsung)* Lam Chin Tsung, Assistant Director (Land Transport), Ministry of Communications and Information.

804. Mr Tan, your Ministry has written to the Select Committee to comment on a number of questions that were raised by the Select Committee concerning PARF and quotas on car population. Could I direct my first question to the question of PARF? In your view, what would be the effect of abolishing PARF on the total car population in Singapore in the absence of any other concurrent measures? - *(Mr Tan Guong Ching)* As we have stated in our paper, the PARF scheme is an incentive scheme for car owners to scrap their cars early. If the scheme were to be abolished, there

will be many factors which will come into play. As has been mentioned in our report to you, abolishing the PARF would mean that new car prices will go up, which must mean that the demand for new cars must drop. In terms of the used cars, there will be some used cars which are normally used as scrap cars at the end of their 10 years. These cars will not have their values held up by the so-called scrap car value. Therefore, there will be a drop in the prices of these cars. But because of the drop of the prices of these used cars, there will be an increased demand for them which will help to bolster up their prices. On balance, these car prices will probably not fall in value that significantly. There is another category of used cars which are not usually scrapped for the PARF. Their car values would generally be unaffected by the abolition of the PARF, except that of course because the new car prices will go up, their used car prices will also tend to rise with the price of the new cars. So there are many factors affecting the car population. As Committee Members have mentioned, there will be a supply of old cars at a fairly low price which the marginal car owners will tend to buy. Therefore, these cars will be

kept beyond their 10 years and therefore increasing the car population. But there are the counter-factors which pull in the opposite direction. Firstly, you have got higher prices for new cars which make the purchase of new cars more expensive and hence lower their demand. The second factor is that the depreciation rate for cars will be increased, and depreciation rate is a significant part of the cost of owning a car. So this will deter some marginal car owners from owning a car. Of course, on the other hand, there will be a greater pool of cars in which some marginal owners may find that they can purchase cars from. So, on balance, we feel that the rate of increase in the car population will drop slightly with the abolition of PARF.

805. Mr Tan, can we look at this question from the view of there being two markets - the market for new cars and the market for old cars or used cars. The market for used cars is affected by your scrapping of PARF in this way, that there will be a rather sharp increase in supply because the cars that used to be scrapped and taken off the streets are now available. So there is a sharp increase in supply. As you said, there could also be a slight drop in the price. Therefore, as a result of that, with a sharp increase in supply and with a drop in price, we would expect a fairly sharp increase in the ownership rate of used cars. Compare that with the increase in the price of new cars in the new car market where it has been observed by at least one economist who appeared before the Committee this morning that the price elasticity is not very high. In other words, an increase in price at the new car level, its impact on ownership is not very great. In fact, the

income effect is much more greater than the price effect. Is it not possible that the result of these two opposing forces is such that the increase in the used car population swamps or more than outweighs the decrease in the new car ownership? Do you rule that out? - (Mr Tan Guong Ching) We cannot rule that out. It is quite possible that the increase in the old car population will swamp out the drop in new car population.

806. In other words, the total population could increase rather than decrease? - (Mr Tan Guong Ching) It could increase. But as we have said in our paper to you, on balance, we think that the pull in the other direction is stronger. Because I think we must also bear in mind that there is a natural economic life-span for a car. Beyond a certain age, the cost of maintaining and repairing the car goes up and at a certain point also, spare parts would not be available.

Dr John Chen Scow Phun

807. But with the current measures in place, do you think that people would give up their car because maintaining an old car is expensive? Is that the case at the moment that the cost incurred is high? We are saying that if you do not introduce any measures, what is going to happen? Will we get an increase in car population or not? - (Mr Tan Guong Ching) You are asking about the current practice of people, whether they keep their cars beyond 10 years?

808. I am asking whether the current measure or policy discourages people from keeping old cars? - (Mr Tan Guong Ching) Yes. The purpose of the PARF scheme is an incentive scheme for

Mr Tan Guong Ching (cont.)

people to scrap their cars before they are 10 years old.

*Dr John Chen Seow Phun (cont.)*

809. If you abolish PARF without increasing the cost of owning and using old cars, will you have more people using old cars? - *(Mr Tan Guong Ching)* There will be more old cars on the road because cars will then be kept beyond 10 years. But as to whether there will be an increase in the total car population, as I have mentioned, there are two sets of opposing forces which are finely balanced.

*Encik Yatiman Yusof*

810. But do you think it is sensible, in order to discourage cars beyond 10 years from being continuously used, if the Government imposes punitive tax on old car owners? Will that be a logical step? - *(Mr Tan Guong Ching)* We will study all possible measures, if it should be necessary, to make the cost of owning a car beyond a certain age more expensive. But this is something that has to be taken as a total package. It is not something that you would want to do piecemeal.

*Chairman*

811. Mr Tan, if a more thorough study was made perhaps with empirical data thrown in and the conclusion was that scrapping PARF was more likely to raise the car population than to lower it, if a study came to that conclusion, would there be any reason then to scrap PARF? What would be the other reason for

wanting to scrap PARF? I am not saying that the Ministry has taken such a stand but the possibility exists. What would be the rationale for scrapping PARF if it could be demonstrated that it was unlikely that scrapping it would decrease the car population? In fact, it might well be - ? - *(Mr Tan Guong Ching)* We are open to suggestions from all members of the public, including the Select Committee. And I think we will review the situation if evidence can be produced.

812. Mr Tan, what I was trying to get at is whether there were other reasons that your Ministry may have that were in favour of scrapping PARF. Because I think the Committee and the public would like to understand if such a policy were to be pursued, what was the economic rationale behind it. One argument that has been put forward by one or two parties is that PARF has helped to create a situation in which the car is an investment good because the resale value is being propped up by PARF and therefore has encouraged car ownership by making it more economically worthwhile, that is, it has added an investment feature to car ownership. Do you agree that that is a significant factor? And if you do, could you also comment on the role of currency appreciation in the last five years on a car being an investment good? To put it more specifically, I think it can be shown that the value of used cars in the last five years has been kept up somewhat more by the appreciation of the Yen and the Deutschemark than really by PARF? - *(Mr Tan Guong Ching)* Thank you, Mr Chairman. As to whether PARF helps create this appreciation in the value of the cars, I think the

answer is quite simple. The PARF provides a sort of a base price for a scrap car, in which case it means that the depreciation rate of the car, assuming currency fluctuations remain the same, is much less. In other words, from the original sale price, it goes down much slower to what is known as a scrap car value. In the absence of the PARF, of course, it will go down much more sharply. In that sense, it does not help in the appreciation in the value of the car, but it slows down the depreciation of the value of the car, in the absence of the currency fluctuations. But the moment you have the currencies of the major car exporting countries going up, such as the Yen and the Deutsche-mark, then of course the new car prices will be marked up accordingly. When the new car prices are marked up, used car prices will, of course, accordingly follow. You are quite right, Mr Chairman, that over the past four years, the currency appreciations of the major car exporting countries have actually helped make cars an investment good in that sense. But currency fluctuations being what they are, these are things that we cannot predict.

*Dr John Chen Seow Phun*

813. Mr Tan, what do you think of the merit of the scheme where instead of fixing the PARF at a percentage, you fix it at a value in terms of dollars, and then you can adjust this value according to exchange rate or according to demand? What do you think of the merit of this proposal? - (*Mr Tan Guong Ching*) What would be the purpose of fixing the value of the PARF?

814. So that the PARF value would not fluctuate if there is a change in the difference of the PARF and ARF rates and also the currency rates? - (*Mr Tan Guong Ching*) What you are saying is fix the "discount", so to speak.

815. Right, fix the discount? - (*Mr Tan Guong Ching*) Fix the value rather than as a percentage of the new car prices. Of course, this is something that we can look at. But the effect, of course, will be to fix the scrap car value. So there will be less fluctuations.

816. It will not be an investment in that sense. People know that that is the value you are going to get? - (*Mr Tan Guong Ching*) It will fix the scrap car value, but for cars in between a brand new car and a car that is 10 years old, there will, of course, be fluctuations according to the fluctuations in new car prices. When you say you fix the discount, what you really mean is that you are fixing the scrap car value.

817. You can always take a reasonable value? - (*Mr Tan Guong Ching*) If I read you correctly, what you do not want is to have a situation where because of currency fluctuations, people make money out of buying a used car.

818. Some incentives to buy a car? - In other words, if you fix the discount, basically you are fixing the scrap car value. But the price of the new car will fluctuate up and down according to other factors, currency factors and so on. In between the price of a car that is 10 years old, that curve will fluctuate up and down with the original new car price.

*Dr John Chen Seow Phun (cont.)*

819. Now the whole thing is fluctuating up and down? - (*Mr Tan Guong Ching*) Yes. I do not see any advantage in fixing the scrap car value.

*Dr Wang Kai Yuen*

820. Mr Tan, if PARF were to be scrapped, it is a big if, what would be an equitable way to implement it? Would you like to implement it overnight or would you like to implement it over several years? Of course, the fairest way will be to implement it over 10 years? - (*Mr Tan Guong Ching*) Of course, there are many ways. If, as you say, a capital if, we should want to abolish the PARF, there are many ways in which this can be done, and I am sure we will review all the measures.

*Chairman*

821. Could I describe one way in which it could be done which has been proposed this morning? That all existing cars retain their PARF value, that is, they can continue to be scrapped. But for all new cars purchased as at a certain future date, they would not have PARF value. That is, there will be no scrap value to these cars after a certain date of purchase. The effect of that is that existing car owners are not, if you like, penalized for having bought these cars in the past, and that new car owners go in with their eyes open. Do you see any problems with what seems to be an equitable scheme? - (*Mr Tan Guong Ching*) As Dr Wang has said, this is basically a scheme of phasing in the abolition over 10 years. Because in 10 years' time, all those cars

which were just recently bought would then lose their PARF.

822. Do you see a problem with this in any way? - (*Mr Tan Guong Ching*) The problems will be the usual problems of scrapping the PARF scheme. As we have said earlier, the PARF scheme is an incentive scheme for people to scrap their cars early. So if you do away with the scheme, then there is no more incentive for people to scrap their cars early.

823. Could an alternative incentive scheme or disincentive for owning used cars come forward in the meantime over the next 10 years? For example, graduated taxation, that is increasing taxation on cars as they get older, so to speak. A reversion, if you like, to an old scheme. Would that in some way make up for the ill-effects, if you like, of phasing it out over 10 years? - (*Mr Tan Guong Ching*) These are all possibilities that the Ministry must review. As my Minister has said in Parliament, we are constantly monitoring the situation and reviewing whatever measures need to be done. If there is a need, we are open to all suggestions from all members of the public as well as from the Committee.

*Dr Augustine Tan*

824. It appears that there are certain problems associated with the present PARF policy. Your PARF/ARF differentials seem to differ for different capacities of cars, so much so that for certain capacities below 2,000 cc or some categories, it is actually cheaper to buy at ARF than to use a scrap car on the PARF basis. Over the years, there have been quirks in the market. There was a time

when cars above 2,000 cc had very little resale values because of the high road taxes, high petrol costs and so on. But today the reverse seems to be the case. The scrap values of 2,000 cc cars are very high because of the high demand for Mercedes Benzes, BMWs and high capacity cars. Over the years too, whenever you raised the ARF you did not quite raise PARF as frequently. I think that created certain discrepancies too. Perhaps you might want to comment? - *(Mr Tan Guong Ching)* As to the quirks of the market place, I think it is something that is difficult for anyone to judge at any one time. Because it is the collective decisions of thousands of car owners. Yes, I do agree with your observation that there was a time when cars above 2,000 cc were in no demand and their values were quite low. But in recent years, things have turned around and their demand has gone up and it is virtually very difficult to find a scrap car from this range for scrapping to get your PARF. These are the mechanics of the market place. It is the decision of thousands of car owners. So it is something that is difficult for one to quantify at any one time. As to your second point where you said that when we raised the ARF we did not raise the PARF accordingly, I think Members may be under an erroneous impression because the PARF is set at a percentage of the ARF, not of the OMV. It is fixed as a percentage of the ARF. For example, the current ARF is 175%. For the car in the 1,000 cc to 1,600 cc range, the preferential rate in which you pay the tax is 50%. So it is 50% of 175%. In other words, a new car owner when he is buying on PARF, he pays 87.5%.

