

IPART has been asked to review public transport fares, although the terms of reference break this down into four separate areas and two separate inquiries (private buses and private ferries; STA buses and ferries and CityRail trains). The overriding point of this submission is that these four areas collectively offer public transport which must be taken as a whole when it comes to determining fare structure. Obviously this is a major departure from the way things are usually done at IPART. However, the submission will show that it is only by considering public transport as a whole that the terms of reference can be adequately met. In other words, this departure from the usual practice is the way that IPART can best comply with its terms of reference.

The structure of this submission is as follows.

1. An indication of how this submission will be relevant to all nine terms of reference.
2. An extended allegory on the importance of recognising a single commodity for what it is.
 - 3a. The fare structure from the customers view -point
 - 3b. The importance of considering the car as the alternative and the effect this has on patronage levels. In particular, there will be a discussion of elasticities to show how it is possible to equitably reduce fares without decreasing revenue and to equitably increase fares without losing patronage.
4. How a fare structure can reflect and enhance the synergies between operators, remove inefficient duplication, and encourage expansion of services.
5. What must be done.

1 THE TERMS OF REFERENCE

According to the terms of reference, nine factors are to be considered.

i. The cost of providing the services concerned.

This submission takes into account that, when public transport is taken as a whole, it is travel to the CBD that is more expensive to provide than to (most) other destinations, and that to a large extent it is peak-period demand that determines the costs of running services. This submission argues that fares should reflect these costs.

ii. Relativities with the Government owned bus services, including terms of service, efficiency, cost and ticketing products.

This submission ensures that the same “ticketing products” are available on private and Government services, and opens up scope for efficiency due to co-operation between services. The fare structure proposed also contains strong financial incentives for private operators to match Government operators in terms of service levels.

iii. The protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service.

This submission investigates the notion of monopoly. It argues that the constant presence of the car as an alternative and the special nature of transport provision mean that the conventional theories about monopolies, in which the monopoly holder exploits the consumer to its own excessive profit, do not apply. However, where a number of entities

with a monopoly over certain connected services end up not co-operating, both to their own detriment and even more so to the detriment of the consumer. Just because these abuses of monopoly power are the result of blindness rather than greed does not put them beyond the pale of IPART. These submission notes that this abuse of monopoly power does seriously affect prices, pricing policies and standards of service, and provides a workable alternative.

iv. The need for greater efficiency in the supply of services so as to reduce the costs for the benefit of consumers.

Following on (iii), this submission notes that the current fare structure encourages an inefficient duplication of services, the removal of which would be facilitated by the new fare structure this submission proposes.

v. The impact of pricing policies on borrowing and capital requirements and, in particular, the impact of any need to renew or increase relevant assets.

The fare structure this submission proposes has as one of its strong features financial incentives for the expansion of capital assets.

vi. The need to maintain ecologically sustainable development.

This submission has as its chief goal the reduction of car usage and increased use of public transport, which is essential if transport in greater Sydney is even to move in the direction of ecological sustainability.

vii. The social impact of recommendations.

This submission aims to increase public transport patronage by making it cheaper and more available in areas where it is presently poorly provided and expensive. This will greatly increase the mobility of a large group of people, and thus their ability to gain access to a wide range of socially desirable events and services. It will also reduce pressure on people who currently spend much time in “serve passenger” trips (often women transporting children or elderly relatives); reduce traffic accidents, reduce the effects of pollution from cars, make travel safer at night (more passengers means greater security), etc.

viii. Standards of quality, reliability and safety of the services concerned (whether those standards are specified by legislation, agreement or otherwise).

The fare structure this submission proposes has as one of its strong features financial incentives for an increase in service levels and improved reliability.

ix. The effect of any pricing recommendation on the level of Government funding.