825. I stand corrected. But the pricing approach to control of car population seems to have produced quirks in the market because people have shifted from high capacity cars to low capacity cars. They have shifted from higher price cars from, say, Japan and Germany, to lower price cars. Today, we are getting even the Lada coming in because they are much cheaper. So the substitution effect seems to erode your car ownership policy, Are you considering switching to a quota system which is much more reliable in fixing the growth of car population? Then you do not have to worry about PARF and so on. You just require one for one replacement plus X% growth a year that you would announce and then auction whatever licences are available to buy new cars? - *(Mr Tan Guong Ching)* We have surfaced a paper to the Committee on the pros and cons of the quota system versus PARF/ARF system. Basically, the quota system is one in which you fix the number and let the market place decide the price. Whereas the ARF/PARF system is basically fixing the price and letting the market fix the number. As we have said in our paper to the Select Committee, there are advantages and disadvantages for both. I think before we make any decision on whatever measure that needs to be introduced, we would have to bear in mind all the advantages and disadvantages and weigh them carefully.

826. The reason I raise this is because every now and then we get an official statement which says that the car population is increasing too rapidly and therefore we need to have to increase the cost of using the cars. Therefore, higher parking charges, higher petrol costs and so on

*Dr Augustine Tan (cont.)*

and so forth to discourage car ownership. In other words, you are then penalizing existing car owners. Whereas if you had a quantitative approach, a quota approach, it is much simpler. You can control the car population without having to raise the cost of using the cars to existing car owners? - (*Mr Tan Guong Ching*) As we have mentioned in our paper, there are some disadvantages of the quota system, which are by no means not insignificant. It leads to a wider fluctuation in both the new car prices and used car prices and more uncertainty in the minds of the prospective car owner.

827. But people can live with that kind of uncertainty. I do not see any other reason for not using it?— (*Mr Tan Guong Ching*) Apart from that, there is the fact that it is an unproven system. It is something that is new.

828. Compare that with your present policy. Every now and then you have to come out and say, "Look. Either we raise ARF or we increase car usage costs." That is unsettling to people who own cars? - (*Mr Tan Guong Ching*) Correct.

829. And you say that we have failed to control car population, something drastic must be done. Whereas the alternative is very simple and very clear. You determine what is the congestion level that you find tolerable and you say that we can afford to increase X percent this year, Y percent next year and so on. You do not announce it except for this current year and then auction off the right to buy a new car and that is it. You have perfect control over the numbers. You do not have to announce any other price

measures, any car usage measures, whatsoever, except for localised congestion like the CBD where you want to divert traffic and so on, you can do that. But other than that, you do not inconvenience and anger the motorists all at once? - (*Mr Tan Guong Ching*) I perfectly agree with you that there are disadvantages of both systems. There are shortcomings in the ARF and PARF system. There are also shortcomings in the quota system. But it is something that the Ministry will review and take into consideration whichever way the Ministry feels that the measures need to move towards.

*Chairman*

830. Would you say that one of the factors that would discourage the Ministry from using the quota system is that it would give Ministry officials a lot more administrative hassles. It is administratively much more difficult to administer? - (*Mr Tan Guong Ching*) Not really. We would not consider it as a significant disadvantage. We have an existing system for bidding for car numbers, ie, the lucky numbers. We have this in place and we do not find this administratively cumbersome to administer.

831. Would you say it is also politically more difficult to handle? - (*Mr Tan Guong Ching*) There are both pros and cons. It could be easier politically because then you have a rational basis for setting your quota and it is really the market place which decides the price.

832. You are saying that as a result of the quota system if there was a speculative run on ownership of cars and car prices are bidded up tremendously and

there is tremendous dissatisfaction and unhappiness in the market over very high car prices as a result of speculation, that would be politically easy to handle? - (*Mr Tan Guong Ching*) No. What I am saying is that that is the political disadvantage. But the political advantage is that the Government is seen to be rational in fixing the quota because you can, on the basis of availability of roads or congestion levels, fix a quota.

833. You believe that the Singapore public views a quota imposed by the Government as something rational and acceptable? - (*Mr Tan Guong Ching*) No. What I am saying is that there is a rational basis for which the Government can set.

834. But would it be perceived? - (*Mr Tan Guong Ching*) But whether it will be perceived or not would be a different thing.

835. What is your view? Will the people take to it? - (*Mr Tan Guong Ching*) It depends on whether you are a first time car owner or an existing car owner. Because if you are an existing car owner, probably you are not so severely affected as a new car owner.

*Dr Augustine Tan*

836. But you could take the odium away from the Government by having the decision made on the quota by the Public Transport Council which is widely represented. Talking about speculation, your current system lends itself to a lot of speculation. If you look at the pattern of new car purchases over the years, you will find that whenever the market expects your Ministry to raise ARF, there

is a sudden surge in terms of car buying and the used car dealers also get into the market and then start cornering the market and used car prices go up. That is the reason they were here earlier today very concerned that you will lift the PARF because they have got a stock of vehicles that will suddenly lose in capital value should you suddenly change your system. So the speculation is already there under the present system and a lot of uncertainty as well? - (*Mr Tan Guong Ching*) True.

*Mr Chiam See Tong*

837. Mr Tan, I believe the earlier question was asked of you if PARF was scrapped, how would you implement it? You were not really given a chance to answer this in full. All you said was there were consequences in removing the incentive. Can you elaborate? - (*Mr Tan Guong Ching*) The consequences of abolishing PARF?

838. Yes? - (*Mr Tan Guong Ching*) The PARF, as I have said earlier, is an incentive scheme for people to scrap their cars before they are 10 years old. Once that incentive is removed, there will of course be some people who will keep their cars beyond the 10 years and this must mean that the average age of our car population will move up. When you have an older population of cars on the road, it must mean that there are more frequent breakdowns on the road and perhaps more accidents due to mechanical failure.

839. But we have got regular checks? - (*Mr Tan Guong Ching*) Yes, we have regular checks. For cars younger than 10 years, it is every two years and beyond 10 years, it is every year. But in



*Mr Tan Guong Ching (cont.)*

between inspections, of course, many things can happen.

*Mr Chiam See Tong (cont.)*

840. You can make the checks more frequent, can you not? - (*Mr Tan Guong Ching*) We can make it more frequent, yes.

841. To prevent breakdowns on the road? - (*Mr Tan Guong Ching*) To prevent breakdowns on the road.

842. You can increase the fines for breakdowns on the roads and heavier fines for breakdowns on key roads like expressways? - (*Mr Tan Guong Ching*) Yes, we are open to all suggestions.

843. Mr Tan, if you do not increase the ARF and with the removal of PARF, naturally the growth of car population will increase? - (*Mr Tan Guong Ching*) Not necessarily. As I have said earlier, there are two sets of opposing factors which pull in opposite directions insofar as the car population is concerned. But in the case of the age of the car population, I think it is quite clear that there will be an increasingly older car population if we remove PARF.

844. What are these two opposing forces? - (*Mr Tan Guong Ching*) Mr Chairman, shall I go over it again?

*Chairman*] Mr Chiam, we actually went through that in some detail when I posed my questions. Perhaps we could move to another topic.

*Dr John Chen Seow Phun*] Mr Chairman, can I ask a question on the same topic?

*Chairman*] Yes.

*Dr John Chen Seow Phun*

845. Were you saying earlier that one of the reasons why the PARF scheme is not as effective as it should be is the shortage of older cars available for PARF, and therefore pushing the PARF price up. As a result, people will pay ARF for a lower-end car like Lada and so on. Were you saying that earlier? - (*Mr Tan Guong Ching*) I am sorry. I did not catch you.

*Dr John Chen Seow Phun*] Are you saying that one of the reasons why the PARF scheme is not as effective as it should be is the shortage of old cars for PARF and, as a result, the PARF price moves up so that people would not have the incentive to buy a scrap car but to buy a lower-end car at ARF value? As a result, the PARF scheme is not effective. One of the reasons for scrapping the PARF scheme is that it is not as effective as it should be.

*Chairman*] Sorry, Dr Chen. I do not think anybody has made a decision to scrap it.

*Dr John Chen Seow Phun*

846. I am not saying that. I am saying that if there should be a reason for scrapping it, what is the reason for scrapping it? Is it because it is not as effective as it should be? - (*Mr Tan Guong Ching*) I think there are pros and cons to the PARF scheme. I think I have outlined them. The pros, of course, is

that it helps to keep our car population young by giving an incentive for people to scrap their cars before they are 10 years old. The disadvantage of the PARF scheme is that it makes the purchase of new cars cheaper and also it slows down the depreciation rate for used cars. Because there is a floor value called the scrap car value which tends to keep up the value of the used car. The disadvantages are new car prices are cheaper and, secondly, the depreciation rate is also lower.

*Chairman*] Mr Lim, you want to move to a new subject.

*Mr Lim Boon Heng*

847. It is a new subject. Can I ask a question on the ALS? Yesterday we had the PWD before us and I am sure you must have read in the newspapers what was mentioned. According to the data which was supplied to us, the traffic in the evening ALS seems to have peaked around 6.00 pm and decline after that. And it increases at 7.00 pm with incoming traffic. It seems to the Committee that on the basis of the data that was given to us there is a case for shortening the evening ALS to 6.00 or 6.30 pm. What are your views on this? Would the Ministry consider the shortening of ALS in the evening? - (*Mr Tan Guong Ching*) I think my Minister has given this assurance in Parliament. He said that with all the measures introduced, we will monitor the effects and we will review the situation and make adjustments as and when necessary. We are monitoring the situation and we will continue to monitor the situation and we will review the matter. If there is a case for shortening the hours, we will most certainly do so.

848. When are you expected to do the review? - (*Mr Tan Guong Ching*) The PWD will be conducting a second set of traffic flow surveys some time either next week or the week after. The results should be available perhaps some time in December. The reason is that we must allow the traffic pattern to stabilise. The first survey that was done was done roughly four weeks after the introduction of the evening ALS. So there will be some shifts in behaviour which may not have totally settled down by then.

*Dr Augustine Tan*

849. What you are saying is that it is too early to tell whether the pattern has settled? - (*Mr Tan Guong Ching*) It may be too early to tell and it depends on the result. If the result in the coming survey is roughly the same as that of the August survey, then there is every likelihood to believe that the situation has stabilised.

850. Mr Tan, I am concerned about the objective for the evening ALS and the criteria for evaluating success or failure of the scheme. When one looks at the morning ALS, quite clearly there is an economic objective, ie, to get people to work on time with as little hassle as possible. But in the evening, people are getting home or going to some other place of entertainment. Why is there the same need for getting there in a hurry? Is there an economic cost attached to it? Secondly, your criteria for judging success seem to be based upon - from the figures I have seen - the increased speeds of vehicles on certain roads. But what about the 46% of the inbound traffic that has been inconvenienced (because there is a decline in inbound traffic of 46%) and these are people

*Dr Augustine Tan (cont.)*

either returning into the CBD area where they live or have their offices or through-traffic, ie, people using the CBD as a means of getting home or somewhere else? That 46% still does not include people who may postpone going home to the CBD and then there is a further cost to businesses within the CBD. They are inconvenienced and it is a very real economic cost to them when people cannot get into the CBD very easily during the evening or they have to pay a price to get in. Could we have your comments? - *(Mr Tan Guong Ching)* On the evening ALS, whether there is any economic cost because everyone is going home, I presume you are alluding to the fact that if they are going home their time is less precious than if they were going to work.

851. Yes, from the economic point of view. But from the sentimental point of view, maybe you want to get home earlier to be with your wife or girl-friend? - *(Mr Tan Guong Ching)* It is a debatable point. The time that you have in the morning before you go to work and the time in the evening after your office hours in terms of value should be roughly equal.

852. Why should they? So you get home 10 minutes later before your ALS. What does that mean, 10 minutes, 15 minutes? - *(Mr Tan Guong Ching)* What about leaving your home 10 minutes earlier in the morning?

853. But you do not want people to be late for work. And there is a danger of them being late for work otherwise? - *(Mr Tan Guong Ching)* Then you are

saying if they are late for work, their value to the company is greater.

854. Yes? - *(Mr Tan Guong Ching)* Of course, you can always make up for this by working an extra 10 minutes or 15 minutes longer.

855. Yes, for the company. Then the economy will benefit. Higher GNP. So why have the evening ALS? - *(Mr Tan Guong Ching)* Let me try to understand you. What you are saying is that the evening ALS, the time of a commuter is less valuable than the time in the morning. It may be because someone wants to sleep a bit longer in the morning. Therefore, that time is more precious to him than going home in the evening. But let me just move away from this point. I think there is a cost to the whole nation from congestion, not just in terms of the individual traveller. There is the cost to the business sector because it becomes more difficult to deliver goods during that time.

856. In the evening? - *(Mr Tan Guong Ching)* In the evening. For example, if you have to make some deliveries in the evening, your travel speeds will be lower due to congestion. Therefore, instead of making, say, two trips, you can only make one trip. There is also the effect of slower speeds on emergency response vehicles. If you recall, the King's Cross fire in London at the King's Cross station occurred just at about 5.30 in the evening when everyone was just rushing off to go back, and traffic was the heaviest. The fire engines had great difficulty in reaching the scene of the fire because of the congestion.

857. But that is only true if you have only one fire station in the CBD area.

But if you have other fire stations and they are all on duty, there should not be a problem? - (*Mr Tan Guong Ching*) But the fire could be anywhere in the city. And if there is congestion on the roads, it is more difficult for fire engines or ambulances or even police cars to reach the scene of an emergency.

*Encik Yatiman Yusof*

858. Mr Tan, I would like to bring this issue to focus. So far, we have been given figures to show the impact of evening ALS in terms of vehicles travelling into and out of the city. But what we are not so certain is actually the number of people who are buying the CBD labels in the evening only. If the people using ALS in the evening are using the same label in the morning, there will be less justification. Do you have any figures on this so far, on average? - (*Mr Tan Guong Ching*) The rough rule of thumb is that two-thirds of the daily licences are purchased in the morning and another one-third in the evening.

859. That seems to be the observation I had on the ALS booths. They are empty in the evening, giving the impression that we have the same cars driving in and out using the same label. But you are putting it as one-third of the daily licences is bought only in the evening? - (*Mr Tan Guong Ching*) In the evening. That is right.

*Mr Chiam See Tong*

860. Mr Tan, I believe you have not fully answered the question of Dr Augustine Tan in regard to the objectives of having the ALS in the evening? - (*Mr Tan Guong Ching*) Mr Chairman, I

remember I tabled an annex on the inbound and outbound traffic to the Select Committee previously.

*Chairman*

861. Yes, we have it? - (*Mr Tan Guong Ching*) If you look at both the inbound and outbound figures, for May 1989, they are very high. The PWD has assessed that the capacity of our outbound roads is about 15,000 vehicles per half hour. And in the 5.30 to 6.30 time frame, the figures exceed those numbers which must mean that on quite a few roads in the city, travellers or commuters would have to wait for more than three traffic light changes to get past that particular junction.

862. Mr Tan, I think at the end of the day you will agree that what really counts is whether people are saving time either in getting home or going about their business. Do you at this stage have hard evidence that convinces you that the scheme is successful in so far as it saves time? And here I am thinking of two categories of people. The category of people who go home - are they taking less time to get home? We have conflicting reports on this. PWD thinks that more people are saving time than those who are losing time. It works both ways. The feedback we have from many commuters is that it is taking them less time to get out of the CBD but much longer time to go from the CBD boundary to their home. In other words, overall, it is taking them more time. So my first question is: do you have hard evidence in terms of transit time for getting home, time is being saved? The second category of people are the people who want to come

*Chairman (cont.)*

into the CBD from outside. Because of ALS they are delaying their entry. They may be hanging around waiting for CBD to open up. There are people who want to get home, bring their children home after school. They are also delaying their entry. So we, must not forget that time is also lost there, in the sense that people are delaying their entry to the CBD. So if you take both into account, are you convinced -that the evening ALS has resulted nationally in the saving of time? - *(Mr Tan Guong Ching)* On the first category of people, people going home from work, I understand PWD has also tabled to you a paper showing their surveys. The survey, I understand, was quite comprehensive and was taken over a week and they had taken certain routes. Some routes are within the city itself, some routes are along what are known as radial roads (in other words a portion of the travel is within the CBD and a portion is outside the CBD) and also certain travels which include the ring roads. From their surveys, they have concluded that 80% of trips would have a saving in time and approximately 20%, particularly those where part of the journey includes the ring roads, may have an increase in travelling time.

863. I am sorry to interrupt you there. But I think we ought to inform you that although we heard this evidence yesterday, we pointed out that that alone does not imply that there is a saving in time in getting home. Because you could be saving time on 80% of the routes but you could be losing a lot of time on the other 20% depending on the route you take to go home. All you need is one big

congestion at one point and you have lost everything you gain on your earlier part of your journey. So we pointed out to PWD that it was not fair or logical to draw the inference based on speeds on highways. To go from those numbers to the conclusion that most people are getting home earlier, we felt that the more direct measure is to actually travel the route from work to home and measure the time as compared to the situation before ALS, except that of course you have a bit of a problem because I do not know whether the measurements were made before the evening ALS came into being? - *(Mr Tan Guong Ching)* The measurements were made before the evening ALS was introduced and it was for trips.

864. Travel time to get home, not just on the speed? - *(Mr Tan Guong Ching)* Yes. And they do it on trips and Members of the Committee may wish to join them when they next perform it in a week's time. In other words, you can follow them from the car originating in a point in the city and ending in a point outside of the CBD, along the same routes that they have done before the evening ALS.

*Encik Yatiman Yusof*

865. Mr Tan, we had made our observation and our comment yesterday on the validity of the survey because it was based on officers driving along the same route and there was a proposal for actual road users to be surveyed. We should put the question to those who have been travelling the same routes before introduction of evening ALS and after. Perhaps that would give us a better

picture rather than having our own drivers to drive around different routes at different times over one week. That is the area where I think the panel disputes? - (*Mr Tan Guong Ching*) I think this is something that of course the PWD would look at. But it would mean that people must be willing to record down their travelling times and submit them to the PWD and be honest with it.

*Dr Augustine Tan*

866. Even in terms of the data presented, I pointed out yesterday that for the expressways only the average was given, instead of telling us from one end to another this is the speed and from the reverse direction there is another speed. I rather suspect that the figures would have shown something quite negative? - (*Mr Tan Guong Ching*) I think they did show outbound and inbound.

*Dr Augustine Tan*] No. They gave us an average of the two. Anyway, you have not answered my question that 30,000 people —

*Chairman*

867. Dr Tan, there were two points that I raised. Perhaps we could let Mr Tan reply? - (*Mr Tan Guong Ching*) The other one about cars coming in from outside. I think whenever you introduce any restraint measures, there must be some group of people who will be disadvantaged. But so long as the vast majority of people are advantaged, it does not mean that the measure has not been a success. Take the case of the morning ALS. The resident staying inside the CBD has the advantage in the sense that his travel time to a point outside the

CBD is very fast and all because of the morning ALS. Without the morning ALS, he may find it very difficult to get out of his house to go to his place of work outside of the CBD. So it is quite natural that some people will be disadvantaged with the evening ALS.

*Dr Wang Kai Yuen*

868. Mr Tan, earlier when you addressed the issue of shortening the evening ALS, you were saying that the survey data may not be conclusive. Let me put it to you that if the next survey shows the same pattern of travel time and travel usage as the first survey had shown, would you agree that there will be good ground for the shortening of the evening ALS hours? - (*Mr Tan Guong Ching*) As I said just now, if the coming survey shows that the pattern has stabilised, we will certainly review the whole situation. And as my Minister has said, if there is a need to shorten it or if there is a good case for shortening it, we will certainly look at it and study it carefully.

869. No. You are not answering my question. My question is, if the data that was presented by you and the next survey repeats the same pattern, is the ground good enough for the shortening of the ALS? - (*Mr Tan Guong Ching*) If there is a possibility of shortening it based on the first survey, I would say that the shortening will not be very significant.

870. So you will not recommend shortening of the evening ALS? - (*Mr Tan Guong Ching*) I am not jumping to any conclusions. What we are saying is that let us look at the next set of figures which will be available.

*Dr Wang Kai Yuen (cont.)*

871. No. I am saying let us assume that the same figures are repeated. In fact, you do not have to do the second survey. Let us assume that it is the same. What would be your conclusion? Would it be insignificant and there is really no need to do anything or would there be - ? - *(Mr Tan Guong Ching)* From the result of the first survey, it shows that there is still a significant post-ALS period. In other words, the moment the ALS is stopped at 7.00 o'clock there is a fairly large rush of cars coming in.

872. That would be expected? - *(Mr Tan Guong Ching)* The moment you shorten the ALS period, there will be some people, who would have gone in right now, would delay coming in. He would just say, "Look, I might as well wait X minutes more and go in free." In other words, the post-ALS phenomenon could be exacerbated if you try to shorten the period.

*Dr John Chen Seow Phun*

873. But if you look at the current survey, for the outbound traffic, after 7.00 o'clock there is not a surge in outbound traffic although there is a surge in the inbound traffic. If you look at the data given, after 7.00 o'clock, there is not a substantial increase in the outbound traffic although the inbound traffic at the same time has increased to that of 11,000 from 6,000. This means that it would not slow down the outbound traffic? - *(Mr Tan Guong Ching)* What it means is that

those people who are going into the CBD to get to another destination, in other words, the through traffic, people not really going into the CBD for some business, but they are actually just driving through the CBD to another destination beyond the CBD, what it means is that that group has been cut off.

874. So if you were to reduce the ending time of ALS you will probably - ? - *(Mr Tan Guong Ching)* It does not follow. Because that group of persons may say, "Now that you have reduced it, I might, instead of making that circuitous route, decide to work in my office for another 10 or 15 minutes more and then when the ALS is lifted, I will just drive right through." So that person may now decide to go through the CBD rather than using a by-pass route.

875. This is a judgment that you have to confirm? - *(Mr Tan Guong Ching)* Yes, it is a judgment. Which is why if there is any adjustment to be made, I think we have to move quite carefully.

*Chairman*

876. I think Mr Tan has already said that. If there is a case for it, there could be some adjustment but it may not be very significant. He has not defined what is "not very significant." I guess it is anywhere between five minutes to one hour. Maybe we will leave it at that. If there are no more questions, thank you very much for your time? - *(Mr Tan Guong Ching)* Thank you.

*(The witnesses withdrew.)*

Paper 29 - Mr Robert Powell, Senior Lecturer, School of Architecture, National University of Singapore, was examined.

*Chairman*

877. Mr Powell, could you for the record, tell us your full name, address, occupation and citizenship? - (*Mr Robert Powell*) My name is Robert Powell. I live at 6 Jalan Hitam Manis, Singapore 1027. I am a Senior Lecturer in the School of Architecture at the National University of Singapore. My citizenship is British.

*Mr Lim Boon Heng*

878. Among your points of suggestion to the Committee, you mentioned about the MRT. You feel that the MRT can be made better use of through feeder services. Can you just quickly briefly mention what these measures are? - (*Mr Robert Powell*) Let me just briefly introduce myself. Before I came to Singapore, I was a partner in a firm of architects in the North of England and I worked for 10 years on the design of the Mass Rapid Transit system in the UK. When I first came here, I worked on the design analysis of the Tiong Bahru to Clementi Stations. My current interest in the MRT is that I am working on the development guide plan for Kampong Bugis. Let me demonstrate, if I may, with the overhead projector. Kampong Bugis, as you may be aware, is bounded by Kallang Road, Rochor River, Nicoll Highway and by Mountbatten Road. We have the Lavender MRT Station and Kallang MRT Station on the edge of the site. Surveys have shown that people are generally only willing to walk about 450m,

either to or from an MRT station. The survey that I am referring to is one by Bruno Wildermuth who used to be an MRT Manager. Whilst this varies depending on the geography and available bus services, generally people will not walk to or from a station more than 450m. That means that a 450m radius drawn around Lavender will leave part of Kampong Bugis inaccessible to people who are walking. If you draw a similar radius around Kallang Station, you will again see that people on this part of Kampong Bugis will not be willing to walk to the MRT Station. So taking that assumption, we have been looking at the possibility of a personal rapid transit system, which are small electrically driven cars going at headings of about 60 seconds or maybe two minutes between each of them, shooting backwards and forwards on a fixed rail and where four or six people jump in a car and they journey to the MRT Station in that way. I am not plugging any particular system. There are many systems and they can take from four to a dozen, maybe 20 people. The difficulty with an MRT system is that it is constrained by its geometry. If you travel on the MRT, it has to go at 80 kph. Therefore the radiuses are quite big. It does not go everywhere you want it to go. The function of these PRT or people mover systems is that they can work to much tighter radiuses. They can reach the places where the MRT cannot reach and they can feed into the system. For example, we are exploring one which travels about 600m to the centre of Kam-



*Mr Robert Powell (cont.)*

pong Bugis, and then every part of that side of the river between Rochor River and Kallang River, is accessible. In fact, it is within 200m walking distance. Another PRT station would make every part of the other side of Kampong Bugis accessible. The other possibility is, of course, that you can extend the system to pass through the front porch of the National Stadium. You could go a little bit further and perhaps link up with the front porch of the indoor stadium. If the numbers justify it, it could sweep round and another two stations be located on Tanjong Rhu. In this way, you are optimizing the use of the MRT system.