This submission aims to keep direct Government funding to public transport (as a whole) at the same level, although it will significantly affect the headings under which the moneys are given. It is anticipated that the increase in travel by pensioners and other concession holders will not seriously affect this part of the Government subsidy, because the fares involved will, on the whole, be substantially lower. If it should be the case that concession subsidies increase significantly, however, precisely because of the lower

fares, each dollar of Government subsidy will be enabling far more kilometres of travel for the disadvantaged person deserving the subsidy, and thus this will overall be a far more effective use of Government funds.

A significant increase in public transport usage will slow and perhaps even halt the growth of car travel. As the provision of road infrastructure and all the related external costs are a major financial burden on the Government, the overall result should be positive in terms of Government spending.

This submission, therefore, meets all the terms of reference. Furthermore, where this submission does meet the terms of reference it does so to a far greater degree than any other submission that works within the present fare structure.

2

The Price of a Caffé Latte A Modern Allegory

In a parallel universe there exists a planet almost identical to Earth, which, in a region strikingly similar to New South Wales, has a metropolis also called Sydney. This Sydney closely parallels the Sydney we know apart from one major difference: they have a completely different retail structure for coffee and milk. Sometime in the middle of their nineteenth century it was decided that a government guaranteed supply of coffee was vital to the growth of the colony, and government run coffee shops were established in every major centre. Parallel to this decision was the granting of local monopolies to the vendors of milk, although early in their twentieth century milk vendors in the inner urban area were taken under state control. Right from the beginning this monopoly was taken very seriously, and this culture persists to this day: it is impossible to buy coffee in a milk bar or milk in a café. A milk bar sells glasses of milk, but never an iced coffee; the café sells a short black, but never a caffè latte or a cappuccino. The inhabitants of the parallel Sydney who want to drink their coffee white are forced to buy a short black at a café, move to the milk bar next door, buy a glass of milk (normally sold in a styrofoam cup), pour some milk into the cup, discard the rest, stir and drink. The procedure makes a caffè latte far more expensive and cumbersome than a short black.

However, the difficulties go beyond the need to make two purchases rather than one. Milk is sold only in glasses, not in bottles that can be taken home. In fact, sales of milk are rather low, and most of the private run milk bars make a profit only because of the provision of free milk to school children at morning recess and going home time. (Much of this milk gets wasted, but that is a different story.) Sales during the day are made largely to pensioners, who get milk at a discounted price (whether this is in order to prevent osteoporosis, to keep the milk vendors in business, or to capture the grey vote is a matter of dispute). While government milk bars stay open late, perhaps even to midnight, most private operators find that it is not profitable to sell milk after 7 or 8 pm: hours of opening are even less on weekends, and some are shut altogether on Sundays.

The inhabitants of this Sydney, however, are very fond of caffè latte, and in their ingenuity they have devised ways of ensuring that they can get one. They are hampered by two further differences between our universe and theirs: they have not perfected the pasteurisation process, causing non-refrigerated milk to go off very quickly; and, due to a

combination of events in their 1930s that involved both the spread of a nasty virus and a fatal shooting over the alleged theft of a lunchbox, workplaces have steadfastly refrained from providing fridges for common use. Starting with the very wealthy about a century ago, and being copied by the middle classes after the First World War, people began buying private fridges that they could keep in their work-place. Some fancy models even use the heat supplied by the fridge to boil the water to make coffee. A place for each worker to keep their fridge and coffee-making gear is considered something that each employer must in fairness provide, and most city offices provide rooms where workers can drink their coffee too (cafés object to BYO). Especially in the city, after an evening's entertainment or a meal at a restaurant, workers will go back to their office with their friends to have a coffee. For those who are having an evening out away from the place of work, there are ranks of small individual refrigerator cabinets available for hire (on a coin in the meter principle): you put your freshly purchased glass of milk in the fridge at the beginning of the evening (when the milk bar is still open), and use it for your caffè latte at the end. These hired little cabinets are often referred to as "cabs".

Needless to say, this individual refrigeration of a million glasses of milk a day costs companies dearly in terms of space and power, and is environmentally damaging in terms of extra energy consumption and greenhouse gas leakage. It also places people without regular employment at a distinct social disadvantage.