*Mr Lim Boon Heng (cont.)*

879. It is all a question of cost, is it not, how expensive such a system would be? - (*Mr Robert Powell*) I have not done any costing on it.

880. This is just a concept? - (*Mr Robert Powell*) This is a concept. This is one way of doing it. The other way, of course, is to utilize the bus services to feed into the MRT.

881. But I think the advantage to us, considering the topic that we are discussing, of reducing road congestion is whether we can get people to stop using cars and use public transportation. So in the area that you mentioned, I do not know whether it is of that much benefit in reducing the congestion? - (*Mr Robert Powell*) You are suggesting if you use buses as a feeder system.

882. You can use buses. But what I mean to say is that you must identify

areas where the car owners are? - (*Mr Robert Powell*) Potentially, in Kampong Bugis, it depends on the strategy but there could be, shall we say, between 10,000 and 30,000 people depending on the adopted strategy. They are all potential car users. If you can provide a system which makes it possible for them to walk or to go by personal rapid transit, then you have theoretically reduced the number of cars on the road. If I were to go back to the early studies on the MRT line from Tiong Bahru to Clementi, Clementi is ideal, because it is right next to a bus station and is in the middle of a housing layout. But the Buona Vista Station, for example, is on the periphery of Ghim Moh. It is certainly further than 450m to walk to Holland Village. Yet these are the centres where you could draw people from to use the MRT.

883. What we hear is that for the Buona Vista case there is a feeder bus service and is not breaking even. It is actually losing money. That is using existing buses. Whereas if you have to construct one of your systems, it might be far too expensive and even less viable? - (*Mr Robert Powell*) I admit that this would not be workable in all circumstances. It has to be carefully studied to see which area would merit using the PRT system.

*Encik Yatiman Yusof*

884. Mr Powell, has this concept been applied anywhere in the world and proved to be successful, apart from connecting terminals to the airport? - (*Mr Robert Powell*) I am not personally familiar with any that are yet fully operational.

885. We have, for example, in Changi Airport, a similar concept being applied where there is high density people movement? - (*Mr Robert Powell*) That is right.

886. But has there been a similar attempt to non-airport areas where this concept has been applied successfully? Has there been a proof? - (*Mr Robert Powell*) The Dockland Light Rail System in London's dockland, I believe, works on the principle of linking into the London Underground System. I am not aware of any other system working at the moment. There are a few which are really quite new. There are a number of systems which have been developed, again I am not plugging any particular one, but this is the one (illustrated on overhead projector) developed by an American company. The research has been done. We are not suggesting technology that is not available. It is available technology. It needs costing out. It needs to be considered. I agree with you that it would not be usable in all circumstances. You have to have the numbers, the density of population to justify its use. I was not quite sure of the format of this discussion today and I did not come along armed with a lot of information. But I would be quite happy to find out that information for you and clarify or add further information on it.

*Dr Wang Kai Yuen*

887. Mr Powell, in your submission, you have advocated the halting of construction of new towns in Singapore. Because, in your view, you felt that

building new towns increases the need to travel, deplete energy resources and encourage motor car usage. But that might be a very narrow view of why new towns should be built. Would you like to elaborate on this? - (*Mr Robert Powell*) Clearly, that strategy is not one that is only tied up with transport planning. It goes much further than just the question of transport planning. It is more specifically tied up to the allocation of resources, giving people a choice of the environment they live in. In very simple terms, it is an option of not covering the island with new towns but allowing a variety between built-up urbanised areas and the existing green areas. I am not pushing it simply because of transport planning. But I recall going to a conference a year ago in Japan on rapid urbanisation and Edmond Bacon, a very famous city planner from the United States, gave the keynote speech. I was very impressed by his notion that we plan our cities without taking into account - it seems without taking into account - that we are using finite resources like oil. Oil will run out some day. Different experts put different figures on this but one day, maybe in the year 2040, the last NTUC taxi will come to a stuttering halt on the Ayer Rajah Expressway and that will be the end of petrol. As such there is a strong argument for making cities compact and reducing usage of petrol.

*Chairman*

888. Any other questions? Thank you, Mr Powell? - (*Mr Robert Powell*) Thank you very much.

*(The witness withdrew.)*

Paper 11 - Mr Shriniwas Rai of Hin Rai & Tan, No. 2, Finlayson Green #07-05, Asia Insurance Building, Singapore 0104, was examined.

*Chairman*

889. Mr Shriniwas Rai, could you, for the record, tell us your name, address, occupation, your firm and your citizenship? - (*Mr Shriniwas Rai*) My name is Shriniwas Rai. I am an advocate and solicitor practising at Asia Insurance Building. I am a partner in Messrs Hin Rai & Tan. I am a Singapore national.

*Mr Lim Boon Heng*

890. Mr Rai, you have made a number of suggestions. And one of your suggestions, you admitted, was radical, ie, your proposal with respect to mandatory monthly contributions to finance the MRT and bus operations. You even suggested rates that each individual should pay. Can you give us the rationale behind this proposal? — (*Mr Shriniwas Rai*) The rationale behind the proposal was that it will allow those motorists who are using their cars to work and to travel - let us say, they form 25% of Singapore's population who will eventually know that they have to pay for it - to change to public transport. But the other major premise on which I went towards the idea was that it is ticketless, convenient and it can be worked out economically provided a team is formed to study the system. The fact that it is radical does not mean that we have to discard it. I am suggesting this, as a layman, a view I am putting before this Committee. Let me just illustrate. It takes at least three to five seconds for a passenger to take a bus. He puts in the

coin and then he takes his seat. Multiply that by 100 passengers and consider the time that is taken up and the hassle of looking for your change. In fact, SBS already has got a system where they allow people to have a pass and I am of the view that in this way the MRT and the bus could be integrated into one system. And eventually it will even be a boost to tourism because I do not think anywhere else in the world has got this system. Since writing to the Committee, I have changed my view on the elderly people. They must not be allowed to travel free. They should be asked to pay a certain amount of money. Other than that, I am proposing that this Committee may wish to consider this point. I agree that it is radical. But the fact that it is radical does not mean that we have to throw it away. Some other aspects of it could be utilised.

*Dr John Chen Seow Phun*

891. Mr Rai, do you not think that those people who travel less will be penalised by your proposal because of mandatory contributions? Is it unfair to them? - (*Mr Shriniwas Rai*) Whether it is fair or unfair, you have to look at the social need of the society. Let us look at the Land Acquisition Act. The Act is for a good social purpose. Land was taken from land owners and we made Housing and Development Board a success. Similarly, those who can afford it, those earning \$5,000 and above have to pay \$200 and yet get free MRT and bus rides, looking at it from a personal angle, I think it is workable. It may be inequitable

but that is a fact of life. A lot of things are inequitable. But we are looking at a problem at a national level, not at a sectoral level.

*Encik Yatiman Yusof*

892. Mr Rai, how can you make this radical idea, firstly, workable; secondly, politically sustainable; and thirdly, attractive enough to be successful, knowing full well that MRT serves not even half of the Singapore population? - (*Mr Shrinivas Rai*) The MRT and bus form the bulk of the public transportation system and the third line is coming in. I think it was even considered in Parliament, reading through the Hansard. If the buses are allowed to grow at the pace they are growing, they will clog the road as well. I envisage that the MRT will eventually take over more than half of the Singapore's travelling population. I concede a political price has to be paid. But given the time and education and if the people realise it is workable and attractive, why not? A lot of ideas politically are not saleable but if they are packaged well, they sell. I leave it to the Committee. I am no expert in this field. I am a layman as far as politics is concerned.

893. I thought I can tap your expertise from a layman's point of view when I asked that question? - (*Mr Shrinivas Rai*) I have to concede that I have discussed this matter among friends. Some find it favourable. Of course, those who are going to pay and those who own a car find it not favourable. But they think there is merit in the proposal.

*Dr John Chen Seow Phun*

894. You are a strong advocate of a tight car population control. In fact, you recommended that the car population be cut down to 150,000 which means that we will have tremendous under-utilisation of the existing roads. What do you have to say on that? - (*Mr Shrinivas Rai*) Let me add this point. I am thinking of the 250,000-odd cars that we have now. I am looking at people who are going into the market, ie, young graduates. Every Singaporean graduate is aspiring to have a car. If these people continue to buy cars at the rate we are going, then we are going to have another 10,000 extra cars per year. Added to this, plus 150,000 cars, we are going back to square one where we will have possibly more cars. That is why I would rather err on the conservative side than to allow the status quo. But I feel that unless the public transportation system is solved, unless you can give the public good and comfortable buses - MRT of course is doing the job - you are not going to easily win over the car owners. Unless they are convinced and converted to this, I think we are going to have real problems.

895. So you are advocating that Government should take strong measures to force people to give up their cars. Otherwise you cannot reduce the number? - (*Mr Shrinivas Rai*) I may not want to use the word "force" in the sense of legislative force. But I am thinking in terms of persuasion, failing which, of course, we should have disincentives. One of the problems is this. Why allow public car parks in the city. A huge chunk of land at Market Street being wasted? I think we should have disincentives, as we have tried to achieve in population

MINUTES OF EVIDENCE

337

3 NOVEMBER 1989

338

*Mr Shriniwas Rai (cont.)*

control, which many people thought 20 years ago was a very difficult task. Yet, I think we have succeeded. Given the time and the will, maybe not 150,000 cars but even with 200,000 cars, I think we would have achieved something.

*Encik Yatiman Yusof*

896. Mr Rai, going by the fact that one-third of these 250,000 vehicles are commercial vehicles meant to transport goods from place to place, are you advocating for a reduction of only private cars or a proportional reduction of all vehicles? If it is the second choice, would it not severely affect our economy? - *(Mr Shriniwas Rai)* One of the facts is

that if you allow the present situation to go on, it will affect the economic condition more unfavourably because transportation of man and material is going to be delayed. But I have to concede that certain incentives have to be allowed for commercial vehicles for transporting goods. But the mechanism has to be worked out.

897. You are saying we should retain them but reduce the private car population? - *(Mr Shriniwas Rai)* That would be a more favourable point.

*Chairman*

898. Any more questions? Thank you very much, Mr Rai? - *(Mr Shriniwas Rai)* Not at all.

*(The witness withdrew.)*

Paper 22 - Mr Paul Dixon of 119 Sunset Way #04-01, Clementi Park, Singapore 2159, was examined.

*Chairman*

899. For the record, could you state your name, address, organisation, occupation and citizenship? - (*Mr Paul Dixon*) My name is Paul Dixon. I live at 119 Sunset Way, #04-01, Clementi Park. I am a British citizen. I am employed by the Mass Rapid Transit Corporation as an Assistant Resident Engineer for telecommunications.

*Mr Lim Boon Heng*

900. Mr Dixon, in your paper, you proposed a park-and-ride scheme to feed the MRT stations. You mentioned that being an MRT employee, you have free parking in MRT stations and you often make use of the MRT and you think that it would also be a scheme which motorists would like to have. But if you had to pay for parking at the MRT station, then do you think you would still find this scheme attractive? - (*Mr Paul Dixon*) It would depend on how much you need to pay for parking. I think in the middle of town, the cost of parking a vehicle will be quite expensive. Whereas if we had free parking, I suggest free parking near MRT stations out of town, then it would not cost you anything to leave your car in the car park. If you then go into town, it would cost you a dollar or so to travel on the train, come back, and then drive home. So I would prefer to park out of town.

901. Who would pay for these free car parks? - (*Mr Paul Dixon*) As stated in my submission, the cost of these car parks could be gained from car taxes. At

the moment, there are big car parks which have been built near the MRT stations such as Pasir Ris, Jurong, Chua Chu Kang. I suggest that if you make these car parks free parking, it would be attractive for people to actually park their car near the MRT stations and use the public transport, rather than the hassle of driving into town, park their car and having to pay for the parking.

902. But how would you justify subsidising motorists by providing them with free car parks and not subsidising the bulk of the population who are not car owners? - (*Mr Paul Dixon*) The bulk of the population would have the option of whether they would park at a free car park or not. I think most people, assuming it is free, will go for it.

903. What I mean to say is that the number of people who own cars is a minority. The majority of people do not own cars. So how do you justify politically subsidising car owners with free car parks? - (*Mr Paul Dixon*) As I said in my submission, the cost involved could be borne from car taxes, in which case the cost would be borne only by the drivers themselves and not by the rest of the population.

904. Are you suggesting then that we should increase the car taxes in order to provide these free car parks? - (*Mr Paul Dixon*) You could look into the cost of actually building a car park and attribute it to a certain amount of car tax. I do not think there would be a lot of money involved to do this.

*Encik Yatiman Yusof*

905. You are also suggesting that we set up a private company to provide bus feeder service from HDB estates to MRT stations? - (*Mr Paul Dixon*) Correct.

906. Do you think that this would be a viable approach economically? - (*Mr Paul Dixon*) Yes, I think it would be a very viable approach. As I explained in my submission, I live in Clementi Park which has a feeder service running at regular intervals. There is a time-table, so for a given time of the day, you know that this feeder service is running backwards and forwards. As such this system does work. It is viable and it is reliable. It is not like occasions when you want to go for a taxi and cannot get one because it is raining, or you cannot get them on the telephone. The feeder service is regular and we can get home from the MRT station, and it is a very good service.

*Dr John Chen Seow Phun*

907. How often is the service? - (*Mr Paul Dixon*) It runs at the moment about 24 times a day, from the Clementi Park MRT, commencing at 6.30 in the morning. I have a schedule here.

908. Frequency, interval of how many minutes? - (*Mr Paul Dixon*) It varies between about 15 minutes and half an hour, depending on what time of the day it is.

909. How much do you pay for the service? - (*Mr Paul Dixon*) It works out to about 50-60 cents a journey.

*Chairman*

910. Does this service pay for itself? - (*Mr Paul Dixon*) It has been running

now for two or three years and from what I would like to believe, it does pay for itself.

*Dr John Chen Seow Phun*

911. Is it because in Clementi Park you have two condominiums and you have a large number of people owning private properties? - (*Mr Paul Dixon*) There is a large number of people in Clementi Park and it is basically one condominium. But we have a lot of maids also coming in and out everyday. There is a lot of traffic from people coming in. That is why it is used quite a lot.

912. What about those in the landed property estate? - (*Mr Paul Dixon*) They do not use it. They are not allowed to use it. It is only for the residents of Clementi Park. I think if they promote a regular service which is open to everybody, I am sure people in the private estates would also use it.

913. But in other landed property estates without condominiums around, the number of people will not be that many? - (*Mr Paul Dixon*) That is why you need to look at the actual route that you are deciding upon and make sure that the bus is actually travelling to a concentrated area.

*Encik Yatiman Yusof*

914. Mr Dixon, perhaps the example you mentioned is unusual because the experiment made on Henry Park residents and also the admission made by the Singapore Bus Services on providing feeder service in high density population areas have not shown that they are self-paying? - (*Mr Paul Dixon*) This may be

because there are other options available in these areas. If you have SBS buses and various other modes of transport, you have got a big choice. Whereas in Clementi Park we only have just one shuttle service. If you have no option, you are more inclined to use that one particular service.

*Dr Wang Kai Yuen*

915. Mr Dixon, I think the example of the Clementi Park Shuttle Service is not as simple as you have portrayed. The way I understand it is that the residents of Clementi Park subscribe to a monthly pass. I cannot remember exactly how much it is, \$10, \$20 per pass. So only holders of the monthly pass can more or less travel on that bus. In other words, that shuttle service is heavily subsidised by the residents. It is not paid on a per trip basis. If the service were to be run on a per trip basis, in other words, every time a person

gets on the bus, he pays 50 cents or 60 cents, it might not be viable? - (*Mr Paul Dixon*) Your statement is not quite correct because there are two kinds of passes. There is the regular pass, like you have explained, where there is a monthly fee to travel every day. Whereas the pass which I use is an occasional user pass. The driver punches a hole on the ticket every time I use it.

916. In other words, the point has been made that there is a base level of support for that service. In other words, there is a subsidy on the per trip travel? - (*Mr Paul Dixon*) Correct. There again, you need to look at the traffic that you can expect to get from a particular HDB or private estate to confirm if it will be viable.

*Chairman*

917. Thank you, Mr Dixon? - (*Mr Paul Dixon*) Thank you.

*(The witness withdrew.)*



Paper 29 - Mr Jack Tan, Senior Lecturer, School of Architecture, National University of Singapore, was examined.

*Chairman*

918. Mr Tan, for the record, could you state your name, address, occupation, organisation and your citizenship? - *(Mr Jack Tan)* I am Jack Tan. I am a Singapore citizen. I live at 105 Cairnhill Circle #09-105, Singapore 0922. I teach at the University of Singapore, School of Architecture, first year.

919. Mr Tan, you are not very happy with the bus service in Singapore. Can you briefly tell us your main sources of unhappiness? - *(Mr Jack Tan)* I think I am speaking from a biased point of view because I am a kidney patient and I find taking buses very difficult. Because of my handicap, I cannot walk properly and I have not got the strength. Even in my younger days, I found taking buses was quite a difficult problem.

920. Is your problem in climbing up the bus or discomfort in the bus? - *(Mr Jack Tan)* I find it physically quite difficult in climbing up. The jerkiness of the bus, the rudeness of the conductors and the drivers, I find it very undesirable. It is not a very human way of getting around.

921. Is that a problem experienced by other people? Have you taken buses in other countries? - *(Mr Jack Tan)* I have been to the UK and other countries. I found that the bus drivers are much more polite. They approach customers on a different level of courtesy. They are much more courteous and they treat people much better. But here I think the passengers are not treated well. That is my personal opinion.

922. Have you taken buses in the United States? - *(Mr Jack Tan)* Yes. England, the United States and also in Europe.

923. How did you find the courtesy of bus drivers in the United States? - *(Mr Jack Tan)* They are a bit rougher than the English. But it depends on whether you are in the city or in the rural areas. The rural areas are okay. The city is a bit rough.

*Mr Lim Boon Heng*

924. Mr Tan, would you agree that the points of view which you have put in your paper represent the views of maybe a minority of people? - *(Mr Jack Tan)* It is actually my own personal view.

925. I think I can understand your problem being a person with a medical condition. But you made the general statement in your paper that a car is an indispensable item for a busy housewife who has got to go to the market, who has got to fetch children to school and send children to ballet lessons and so on. But do you not agree that the majority of Singaporeans actually do all that and use the public transportation system? - *(Mr Jack Tan)* Yes. But I am talking from the point of view of the more well to do people because I have no experience of the poorer people. I am only talking from my own point of view. I am talking of those more affluent people. They have children and they have to educate them. They have to bring them here and there.

926. But if the majority of people in Singapore can do all that with the public transportation system, how is it that a minority of people cannot do the same? - *(Mr Jack Tan)* A lot of them cannot afford it.

927. They cannot afford to take a bus? - *(Mr Jack Tan)* No, to buy a car. If they can, I think they would. The main thing that they do not take a car is because they cannot afford. It is not that they do not want to.

928. My point is that you say that the car is indispensable. But I am saying that the majority of people have demonstrated that it is not indispensable because they still get around with public transportation. My point here is that the car is not really that indispensable, as you put in your paper? - *(Mr Jack Tan)* I think I agree with you, but they cannot do so much as what a person with a car can do. It is a more efficient way of using up their time, especially the educated mothers.

*Mr Lim Boon Heng*] Thank you.

*Chairman*

929. Can we paraphrase you by saying that you think buses should be as comfortable as cars that the richer people can afford? - *(Mr Jack Tan)* I think if you make buses more comfortable and more human, more people will take to it. That is my opinion.

930. How comfortable is comfortable? Take away the rudeness of the driver which we hope our courtesy campaigns will improve. How comfortable would you like our buses to be? - *(Mr Jack Tan)* Our buses are very big and they are very high up.

931. You prefer smaller buses? - *(Mr Jack Tan)* The chassis is built to be very high up. In fact, they are lorries that are converted into buses. The real buses can be much lower. The centre of gravity could be lower so that climbing up need not be so tedious and dangerous for old people especially. I am actually talking for handicapped people and older people. But I think normal people can still climb up because their steps are high.

932. I think that is a good point which we hope the SBS will take into account. Are there other factors? - *(Mr Jack Tan)* I think it is possible to lower the centre of gravity, by designing a chassis that is lower.

*Dr John Chen Seow Phun*

933. You gave an anatomy of a traffic jam. What do you think we should do to reduce the problem? - *(Mr Jack Tan)* This problem, as you see, is multi-faceted. It deals with a lot of factors. One of the factors is that the way we value our land in the city. We say the centre costs more and the outside does not cost so much. As a result, because it costs more, developers have to build more in order to justify the cost involvement. So it is more or less a self-defeating formula. Because if you build more, then naturally you need more traffic to service the centre. So I cited examples like the Raffles City where we built, I think, on a 3:1 plot ratio, and thereby generating a lot of traffic. I also mentioned that because there are certain functions like weddings and conference hall activities and all that, they tend to be "city" type of activities. The concept of a city is that you draw people in. You want a lot of big crowds because without a big crowd it would not

*Mr Jack Tan (cont.)*

be a city. So the mere fact that you have this city requirement in a centre like Raffles City is that traffic will be attracted to this centre. And as such, it is a traffic congestion problem straightaway once you have this centre. The idea is to locate these centres in places where they can accommodate the parking as well as the traffic because these are definitely traffic generating. To locate it in Bras Basah Road, as we know, is already very problematic. I feel that when we look at this sort of problem, we have got to look at the wider implications of traffic. That is the first point. The second point is that if we take the congestion at Orchard Road which I spent some time in detail, you will see that the whole area is a big jumble. First, we have about seven or eight crossroads that have traffic fights. If we just do a simple sum and give a 50% priority on each side of the traffic lights, you will find that 50% of the efficiency of that highway is gone already. Then we have feeder roads that feed into Orchard Road. I have not counted how many of them but we can make a very detailed study and we can see the further the efficiency drops. Then we have pedestrian ways - one at Yaohan and one at all the shopping centres. Then we have entrances and exits of large hotels. There

are about 15 of them which I listed all along the way and these also have tourist buses and taxis going in and out. And wedding dinners take place at 7.00 pm. You can see it is a picture of a city which is actually congestion. We should not complain if Orchard Road is congested because we created it. We should accept the congestion there. If we do not want to have city activities, then we do not have congestion. My suggestion is that we stagger, if possible, some of the wedding dinners from 7.30 pm to 8.30 pm and some dinners start at 9.30 pm so that you do not have this problem. But can we accept it socially? What is it like to start a wedding dinner at 9.00 o'clock? It is ridiculous because you will end up at 12.00 midnight. So there are problems. That is why in very intensive use in the city sometimes people have the idea of a 24-hour concept. There is activity running 24 hours so that housewives can shop at midnight if they do not feel sleepy. But whether this is socially good or bad is another thing. I think we need to debate about it. This is the idea that crops up when you start to use things intensively. We have to accept it.

*Chairman*

934. Thank you very much, Mr Tan?  
- (*Mr Jack Tan*) Thank you.

*(The witness withdrew.)*

MINUTES OF EVIDENCE

351

3 NOVEMBER 1989

352

Paper 45 - The representatives of the Singapore Lorry Owners Association were examined:

Mr Lee Kok Chin, Chairman

Mr Francis Lee, Vice-Chairman

Mr Lim Quee Huat, Hon. Secretary

Mr Fang Loo Khuay, Association Adviser

---

Interpretation assisted by Mr Sung Ekee.