Of course, if the overall price of a caffè latte were lower, then more people would buy one, instead of settling for a short black or making their own coffee privately. And if sales went up, the milk bars could afford longer hours and lower prices. It would make sense, for instance, for a coffee shop to enter into agreement with the local milk bar, so that the café paid for the milk bar to stay open later, if the milk bar agreed to provide milk free to those who had bought a coffee from the café: the increased overall sales should cover the cost, and if a price rise is necessary, a caffè latte would still be much cheaper than under the old system. But that would involve the café providing milk, and the monopoly mentality is just too strong for this plan to get off the ground.

Almost everyone complains about the price of milk and coffee. There are accusations that the government is keeping the price of coffee low in marginal electorates to win votes, or that milk vendors are using their monopoly status to overcharge customers. The whole situation is investigated each year by ITRAP, the Independent Tribunal for Regulation and Pricing. Submissions to the tribunal from the sectors within the industry cite figures relating to the world price of coffee beans or the effect of drought on milk supplies. The industries have had some success in reducing the level of bureaucracy and removing restrictive work practices through enterprise bargaining. They even have tables that show that the price of a short black and of a glass of milk is lower in Sydney than in Melbourne or Perth or London. They never compare the exorbitant Sydney price of a caffè latte to the price in other cities because no one entity sells a caffè latte in Sydney; in Sydney the caffè latte is not considered a commodity. And so each year the price of coffee and of milk increases by a small percentage, and the caffè latte remains for many an impossible dream.

One year, shortly before handing down his submission on the prices of milk and coffee, the chairman of ITRAP, Professor Tim Perry, was entertaining an overseas visitor at a special theatrical performance in Parramatta. He had tried to secure a "cab" before the

show, but there were none left. He poured the glass of milk into a small bottle which he kept in his pocket throughout the performance. After the play was over, he promised his guest to take him to a local café where they could enjoy a caffè latte. But when he opened his bottle, the milk had turned, and its rancid odour made it clear that it was no longer fit for human consumption. Professor Perry was about to go to the milk bar next door, but it was already closed.

“What sort of place is this,” his guest grumbled, “where you can’t even buy a simple caffè latte?”

“I’m horribly embarrassed,” the Professor replied, “but this is just the way things are in Sydney; it is quite beyond my control”.

But just at that moment the waiter was passing by. “What do you mean, beyond your control? You are the one man who can change it. With one stroke of the pen tomorrow you can declare that the caffè latte is a simple thing, a single commodity, and that it must be marketed at a single price: it will then be up to the milk and coffee authorities to work out how to share their costs and profits.”

“I agree”, said one of two women seated at the table opposite. “You people from the top end of town never consider how different things are out here in the western suburbs.”

“My cousin owns a milk bar”, said another man. “He always says that the cafés could not survive without him, and yet the government pours money into the cafés and they never get a cent”.

“It’s sheer economic madness, the present system”, chimed in a uni student.

More and more interjections came from the few people in the café. Professor signalled to his guest and they hurriedly left, as all eyes were fixed on him.

“They were so angry at me”, he said, as they raced towards Parramatta Station. “If we had stayed any longer they might have killed me.”

“My friend,” his guest replied, “you mistake anger for disappointed hope. These people do not want you dead: they want you to be their hero. They are not asking you to slay a dragon or kill a giant, but simply to make an administrative decision that goes against a century and a half of ossified custom. There are so few people who can institute such far-reaching change with so little effort and such minimal personal risk. It is simply adopting the procedure used in almost every civilised country in the world. It also makes far more economic sense.”

“But it is not the sort of thing that ITRAP was set up by the government to do.”

“You are supposed to be independent, to step outside all the vested interests in political parties and the public and private sector to do what is best for the common good, especially for the poor and for the environment. If you are not occasionally going to say that the present system needs a total overhaul, then what are you doing in the job in the first place?”