---

*Chairman*

935. Gentlemen, can you, for the record, state your names, addresses, citizenship and occupations? - (*Mr Lee Kok Chin*) I am Lee Kok Chin, Chairman of the Association. I live at Blk 13, Eunos Crescent #05-279, Singapore 1440. I am Managing Director of Lee Hup Huat Transport (Pte) Ltd. (*Mr Francis Lee*) I am Francis Lee, Vice-Chairman of the Association. I live at Blk 12, North Bridge Road #21-3958, Singapore 0719. I am Managing Director of Beng Huat Warehousing and Transportation (Pte) Ltd. (*Mr Lim Quee Huat*) I am Lim Quee Huat, Hon. Secretary of the Association. I live at Blk 20, Bedok South Road #02-33, Singapore 1646. I am the Managing Director of Allied Container Services (Pte) Ltd. (*Mr Fang Loo Khuay*) I am Fang Loo Khuay, Adviser to the Association. I live at Blk 807, King George's Avenue #14-252, Singapore 0820. I am Director of Sun Commercial Pte Ltd.

936. Are you all Singapore citizens? - (*All witnesses*) We are all Singapore citizens.

*Dr Augustine Tan*

937. Gentlemen, I see from your submission that your members service the import and export trade, or very largely so, about 70% of your business, and therefore that necessitates your vehicles going into the PSA area which I presume is a very heavily used area in terms of vehicles. You have listed in your memorandum a number of problem areas that have added to your business cost. Perhaps you would like to briefly explain to us? - (*Mr Francis Lee*) Mr Chairman and Members of the Committee, first, allow me to express our thanks for inviting us to express our views here regarding our transport problems. There are a few important points in our submission. The more important points I would bring up later. I would draw your attention to paragraph 5 of the submission which refers to the Area Licensing Scheme which has been in force since a few months ago. This affects our commercial vehicles entering the ALS zone. We would like to stress that entry into the ALS zones is not something that we, our trade, can decide on our own. In other words, our line of business is a service line. The time for transportation of goods

*Mr Francis Lee (cont.)*

or freights is not under our control. We have to go according to the required time. Take, for instance, shipping of freight or transportation of commercial goods. This will have to depend on the decision and arrangement by the factories or the businesses concerned. The shipping time-schedule is fixed. We cannot alter the time. It is all fixed and we cannot move it either forward or backward. Then about the loading and unloading of commercial goods, it also depends on the timing of production of the factories or the businesses concerned.

*Dr Augustine Tan (cont.)*

938. Excuse me. Could you just come to the point? What is the problem you are coming to? We realise that you are a mover of goods in and out of PSA but I am told the PSA area is outside the CBD. So how does the ALS affect you? - (*Mr Francis Lee*) Although PSA is outside the CBD restricted area but after unloading the goods the conveyors will have to move into the CBD area or the conveyors will have to move goods out of the CBD area into the PSA area.

*Dr John Chen Seow Phun*

939. How is it? I would like to ask whether the warehouses are inside or outside the ALS area? - (*Mr Francis Lee*) Some of these warehouses are inside the ALS zone but the more important commercial concerns and trading companies are inside the restricted zones, while big factories are outside the CBD, in industrial zones. So in transporting goods, it is very necessary to go into or

out of the CBD or ALS zones as well as the PSA areas. Some big manufacturing factories or big commercial concerns have their establishments also in the ALS areas.

*Dr Augustine Tan*

940. But your vehicles are not? - (*Mr Francis Lee*) Bigger ones are in the industrial area.

941. But your vehicles are not prohibited from entering the CBD during the ALS hours. You merely have to pay the fee. So the important question is how significant is the ALS fee as a percentage of your cost. In other words, does the payment of a ALS fee raise your cost so significantly that you are uncompetitive? - (*Mr Francis Lee*) There are several factors affecting our cost. The payment for entering into ALS areas is one of them. Perhaps in this respect it causes more damages to our business than other factors. This ALS system not only affects us adversely but it also affects the policy itself and is not quite good in its side effects by its implementation.

942. In what way? - (*Mr Francis Lee*) There are two questions affecting us. One of which is that our vehicles have to go round the restricted zone and in that way it causes serious congestion along some of the peripheral roads.

*Dr Wang Kai Yuen*

943. May I ask about the cost each lorry will incur in one day's service? - (*Mr Francis Lee*) We use different kinds of vehicles. They are of different sizes and different builds for different types of work. They belong to different owners. They have different costs and their types

of services also differ from one another. So, there is no standard cost.

944. That I understand. Perhaps you can give us a picture generally of what the cost is like taking into account factors like depreciation, etc? - (*Mr Francis Lee*) In this case, let us talk about the ordinary 10-tonne lorry. The cost for each 10-tonne lorry, including depreciation, will be at least \$200 per day. The figure given by me is rather subjective. That is my general observation. Perhaps there are different companies which have different kinds of costs involved. The cost I have just mentioned includes the cost of a driver.

945. In other words, with the ALS in implementation the possible additional cost will not be up to 2%? - (*Mr Francis Lee*) We agree to this. But what is more important is that it may cause some difficulties in rendering our services and also in the field of productivity, as productivity will also be affected adversely. For instance, to buy a \$60 season pass for a lorry or for a conveying vehicle to enter the ALS area, it may not be productive because you do not know how many times you have to enter the restricted zone in a month. So economically speaking, it is not very viable. Secondly, if you were to buy a \$3 pass just to enter for the occasion, then there would be several questions arising. The first point is if the conveying vehicle is too big, then when you line up to buy the pass, you will be blocking the way, causing a long queue behind you. So having to queue up, that will be detrimental to productivity.

*Dr Augustine Tan*

946. But that is a matter of choice. You could buy a season ticket for the whole month at \$60 or you can buy a daily ticket. So you do not have to queue up everyday if you do not want to. You have chosen to emphasise the negative aspects of the ALS. But what about some positive aspects? Because we have been shown figures that the travelling speeds along most roads have increased. So if the roads are less congested, your lorries can move faster, you can have more business and therefore make more money. Do you agree with that? - (*Mr Francis Lee*) We have also given this matter some consideration. There are some advantages. But after our experience for the past few months, we have found out that the matter is not so simple as it appears. The matter has something to do with manpower. Even if you get a driver to buy the season pass for entry, they will also be faced with certain problems. In relation to the cost we expended, we generally expect some return to compensate. Therefore, there will also be the problem with our customers. Furthermore, the driver, just to save the cost of \$3 would go into the ALS area before the restricted time. As I have just said this is a problem with manpower.

*Mr Chiam See Tong*

947. Mr Lee, your representation seems to be a complaint of high cost. Of course, in the public interest, we would want less lorries on the road to prevent congestion. Could I put it to you that in fact your problem is one of productivity? I notice that according to your representation, 60% of your members have only

## MINUTES OF EVIDENCE

---

357

3 NOVEMBER 1989

358

---

*Mr Chiam See Tong (cont.)*

two or five vehicles and only 15% have 10 to 30 vehicles. You will remember that in 1971, the Chinese bus companies were merged into four companies and, finally, in 1973, they were merged into one bus company. Have your Association members thought of merging into one

company to make it more productive? - (Mr Francis Lee) I think I cannot express my personal views on this matter. We have to get all the views of the members concerned.

*Chairman*

948. Thank you very much? - (*Mr Francis Lee*) Thank you.

*(The witnesses withdrew.)*

## MINUTES OF EVIDENCE

359

3 NOVEMBER 1989

360

Paper 12 - Mr Ole H Dyrhaug of Trans-Link Express Pte Ltd, #03-18/21 Pasir Panjang Wharves Building, 15 West Coast Highway, Singapore 0511, was examined.

Chairman

949. Good, afternoon. Mr Ole Dyrhaug, could you for the record give us your name, address, occupation and your citizenship? - (Mr Dyrhaug) My name is Ole Dyrhaug and I am a Danish citizen. I am a Permanent Resident of Singapore. I am the Managing Director of a freight forwarding company called Trans-Link Express. I live in an apartment at 214 Dunearn Road.

950. Could you, for the record, just in case you do have an interest, state whether you have any interest in the manufacture or distribution of bicycles? - (Mr Dyrhaug) Absolutely not.

Encik Yatiman Yusof

951. Mr Dyrhaug, you came up with a suggestion that we should encourage greater usage of bicycles, to the extent of using it almost everywhere. That is your contention. Taking into account that in Singapore speed and safety are two crucial factors for human mobility, do you think that the bicycle could provide these two requirements, safety and speed? - (Mr Dyrhaug) If I may precede my answer with a few remarks. I am not an expert on land transport. My know-how is more on sea transport. But what I have to say is as a concerned resident and also very much influenced by my experience during a lifetime as a citizen of Denmark, because in my country bicycling is a way of life. I can mention that in Denmark alone, more than 1.2 million people use the bicycle

every day as a means of transport. In the city of Copenhagen, 30% of all voyages or trips are by bicycles. When we grew up, we were not transported from our homes to our schools by bus. We almost always either walk or take a bike, whether it snows, whether it rains, whether a hard wind is blowing, whether it is in the middle of the winter. The kids in our part of Northern Europe get hardened by getting to school. Whereas in Singapore, in my opinion, the kids are treated in a very soft way by being picked up by bus.

952. Before you proceed, there is a major difference in terms of population density between Copenhagen and Singapore. Do you agree to that? - (Mr Dyrhaug) It is comparatively safe to bicycle in Denmark, whereas in Singapore it is very very dangerous. I pointed that out in my submission. As I see, the issue of Singapore's traffic now, I would not suggest that anybody starts bicycling in Singapore today. But what I am recommending is that Singapore for the next 10-20 years, realistically look at bicycling as an optional way of moving about. The advantages of bicycling are quite obvious because it is very cheap. From a national point of view, it is also economical. It is healthy. It is quite fast when you consider how the traffic congestion is building up. Regarding safety, I think that the only way bicycling can be a realistic option for Singaporeans is if the city planners over the next 10-20 years, gradually build bicycle lanes and



Mr Dyrhaug (cont.)

gradually make regulation of the intersections in such a way that bicycles can pass safely. It is not something new. If you go to Scandinavia, Holland or California, you will see how very advanced communities take into their planning this means of transport as a realistic possibility.

Encik Yatiman Yusof (cont.)

953. For your own information, Singapore in the late 50's and early 60's did have quite an extensive system of bicycle paths that connected Paya Lebar down to the city area. It was very extensive? - (Mr Dyrhaug) My concern is that it should be a realistic choice. I could see a Singaporean living in one of the new towns. He has a choice of walking to the bus stop or walking all the way to the MRT or to take the bike. The bike would be parked in the void deck and he would go by his bike to the MRT where there would be special covered stalls for storing his bike. Then he travels by the MRT, for instance, downtown Singapore, and there in another area, there are special stalls where he can take his other bike. He does not have to take it on the train. He has another bike there which takes him to his place of work. Or when he comes to the city area, he goes by bus or taxi or walks, or whatever. In the same way, within the suburbs, you would see housewives, school children, teachers, move about between home and school, home and community centre, home and shopping area, on bikes. Because it is safe. The traffic has been planned in such a way that they can do it. Everywhere there are racks where you can place your bike. In

this way, you will have a much more varied way of moving people about. Whereas, if nothing is done, I think you will experience in 10 years' time that it comes to a complete stop. Therefore ways have to be found whereby you can change the overall picture. After you kindly invited me to mention my viewpoints to you, I asked the Danish Ambassador in Singapore whether he could supply me some material from Denmark on this, and the Danish Minister for Transport kindly sent me this stack of papers which gives reference to an impressive six tomes of technical literature on bicycling, on how to construct lanes, how to dimension the lanes, what is the break point for letting a road being jointly used by bicycles and cars. It is all dealt with in a very serious way by the Copenhagen City Council. Therefore, I suggest that somebody in Singapore make it a point to learn more about it, that a special committee proceed to Denmark where I know the Danish Minister for Transport would be very pleased to open all their records and make their experience available. And the same applies to Holland, which also is famous for its well-planned integration of the bicycle into the total traffic pattern. In California, there are also two cities, one is Davis, the other is Palo Alto, which have been mentioned specifically in a report by the World Watch Institute. It is one of the few recent studies of bicycling across the world. This study could also be looked at in Singapore to get more information on what I consider must be the future pattern of city traffic, not just cars, but also MRT, buses, and bicycles.