“I agree that there is a certain economic sense in the argument, but we have never done this before.”

“Then there is all the more reason for doing this now. You took me to a play that showed a man acting heroically. Can you show me a hero in real life?”

And Professor Tim Perry went home and slept on it, and in the morning he decreed that a caffè latte was a single commodity, and should be priced as such. And there was great rejoicing among the people, particularly out in the west. And the milk bars extended

their hours, and the sale of coffee grew, and people sold the little private fridges and learnt to drink coffee in public and to meet people and exchange ideas.

And emboldened by this success, Professor Tim Perry said to himself, "I'm now going to do the same thing to the pricing of public transport".

3a THE FARE STRUCTURE FROM THE TRAVELLER'S POINT OF VIEW

This description is for travel in the metropolitan area. The same principles will hold for travel in the intercity area, but will need to be applied differently.

Furthermore, the prices quoted are illustrative only. Far more detailed research is needed to find the optimum fare levels.

I made a submission to IPART last year on CityRail and STA fares which proposed a similar fare structure. That submission detailed at length the gross inequities in the present fare structure. Of course, these criticisms are still valid, but for purposes of space I do not intend to reproduce them here.

A ticket is valid on all forms of public transport (train, private bus, Government bus, private ferry, Government ferry, light rail) within specified zone(s) and a specified time. The time could be 2 or 3 hours, one day, a week, or longer.

The zones are concentric and are based around the CBD.

From the beginning of one zone to the beginning of the next is normally about 10km; there is significant overlap of zones (3-5km).

Travel in the off-peak (inter-peak, evenings and weekends) is about 75% the cost of travel in peak periods.

Full-fare peak travel in the CBD zone costs \$2.40 for two hours. Similar travel in any other one zone costs \$1.20. Each additional zone costs \$0.80. When travel extends beyond 3 zones, the simple ticket is valid for 3 hours, not 2.

Day tickets are 2 – 2.2 the price of a peak 2hour (3 hour) ticket; weeklies are 8.5 – 9 times the price of peak 2-hour (3-hour) tickets.

Tickets bought after 7 p.m. are valid for the rest of the evening (i.e. until 4 a.m.)

Concession fare arrangements are the same for all forms of transport.

[This will probably require a (long overdue) major rethink of the \$1.10 senior concession ticket. As a suggestion, senior concession fare could be set at 25% of full fare. The day excursion ticket would become much more expensive, but for most journeys seniors would experience a decrease in fares.]

There will be a modest charge for parking at railway stations (where this will be economically viable).

The most important thing to notice about this fare structure is that it treats travel as a single commodity. People make journeys, and they want to pay for journeys. The present fare structure is based on rides: you pay for a ride on a bus, then a train, then a ferry, then another bus. Basing the price on rides makes sense at Luna Park, but elsewhere it is lunacy.

The next most important thing to notice is that this fare structure is vastly more equitable than the present fare structure.

The most expensive passengers to carry are those who commute to the city at peak period. This task strains the capacity of the present system, and any increase in patronage

requires an increase in rolling stock, staff and, especially for rail, infrastructure. Because of the large number of passengers, boarding times are greater (and buses battle against heavier congestion), and thus travel time is slower and so costs are higher. It is fair that these passengers pay more.

On the other hand, passengers on a city-bound service who alight before the vehicle reaches full capacity are not taking seats from other passengers, and their numbers could be increased at minimal extra cost to the operator, whereas there is negligible saving in operating costs if their numbers decrease. It is fair that these passengers pay less.

Similarly, passengers who travel in the off-peak are using vehicles that are already there, and the staff who serve them are often still on duty from the peak anyway. Moreover, if a passenger can be enticed to travel in the off-peak rather than in the peak, then it leaves room on the crowded peak vehicle for another passenger—and another fare. The passenger who can travel in the off-peak and is concerned enough about the price to do so is more likely to be a non-worker on a benefit and paying only a concession fare; the traveller who is already commuting by car and then switches when more room is available is more likely a worker paying full fare: the burden falls more heavily on those who can pay more, and more lightly on those who can pay less. Thus the surcharge on peak passengers is fair and equitable.