Dr John Chen Seow Phun

954. Mr Dyrhauge, can I just ask you a question? Do you have traffic congestion in Denmark? - (Mr Dyrhauge) Yes, we have.

955. Despite the wide use of bicycles, you still have congestion? - (Mr Dyrhauge) I can only venture an opinion that the congestion would be much worse if there were just a few bicycles.

956. How is the level of congestion in Denmark compared to that of Singapore? - (Mr Dyrhauge) Much less. It is also because they have much more area.

957. I mean in the city? - (Mr Dyrhauge) In the city, the congestion is, in my opinion, less. For instance, when I compare with visits in Copenhagen, say seven years ago and today, it is more or less the same kind of congestion. You have the rush hours where you have a sudden build up in front of the traffic lights. But it has been more or less sort of a constant kind of picture. Whereas in Singapore during the last seven years, if I compare, it is getting progressively worse.

Mr Chiam See Tong

958. Mr Dyrhauge, in Denmark, who are the people who use bicycles? - (Mr Dyrhauge) I would say that during the Second World War everybody did, because there was no gasoline. After the war, we had what I would call an "immature period" because to have a car became a status symbol. As the years went by, you would see that the bicycle was becoming less of a status symbol, and

the reason is that it is healthy. If you see a bank manager or a politician on a bike, everybody admires him for his guts and his healthy way of conducting his life. Many people buy stationary bicycles and cycle in their bedrooms. Why not use all that power to get from your home to the MRT station? It is logical.

Dr Augustine Tan

959. We have a little problem here. It is that we sweat in the heat unlike the colder countries. I lived in Palo Alto when I went to school at Stanford and it is lovely to cycle there because it is nice and cool. But here, unless you provide showers at the MRT station or at the office, it is going to be a problem. You will sweat and stink? - (Mr Dyrhauge) I admit that nobody would cycle in Singapore between 11.00 am and 3.00 pm because they get very uncomfortable. What I am suggesting is that cycling from home to work in the cool hours of the morning is absolutely much more comfortable than if you should negotiate the Danish roads on a cold January night with ice, snow and storm. I think Singapore is a wonderful country also from that point of view.

Chairman

960. Thank you, Mr Dyrhauge, for your very interesting submission. We will pass on your suggestions to the Ministry of Communications? - (Mr Dyrhauge) Thank you very much. I can mention in this connection that in a recent article in Time, it says that even Cabinet Ministers in Norway cycle to work.

MINUTES OF EVIDENCE

---

365

3 NOVEMBER 1989

366

---

Chairman] We will suggest to the  
Minister for Communications to cycle.

Chairman

961. Six tomes of it? - (Mr  
Dyrhaug) I will gladly make it available  
to you and the Danish Embassy is also  
ready to give more details.

Mr Chiam See Tong] Mr Dyrhaug,  
could we have a copy of your literature?

Chairman] Thank you very much?

(The witness withdrew.)

Paper 14 - Mr Paul S Y Law of 400 Orchard Road #06-15, Orchard Towers, Singapore 0923, was examined.

Chairman

962. Mr Law, for the record, could you state your name, address, occupation and citizenship? - (Mr Paul S Y Law) Good afternoon. I am an international Sales Manager of Carboline SEA Pte Ltd at Orchard Towers. My name is Paul ShauYee Law and I travel quite a lot between the United States and northern Europe.

963. And you are a Singapore citizen? - (Mr Paul Law) I am a US permanent resident.

964. You are a citizen of which country? - (Mr Paul Law) British subject, Hongkong.

Encik Yatiman Yusof

965. Mr Law, in your presentation, you came up with a very interesting suggestion, among others, that you advocate for greater use of ferries, hovercraft and hydrofoil to reduce traffic congestion, especially to cater for the need of the population residing near the coastal areas. Have you any experience or knowledge in which this concept is applied successfully in other parts of the world, except for inter-island transportation and maybe across-the-river transportation, where the tide is not high enough to deter a smooth and comfortable movement of such form of transport? - (Mr Paul Law) As I said, I came from Hong Kong and it might be that I was influenced by the criss-cross of many ferries at various points between Kowloon and Hong

Kong, including Macau and quite a number of the Lantau islands. Although I am not in the transportation authority there I find that, as an ordinary commuter, they are quite satisfactory. The concept I was thinking is since Singapore is an island and we are surrounded by the sea, we do not need to spend money on the infrastructure, like the U-bend, S-bend, suspensions and so on. Maybe we can make use of our natural environment, ie, the water, to move around. Singapore is not a very big continental land mass. It takes a short time to go from one point to another point.

966. Given that half of Singapore's southern coastal areas is confined to the harbour and wharves and given that there are not enough densely populated areas within the coastal location, except for Marine Parade, do you think it is practical to apply your suggestion to Singapore? - (Mr Paul Law) As I mentioned in my paper, the frequency and the amount of equipment or, shall I say, the capitalization for the project, we have first to do a basic study and research into the subject. The intensity at certain points requires what type of ferries, how large and how fast or what is the frequency and so on. It varies from point to point. Let me put it this way. In scarcely populated areas, maybe it is not worth the while for the capital investment, if you are thinking of the dollars and cents.

Dr Wang Kai Yuen] Mr Law, I am glad you brought up the case of Hong Kong. Indeed in Hong Kong there are a lot of

Dr Wang Kai Yuen (cont.)

ferries. But could you think of one case in Hong Kong where the ferry goes from Hong Kong island to Hong Kong island or from Kowloon to Kowloon? Would it be true that in the case of Hong Kong, most of the ferries either go from Kowloon to Hong Kong, Kowloon to Lantau or Kowloon to some other places? Can you think of a place where the ferry goes from Kowloon to Kowloon? Or can you think of a service where the ferry goes from Hong Kong island to Hong Kong island? In other words, in the same land mass there is a ferry to serve two points.

Encik Yatiman Yusof

967. It is more inter-coastal than inter-island? - (Mr Paul Law) I understand. It is very clear. I think we need not follow Hong Kong in that sense. We can lead. If certain projects are viable we do not need to follow Hong Kong. But I am just trying to say that given the waterway, our money could be saved from constructing roads, rails and underground tunnelling. Why do we not make use of the waterway? We need to get the ferries and maybe have a proper jetty. That is about all. I quite agree with you, Sir, and I do not think there is a ferry going from one point of Hong Kong to the other part of Hong Kong, maybe from Causeway Bay to Aberdeen. I quite agree. But in Singapore we are trying to solve the problem of transportation, congestion and so on. We can lead the way.

Dr Wang Kai Yuen

968. The reason why I bring up Hong Kong is that we all know that Hong Kong

is a free market situation and the people are also very highly enterprising. If the proposed solution is a viable one, we will have seen an example in Hong Kong? - (Mr Paul Law) Quite true. But I would say that possibly they do not have that because the area of Hong Kong island itself is much smaller than Singapore. Of course, with the combination of Kowloon, area-wise, the peninsula is larger than Singapore.

Dr Wang Kai Yuen] I think you have answered my question.

Mr Chiam See Tong

969. Mr Law, in Singapore's case, unless you can show that it is more convenient to go by ferry and the ferry takes a shorter time, how are you going to persuade commuters to go from land base transport to sea base transport? You take the example of, say, Bedok to Raffles Place. We have got a good highway along the coast. How are you going to persuade them to change their mode of travel? - (Mr Paul Law) I would put it in two ways. First, in my opening paragraph, I stated that the Government has to govern, ie, to look after the welfare of the people. Of course, it is good to ask the views of the people and feel their pulse and so on. But there will be a time when we have to more or less gently tell them what is right and what is the number of cars we can afford on land. That was my opening paragraph. They have to bear in mind that we need to tell the public, "Look here. We cannot afford to have so many cars beyond a certain figure and we have to put a stop there." I am referring to the working days. Of course, during Sundays and public holidays, not everybody goes out at the same time.

Some may be sleeping late. The Government surely has a way to figure out the number of cars we can afford. This is my main point.

970. Even if you travel by public transport, I think it is faster to go by road than by sea? - (Mr Paul Law) On the point of public transport, what I am trying to say is that if the shuttle bus can come right to my doorstep and pick me up and send me to the ferry I would enjoy it. We get into the ferry and when we arrive at the other point there is a shuttle bus to pick me up and send me right to my office. In the evening the reverse process takes place.

Encik Yatiman Yusof

971. Mr Law, can I ask you this question? If you have a shuttle bus service to pick you up at your doorstep and send you to the MRT station, within 20 minutes you are at your office. On the other hand, you have the shuttle bus service to pick you up from your doorstep, take you to the ferry station and you reach the office 45 minutes later. What

would your choice be? - (Mr Paul Law) Naturally, if the MRT is so diversified - may I use this word "diversified" - ie, it branches out in such a manner which is actually not the main purpose of the MRT. The MRT is mainly a central mode of transport and quite inflexible because of the rail.

972. You can have feeder service to fetch you from your doorstep, as you have recommended here for the ferry station? - (Mr Paul Law) If that is the case, it would be better to have the feeder service and the MRT. I quite agree with you. But what I have put here is that maybe we have another choice. We do not need to have so many ferries all at once moving around our sea. Maybe if there is a choice someone may like to take a ferry down for some peculiar reason of his own. Maybe with the sea around us, the air is fresher.

Chairman

973. Your suggestion is a very interesting one. We thank you very much for it? - (Mr Paul Law) Thank you.

(The witness withdrew.)

Chairman] With that, we have come to the end of our public hearing of the Select Committee on Land Transportation Policy. Thank you very much, ladies and gentlemen.

Committee adjourned at 5.00 pm.

**MINUTES OF PROCEEDINGS**

---

**1st Meeting**

---

TUESDAY, 26TH SEPTEMBER 1989

2.30 p.m.

---

PRESENT:

Dr Hong Hai (In the Chair).

Dr John Chen Seow Phun.

Mr Lim Boon Heng.

Mr Ng Pock Too.

Dr Augustine H.H. Tan.

Encik Yatiman Yusof.

ABSENT:

Mr Chiam See Tong (*on leave of absence*).

Dr Wang Kai Yuen (*on leave of absence*).

---

1. Dr Hong Hai was called to the Chair.
2. The Committee deliberated on its course of proceedings.
3. Agreed that a press release be issued inviting views and representations from the public on matters covered by their terms of reference, in particular, on the followings topics:
  - (i) use of car pricing or a quota system to control the car population;
  - (ii) feeder services from private estates to MRT stations;
  - (iii) evening Area Licensing Scheme;
  - (iv) car parking and road pricing charges as a means of regulating road usage;
  - (v) commercial vehicles; and
  - (vi) improvement of bus services.

Adjourned to a date to be fixed.

---

## **2nd Meeting**

---

TUESDAY, 26TH SEPTEMBER 1989

2.30 p.m.

---

PRESENT:

Dr Hong Hai (In the Chair).

Dr John Chen Seow Phun.

Mr Chiam See Tong.

Encik Yatiman Yusof.

ABSENT:

Mr Lim Boon Heng (*on leave of absence*).

Mr Ng Pock Too (*on leave of absence*).

Dr Augustine H.H. Tan (*on leave of absence*).

Dr Wang Kai Yuen (*on leave of absence*).

---

1. The Committee considered the written representations received.
2. The Committee considered requests for extension of time for written submissions.

Agreed that the closing date for the submission of written representations be extended by two weeks to Saturday, 7th October, 1989, and that a press release be issued accordingly.

3. Agreed that such institutions, groups or individuals as the Committee may deem necessary be invited to submit written memoranda to, or to give oral evidence before, the Committee.

4. Agreed that the Committee do meet again -

- (a) on Tuesday, 10th October, 1989, to review the written submissions received and decide on who are to be invited to give oral evidence before the Committee;
- (b) on Tuesday, 17th October, 1989, to hear oral evidence in private; and
- (c) on Wednesday, 25th and Thursday, 26th October, 1989, to hear oral evidence in public.