3b IS THIS FARE STRUCTURE ECONOMICALLY VIABLE?

The conventional argument is that the magnitude of the elasticity of public transport demand with respect to price is always less than one, and therefore that any decrease in fares, while popular, will not attract enough new patrons to make up for the fare decrease (and, on the other hand, any increase in fares will not deter so many patrons that there is an overall drop in revenue—it will, however, be politically unpopular).

The argument is not universally true, and even where it does apply, the proposed fare structure is sophisticated enough to avoid the effects it predicts.

Firstly, if fares were ten times what they currently are, hardly anyone would use public transport—certainly less than 10% of current patronage. Revenue would drop. Somewhere between the current levels and ten times as much, the elasticity has a magnitude greater than one.

Secondly, elasticity is not uniform across the system. In the past the STA has quoted figures to suggest that patronage levels are virtually unaffected by fare increases. But these figures are composed of different groups. Schoolchildren on free passes are completely unaffected by fare increases. Seniors with the \$1.10 ticket pay a price that is effectively falling in real terms. Commuters to the CBD or to UNSW know that the alternative, including parking costs, is so much more expensive that even with a fare increase the bus is still the cheaper way to make the necessary trip. Any effect that the price rise has on more vulnerable groups is swamped by the contributions to patronage figures of these virtually unaffected groups. It is unlikely that, at the time of any given fare rise, every population of users is critically vulnerable.

The purpose of the proposed fare structure is to be selective with fare changes. Fares are lowered where price is an important factor, so that the relatively large increase in numbers travelling minimises the revenue loss. Fares are increased where price is not an important factor, so that the relatively small patronage loss maximises the revenue gain.

To work out where the elasticities will be high or low is easy. Most travel in Sydney is done by car.¹ The most significant switch of modes will be between car (as passenger or driver) and public transport. The most important key factor in the elasticity of demand with respect to price of public transport will be the perceived price of travelling by car—including the cost of parking. Hence the difference between CBD travel and cross-suburban travel.

A secondary factor is the necessity to travel to the particular destination. Peak period travellers are more likely to be workers who have to travel at a particular time and to a particular destination; off-peak travellers are more likely to be able to choose both the destination and whether they travel at all, and are therefore more likely to vary their travel plans if the fares are too high.

How will all the gains and losses in revenue add up.

Judging from figures given in earlier submissions to IPART, about 35% of public transport patrons in Sydney are peak period commuters to the city, travelling by one mode only. As this group tend to have a higher proportion of full-fare paying travellers, they probably contribute at least 40% of fare revenue. I shall call this group A. There is another group whose fares will remain more-or-less the same. These are people currently using travel-passes or off-peak return tickets, or taking the train through the city to another destination. This group, called group B, accounts for about 20% of current fare revenue. That leaves group C, whose fares will decrease. These currently bring in at most 40% of current revenue.

Group A are, to a fairly high degree, “captive patrons”. They can be readily—and, as I never cease to argue, equitably—be made to contribute more to the total revenue. Let us say that their fares increase by 20%. This will cause some drop in patronage. However, the drop will be small because this group of patrons is “captive” to a high degree. The effect of this small drop in patronage on revenue will be further weakened because, as mentioned earlier, it will be concession travellers who will drop away (or move to another time slot), leaving more room for people presently not using the system because of crowding; these are likely to be full-fare paying passengers, and even if there is only half as many of them, they pay twice as much. So let us assume that the drop in full-fare paying equivalent passengers is 5%. This group previously brought in 40c for each dollar of farebox revenue. It now brings in 45.6c

Group B will continue to bring in 20c for each dollar of old farebox revenue

¹ This is why the “monopoly” that a private bus company (or the STA or SRA) holds does not obey the standard economic model of a monopoly. Remember that the product being sold is transport, and, especially in the outer suburbs, almost everyone has access to a car. However, there is one corridor in Sydney where a very large number of patrons do not have a car: the CBD to airport corridor; this is the place where public transport fares are exploitatively high. However, because there are several operators providing a service, it somehow seems to fall beyond the brief of IPART. There is one other very sound reason for not regarding private bus operators as monopolies in the standard sense. Their “monopoly” is local, but transport of its very nature is about moving from one locality to another. Most journeys in Sydney, if taken by public transport, would require the services of more than one operator. What is taking place in Sydney is not classical monopoly exploitation, but rather a Government backed fragmentation of what should be a natural unit, similar to the effect anti-trust legislation has had in the USA, which has stifled the development of an adequate mobile phone network.

The patronage levels for group C will increase. The crucial point is that these people are far more sensitive to a change in price, and a decrease in fares here will bring far more people to public transport than a fare increase of the same magnitude in group A will drive away. Moreover, these new customers are more likely to be paying full fares rather than concession. (Only 19% of private bus travellers pay full fare, as opposed to 48% of STA travellers.) If fares here decreased only by 20%, let us say that (full-fare equivalent) patronage rises by 15%. Whereas group C previously brought in 40c, it now brings in 36.8c. We are still 2.4c ahead of the old revenue base. These fares can go lower. Indeed, the purpose of designing a new fare structure is to see how low these fares can go before they have used up all the extra revenue generated by group A. And the lower the fares go, the more often they cross the magic barrier so that public transport travel becomes significantly cheaper than car travel, so that there is more and more incentive for people to make the modal shift. It is this modal shift that brings about high elasticities. The fares cited as examples in the previous section were arrived at by asking where this modal shift is most likely to occur.

The sort of fare structure I am arguing for will increase patronage without damaging the revenue base. (And there is plenty of spare capacity in the off-peak period, especially on private buses). The only question that needs research is exactly how the fares should be set to maximise this increase.

4 How the operators get paid

Farebox revenue stays the same. It is presumed also that Government subsidies should remain the same, even though they may now fall under different categories. For instance, the subsidy for free school travel will drop because in most cases the notional fares will decrease. Patronage will not be affected, as the patrons will still pay nothing. This means that the savings to the Government will need to be redirected to public transport under some other heading, otherwise there will not be enough money to run the system. But because this money would have been spent under the old system, this is not an extra burden on the public purse.

Under the new scheme, all fares collected must be handled by a central authority (independent of the STA and SRA, as well as of private bus operators). For the first year, all operators should be reimbursed by the central authority the amount that they earned in the previous year, indexed according to inflation and natural growth. They will have experienced patronage increases, but they will be due to the new fare system.

When things have stabilised after about twelve months, then the central authority will have to work out a basis to justify this payment to the operator. This basis should do two things that are presently not done.

- a) It should reflect the synergies in the system.
- b) It should encourage expansion of and improvement to services.

a) The synergies in the system

Trains run until about midnight. Most private buses stop long before then. If there is no connecting bus, then in many cases potential passengers cannot complete their journey, and so they make the whole trip by car or do not travel at all. Very often the cost of providing the extra bus is above the bus fares this would generate under the old system, but it is less than the combined extra bus and train fares. Putting on an extra bus should

provide enough revenue to pay for the bus and to have some extra left over for the railways. However, the present system does not allow for this sort of cross-subsidy.