Adjourned till 2.00 p.m. on  
Tuesday, 10th October 1989.

---



### 3rd Meeting

---

TUESDAY, 10TH OCTOBER 1989

2.00 p.m.

---

PRESENT:

Dr Hong Hai (In the Chair).

Dr John Chen Seow Phun.

Mr Chiam See Tong.

Mr Lim Boon Heng.

Mr Ng Pock Too.

Dr Augustine H.H. Tan.

ABSENT:

Dr Wang Kai Yuen (on leave of absence).

Encik Yatiman Yusof (on leave of absence).

---

1. The Committee considered the written representations received.
2. Agreed that the following representors be invited to give oral evidence in public: —
  - (1) Mr Shriniwas Rai (Paper 11);
  - (2) Mr Ole H. Dyrhaug (Paper 12);
  - (3) Mr Paul S.Y. Law (Paper 14);
  - (4) The Singapore Chinese Chamber of Commerce and Industry (Paper 20);
  - (5) Mr Phang Kok Chiew (Paper 21);
  - (6) Mr Paul Dixon (Paper 22);
  - (7) NTUC Comfort (Paper 25);
  - (8) The Chartered Institute of Transport (Paper 26);
  - (9) The School of Building and Estate Management, Faculty of Architecture and Building, National University of Singapore (Paper 27);
  - (10) Dr Foo Ah Fong, Mr Abdul Hussain, Mr Robert Powell and Mr Jack Tan of the School of Architecture, Faculty of Architecture and Building, National University of Singapore (Paper 29);
  - (11) Dr Henry Fan, Mr Piotr Olszewski, Mr David J. Turner and Mr Tan Yan Weng of the School of Civil and Structural Engineering, Nanyang Technological Institute (Paper 30);

- (12) The Singapore Democratic Party (Paper 31);
- (13) The Singapore Taxi-Drivers' Association (Paper 34);
- (14) The Singapore Secondhand Motor Vehicles Dealers Association (Paper 37);
- (15) The Motor Traders Association (Paper 38);
- (16) The Vehicle Rental Association (Paper 41);
- (17) The Singapore Lorry Owners Association (Paper 45);
- (18) Mr Simon Lau Pak Wai (Paper 50);
- (19) Dr (Mrs) Phang Sock Yong and Mr Anthony Chin (Paper 55);
- (20) Mr Toh Choong Fook (Paper 56);
- (21) Mr Han Fook Kwang (Paper 59);
- (22) Mr Dennis Singham, Mr Lim Kian Seng and others (Paper 60);
- (23) The Automobile Association of Singapore (Paper 63);
- (24) Mr Christopher Herbert (Paper 64); and
- (25) Mr Aidi A. Rahim (Paper 66).

3. Agreed that the Committee do meet again -

- (a) on Monday, 16th October, 1989, at 11.00 a.m. to hear oral evidence in private from —
  - (i) the Permanent Secretary (Communications), Ministry of Communications and Information;
  - (ii) the Director-General of Public Works;
  - (iii) the Managing Director, Singapore Mass Rapid Transit; and
  - (iv) the General Manager, Singapore Bus Service (1978) Ltd; and
- (b) on Thursday, 2nd and Friday, 3rd November, 1989, at 9.30 a.m., to hear oral evidence in public.

Adjourned till 11.00 a.m. on  
Monday, 16th October, 1989.

---

#### **4th Meeting**

---

MONDAY, 16TH OCTOBER 1989

11.00 a.m.

---

PRESENT:

Dr Hong Hai (In the Chair).

Dr John Chen Seow Phun.

Mr Chiam See Tong.

Mr Lim Boon Heng.

Dr Augustine H.H. Tan.

ABSENT:

Mr Ng Pock Too (on leave of absence).

Dr Wang Kai Yuen (on leave of absence).

Encik Yatiman Yusof (on leave of absence).

---

1. The Committee deliberated.
2. Mr Tan Guong Ching, Permanent Secretary (Communications), Ministry of Communications and Information, Mr Phua Tin How, Registrar of Vehicles, and Mdm Lim Soo Hoon, Deputy Director (Land), Ministry of Communications and Information, were examined.
3. Dr Tan Swan Beng, Director-General of Public Works and Mr A.P.G. Menon, Chief Transportation Engineer, Public Works Department, were examined.
4. Mr Lim Leong Geok, Managing Director of Singapore Mass Rapid Transit, was examined.
5. Mr Tan Kong Eng, Managing Director, Mr Yik Ah Chui, Assistant General Manager (Administration) and Mr Tay Puan Siong, Assistant General Manager (Operations) of the Singapore Bus Service (1978) Ltd, were examined.
6. The Committee further deliberated.

Adjourned till 9.30 a.m. on  
Thursday, 2nd November, 1989.

---

## 5th Meeting

---

THURSDAY, 2ND NOVEMBER 1989

9.30 a.m.

---

PRESENT:

Dr Hong Hai (In the Chair).

Dr John Chen Seow Phun.

Mr Chiam See Tong.

Mr Lim Boon Heng.

Mr Ng Pock Too.

Dr Augustine H.H. Tan.

Dr Wang Kai Yuen.

Encik Yatiman Yusof.

---

1. The Committee deliberated.
2. Associate Professor Lim Lan Yuan, Head, Associate Professor Brian Field, Dr Sim Loo Lee, Senior Lecturer, Dr Steven Choo Kian Koon, Senior Lecturer and Dr Amos Koh, Senior Lecturer, of the School of Building and Estate Management, Faculty of Architecture and Building, National University of Singapore (Paper 27), were examined.
3. Mr Toh Choong Fook (Paper 56) was examined.
4. Mr Christopher Herbert (Paper 64) was examined.
5. Mr Han Fook Kwang (Paper 59) was examined.
6. Mr Jimmy Tan Tiang Hoe, Assistant Secretary-General, and Mr Ashleigh Seow, Central Executive Committee Member, of the Singapore Democratic Party (Paper 31), were examined.
7. Mr Ng Ser Miang, President, Mr Gerard Ee, Vice-President and Mr Humphrey Chua, Committee Member, of the Automobile Association of Singapore (Paper 63), were examined.
8. Mr Dennis Singham (Paper 60) was examined.
9. Mr Piotr Olszewski, Senior Lecturer, Mr David J. Turner, Lecturer, and Mr Tan Yan Weng, Lecturer, of the School of Civil and Structural Engineering, Nanyang Technological Institute (Paper 30), were examined.

10. Mr Abdul Hussain, Senior Lecturer and Vice-Dean of the Faculty of Architecture and Building, National University of Singapore (Paper 29), was examined.

11. Cpt (Res) Lye Hoeng Fai, Cpt (Res) Robert Bong, Maj (Res) Goh Hoon Say and Sgt (Res) Mohan Pillay, of SAFRA Team A (Paper 68), were examined.

12. Mr Ong Lay Khiam, Chairman, Economics Committee, Mr John Y Lu, Council Member, and Mr Khor Seng Ping, Assistant Secretary (Research), of the Singapore Chinese Chamber of Commerce and Industry (Paper 20), were examined.

13. Dr Tan Swan Beng, Director-General of Public Works, and Mr. A P G Menon, Chief Transportation Engineer, Public Works Department (Paper 71), were examined.

14. Mr Lew Syn Pau, General Manager, Mr Yang Ban Seng, Assistant General Manager, Mr Nah Tua Bah and Mr Ahmad Bachor of NTUC Comfort (Paper 25), were examined.

15. Mr Lim Kim Seng, President, and Mr Goh Eng Hai, Honorary Secretary, of the Singapore Taxi-Drivers' Association (Paper 34), were examined.

Adjourned till 9.00 a.m. on  
Friday, 3rd November, 1989.

---

## **6th Meeting**

---

FRIDAY, 3RD NOVEMBER 1989

9.00 a.m.

---

PRESENT:

Dr Hong Hai (In the Chair).

Dr John Chen Seow Phun.

Mr Chiam See Tong.

Mr Lim Boon Heng.

Mr Ng Pock Too.

Dr Augustine H.H. Tan.

Dr Wang Kai Yuen.

Encik Yatiman Yusof.

---

1. Mr Phang Kok Chiew (Paper 21) was examined.
2. Mr Ong Lay Khiam, Chairman, Economics Committee, Mr John Y Lu, Council Member and Mr Khor Seng Ping, Assistant Secretary (Research), of the Singapore Chinese Chamber of Commerce and Industry (Paper 20), were further examined.
3. Dr (Mrs) Phang Sock Yong, Lecturer, Department of Economics and Statistics, National University of Singapore (Paper 55), was examined.
4. Mr Lim Hong Koon, Vice-Chairman, Mr Simon Tan, Secretary, and Mr Hee Jau Yong, Secretary, Sub-Committee, of the Singapore Secondhand Motor Vehicles Dealers Association (Paper 37), were examined.
5. Mr Eugene Lim, President, Mr Steven Ooi, Vice-President, Mr Henry Lee, Secretary and Mr Steve Poh, Treasurer, of the Vehicle Rental Association (Paper 41), were examined.
6. Mr Simon Lau Pak Wai (Paper 50) was examined.
7. Mr Mike Gray, Chairman, Mr David Turner, Vice-Chairman, and Mr Michael Tay, Honorary Secretary, Land Transport Sub-Committee, of the Chartered Institute of Transport (Paper 26), were examined.
8. Mr Tan Guong Ching, Permanent Secretary (Communications), Ministry of Communications and Information, Mr Phua Tin How, Registrar of Vehicles, and Mr Lam Chih Tsung, Assistant Director, Ministry of Communications and Information (Paper 70), were examined.

9. Mr Robert Powell, Senior Lecturer, School of Architecture, National University of Singapore (Paper 29), was examined.

10. Mr Shriniwas Rai (Paper 11) was examined.

11. Mr Paul Dixon (Paper 22) was examined.

12. Mr Jack Tan, Senior Lecturer, School of Architecture, National University of Singapore (Paper 29), was examined.

13. Mr Lee Kok Chin, Chairman, Mr Francis Lee, Vice-Chairman, Mr Lim Quee Huat, Honorary Secretary, add Mr Fang Loo Khuay, Adviser, of the Singapore Lorry Owners Association (Paper 45), were examined:

14. Mr Ole H Dyrhaug (Paper 12) was examined.

15. Mr Paul S.Y. Law (Paper 14) was examined.

Adjourned to a date to be fixed.

---

**7th Meeting**

---

TUESDAY, 28TH NOVEMBER 1989

2.30 p.m.

---

PRESENT:

Dr Hong Hai (In the Chair).

Dr John Chen Seow Phun.

Mr Chiam See Tong.

Mr Lim Boon Heng.

Mr Ng Pock Too.

Dr Augustine H.H. Tan.

Dr Wang Kai Yuen.

Encik Yatiman Yusof.

---

The Committee deliberated.

Adjourned till 9.00 a.m. on  
Saturday, 9th December, 1989.

---



**8th Meeting**

---

SATURDAY, 9TH DECEMBER 1989

9.00 a.m.

---

PRESENT:

Dr Hong Hai (In the Chair).

Dr John Chen Seow Phun.

Mr Chiam See Tong.

Mr Lim Boon Heng.

Mr Ng Pock Too.

Dr Augustine H.H. Tan.

Dr Wang Kai Yuen.

ABSENT:

Encik Yatiman Yusof (on leave of absence).

---

The Committee deliberated.

Adjourned to a date to be fixed.

---

**9th Meeting**

---

TUESDAY, 19TH DECEMBER 1989

2.15 p.m.

---

PRESENT:

Dr Hong Hai (In the Chair).

Dr John Chen Seow Phun.

Mr Lim Boon Heng.

Mr Ng Pock Too.

Dr Augustine H.H. Tan.

Dr Wang Kai Yuen.

Encik Yatiman Yusof.

ABSENT:

Mr Chiam See Tong (on leave of absence).

---

1. The Committee deliberated.
2. The Chairman's report brought up and read the first time.
3. Resolved, "That the Chairman's report be read a second time paragraph by paragraph."

Paragraphs 1 to 17 inclusive read and agreed to.

4. Resolved, "That this Report be the Report of the Committee to Parliament."

5. Agreed that the Chairman do present the Report to Parliament when printed copies thereof are available for distribution to Members of Parliament.
-