The way operators are reimbursed should take into account this sort of synergy. Under the new system, there is one fare for a combined bus and train journey to the city, which is the same or only marginally more than the price of a rail-only journey to the city. If the bus operator were to get only the difference between the two, or the price that would be paid for the bus trip alone, then the operator would go bankrupt. It is obvious that the bus operator needs to be given a far larger share. In fact, as combined bus rail journeys contribute to only a small proportion of train trips, it is possible for the bus operator to be given quite a substantial proportion without seriously affecting railways revenue. (Even with the changed fare structure, most journeys to the city will be rail only because in Sydney almost every middle and outer suburban station has medium to high density housing concentrated around it: most people likely to use the train are within walking distance.) This means that the high price of a bus-train journey to the CBD will subsidise the low price of travel in the middle and outer suburbs, which, as often stated, is quite equitable. The exact ratio of the split between the bus and train operators will need to be calculated on a case by case basis, and this will be the job of the central authority. The provision that the returns at the end of the first year are, in real terms, the same as the returns for the last year under the old system will be the major way of ensuring equity.

b) Encouragement of expansion and improvement to services

The fact that the reimbursement for a bus-train journey is set by a central authority allows that authority to build in factors that encourage service improvement and expansion.

The bus operator's share would have a fixed part, x , and a variable part, y . There would be various factors that y would be multiplied by that reflect service quality.

The first factor would be proportion of timetabled services actually delivered. If one per cent of services are cancelled, instead of y the operator get only $0.99y$. (A late service could be regarded as a half of a cancelled service, say.)

Then there would be a factor for matching train frequency. If trains run every 15 minutes, but buses only half-hourly, then instead of y , the operator gets only $0.5y$. The same applies for hour of service. If there are 40 trains in the day, but buses miss the last 6, then y is multiplied by 0.85.

There would also be a factor for the directness of the route. If the route is so indirect that 25% of the people in the potential catchment area have to travel an extra 30%, then y is reduced by 0.25×0.3 .

All these factors are cumulative.

The railways would be reimbursed according to a similar formula. In particular, this would mean a penalty for replacing trains with buses during trackwork (or cancelling trains altogether). It would also mean a penalty for running trains along indirect routes, e.g. making most services from Liverpool to the city run *via* Granville rather than Regents Park. However, the factor would measure not distance so much as time taken, which would encourage express services.

The purpose of these factors is to provide a direct financial encouragement for improved operation. They also have a sound economic base in the synergies between the two modes. If the bus service to the station is poor, train patronage will be adversely affected. If the hours of operation are extended, then patronage will increase, not only when extra

buses are put on, but at all hours of the day. Someone who has to travel home by car drives into the city by car too, even though there is a bus operating; and the more journeys that are possible by public transport, the less incentive to by a car at all. Many of these effects are not adequately considered (if at all) by bus operators, but they are real. It is uneconomic not to consider them.

Finally, this system will discourage unnecessary duplication. For instance, most buses from the Ryde area travel to the CBD via the Warringah Expressway. While traveling on the expressway, they can neither pick up nor set down. If the buses travelled to a North Shore line station and terminated there, people could change to a train that is running already. This may require a little extra train capacity in the peak (but at a saving of bus capacity), but in the off-peak it would save buses running to absolutely no purpose. At present the STA stands to lose revenue if it does this; under the new fare system, it should stand to gain. These are the inefficiencies in the system that only an integrated approach can remove. Similarly, more STA buses could travel to Bondi Junction, or could terminate at Ashfield or Newtown, where there is spare capacity on the trains, even in the peak.

Similar savings could occur in the outer suburbs, where buses regularly travel to the closest major center (e.g. Parramatta or Liverpool) rather than to the closest station (e.g. Pendle Hill or Warwick Farm).

5 What must be done

This submission cannot undertake all the research and calculations necessary to produce a completely costed integrated fare structure. But it has argued that such a structure will meet IPART's terms of reference in a way that the continuation of the present structure cannot. What IPART must do in order to comply with its terms of reference is to insist that such a study be undertaken (by a body independent from the present operators). If the current directives from the Ministry of Transport insist that fares be determined on an operator by operator basis, then IPART must affirm its independence and clearly inform the ministry that, under those conditions it cannot meet its terms of reference. Enough research should be done so that when fares are renewed in 2003, there will be in place an adequately researched model that be clearly superior to the current one.